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Los Angeles

Always Crashing:  
Automobility and The Cinema

A dissertation submitted in partial satisfaction of the  
requirements for the degree Doctor of Philosophy  
in Film and Television

by

Michael James Stock

2021

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2021

## ABSTRACT OF THE DISSERTATION

Always Crashing:  
Automobility and the Cinema

by

Michael James Stock

Doctor of Philosophy in Film and Television

University of California, Los Angeles, 2021

Professor Chon A. Noriega, Chair

This dissertation examines the myriad of ways automobility and the cinema are interconnected: how they interface with and influence each other; how the cinema represents automobility on screen; how the Traveler-Spectator experiences automobility at the cinema; and how, ultimately, the cinema becomes organized around automobility after the 1920s. Within this book-length work, I explore the similar and shared poetics of spaces of automobility and the cinema, and how they each frame perception, revealing that while the cinema helps shape perception within the automobile, so too does perception in the automobile shape perception in the cinema. My multidisciplinary approach melds cinema studies with historiography, phenomenology, sociology, and architecture – using the works of Gaston Bachelard, Maurice Merleau-Ponty, Walter Benjamin, Wolfgang Schivelbush and John Urry as central reference points. My project addresses issues of embodiment and identification while examining the origins and implications of ideologies that are inscribed in automobility and disseminated through the cinema.

Mixing historiography with close textual analyses, my dissertation charts the development of the unique relationship between automobility and the cinema from the end of the 19<sup>th</sup> century to the beginning of the 21<sup>st</sup>: from the actualities and “phantom ride” films of the late 1890s and early 1900s to the proto-road movies of the 1930s, films noir of the 1940s, driving education films of the 1950s, and the first wave of road movies of the 1960s and 1970s that would eventually lead to the second wave that followed in the 1990s. Utilizing Mikhail Bakhtin’s conception of the chronotope, I also address the unique time-space of the automobile, and the resulting correlation of temporality and time consciousness. With the crash these conceptions of space and time are irrevocably altered – for those in the cinema, as in the crash itself. To contextualize this shift historically, I investigate the role that cinema played in crash research of the 1940s and 1950s, and how, in turn, the innovations of crash research pioneers like Hugh DeHaven, John Paul Stapp and Derwyn Severy would go on to forever alter the portrayal of automobility on screen, especially after the publication of Ralph Nader’s bestselling book, *Unsafe at Any Speed* in 1965. My dissertation closes with a discussion of how this interwoven relationship of automobility and the cinema has ultimately shaped the preferred mode of cinematic spectatorship in the 21<sup>st</sup> century – at home or on the go – via our home theater systems, laptops and smartphones.

The dissertation of Michael James Stock is approved.

Steve Anderson

Veronica Paredes

Akira Lippit

Chon A. Noriega, Committee Chair

University of California, Los Angeles

2021

Dedicated to my parents, Jim and Lindy,  
who made this all possible, from start to finish.

And of course to my daughter, Nico,  
and our cats (present and past), Iggy and Cary.

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## ACKNOWLEDGEMENTS

It has been a long journey. Longer than most (I'm told) for PhD students who (finally) finish their dissertations. I advanced to candidacy in 1997 (again, as I'm told). Writing this acknowledgements page in the spring of 2021 it hardly seems possible it was so long ago.

First off, I want to thank my current doctoral committee, starting off with my amazing Chair, Chon Noriega, who I worked with so long ago, and once again, and even more closely in this iteration. His help and guidance have been invaluable to me in the writing and researching of this dissertation, as well as the important process of applying for readmission to the Department and UCLA which preceded the writing and research and stretched out for its own interminable 6-month process. I also want to thank fellow UCLA Film and Television professors Steve Anderson and Veronica Paredes for agreeing to be on my committee long before ever meeting; for believing in the project from the beginning, and for their guidance and suggestions which will go on to help me in the next step of the process – rewriting this dissertation to make it into a publishable book. Finally, in the dissertation committee department – and well beyond that – I need to thank Akira Lippit, who was my required 'outside member' of my committee, famed film professor from UCLA's rival, USC. But of course our history stretches far longer than than 24 years, I must now confess...back to my days as an M.A. student at the University of Nebraska, Lincoln (where I also did my B.A., also in English). The courses I took there with Akira, and the discussions outside of the classroom we had during my years there as a young twentysomething graduate student in the English Department who wanted only to study film were invaluable, and in fact shaped the trajectory of all my years as an academic and scholar since then. He wrote me letters of recommendation, helped me rewrite my applications to graduate film school, helped me get my first teaching gig at UC-Irvine. So it meant the world to me to have him on my new dissertation committee when I reconstituted it two years ago in the summer of 2019.

Of course, I also have to thank my original doctoral committee which I assembled back in the late 1990s: Teshome Gabriel, Vivian Sobchack and especially Peter Wollen. The opportunity of working with Peter was the main reason I first came to UCLA – turning down offers for admission to NYU and USC (who, like UCLA, also offered me a full scholarship). As a PhD student at UCLA in the late '90s, I worked for Peter as both a Teaching Assistant and Research Assistant. Studying and working with Peter shaped my approach to both research and teaching, and I feel that my intellectual debt to him can never be repaid.

In the extended UCLA Film and Television family, I also need to thank Barrett Korerat, who has also been so helpful in all the various paperwork this journey has required and answers to at least as many questions (and also Cheri Smith for the most recent assistance). ALSO, a very special thanks to my peer and pal, Kevin Fisher, who was in my PhD class way back when, and has been one of my closest friends in the decades since then. Like Akira (and my parents), he always encouraged me to finish the dissertation and finish the degree, and his encouragement and inspiration in these past few years has been invaluable. Cheers mate.

Finally, I need to thank the members of my family...*again*: My parents, Jim and Lindy, my sister, Jill, my daughter, Nico, and our cats Iggy (present) and Cary (past). Finally, thanks for the endless support and encouragement these past few years of my girlfriend, Natalie.

I never could have accomplished this decades-long project without the love, support and encouragement of these amazing living beings.

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“The Failure of Punk,” *Dum Dum Journal #3: Punks and Scholars* (Spring 2013), 8-16.

“Trashing the Corpse aka The Net and Gross Value of the Living Dead,” *The Spectator*, Volume 26 No. 2, (Fall 2006), 70-80.

“Bodies and The Blot: Electronic Obscuration In Reality TV,” *The Spectator*, Volume 16, No. 2, (Spring/Summer 1996), 90-97.

“The Morphology of Puppets,” *1995 Journal of Literature and Psychology*. Ed. Frederico Pereira. (Buffalo, NY: Center for the Study of Psychoanalysis and Culture, SUNY, 1995), 193-199.

## **CONFERENCES AND PRESENTATIONS.**

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“The Starkweather Cycle: Constructing the Celebrity Killer Couple in 1950s Nebraska, the *Badlands* and Beyond...” Society for Cinema & Media Studies Annual Conference. Online. (March 5-6, 2021)

“Life after College Radio x Music Industry Society” Panel. University of California Radio Networks Conference. Loyola Marymount University, Los Angeles, California. (November 16, 2019)

“Discussing the Intersections of Music, Memory, Architecture and David Bowie.” Master Class Interview with Philosopher Simon Critchley. SCI-Arc, Los Angeles, California. (November 10, 2017)

“The Modern Filmmaker, the Music, the Short and Our Inner Fantasy,” Master Class co-taught with Jan Harlan, Executive Producer for Stanley Kubrick, on Film History, Film Production, Film Sound and Film Soundtracks. SCI-Arc, Los Angeles, California. (October 3-6, 2017)

“Stanley Kubrick: Behind the Scenes with Jan Harlan and Michael Stock.” Digital video. Multi-camera shoot for SCI-Arc Channel. SCI-Arc, Los Angeles, California. (2017)

“Punk Film and Punk Failure,” Faculty Talk. Moderated by Tim Ivison. SCI-Arc, Los Angeles, California. (March 31, 2017)

“Being A DJ in Los Angeles” Panel. University of California Radio Networks Conference. Loyola Marymount University, Los Angeles, California. (May 18, 2017)

“The Spectacle of Society, the Society of Failure: Failure and the Authentication of Punk.” Society for Cinema & Media Studies Annual Conference. Los Angeles, California. (March 17-21, 2010)

“Bodies and the Blot: Protecting and Projecting Identities via Electronic Obscuration,” Visible Evidence XI Conference on Documentary Film, USC, Los Angeles, California. (August 1994)

“On the Morphology of Puppets, Queering and Straight-Edged,” The International Conference of Literature, Film and Psychology. Sønderborg, Denmark. (June 1994)

## **CURATION AND PROGRAMMING.**

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Created, programs and hosts this monthly film series and also interviews special guests involved in making the films screened. Co-presented by Los Angeles County Museum of Art (LACMA). Guests interviewed: *William Friedkin, Jan Harlan, Syd Mead, Allison Anders, Penelope Spheeris, Richard Kelly, Jeannine Oppewall, Patti Podesta, Rick Carter, Alex McDowell, James Ward Byrkit, Timothy Morton.* Los Angeles, California. Los Angeles, California. (2017–present)

### **Cinefamily Cinemateque.**

Co-Programmer and Co-Presenter. Programmed and presented films, chaired panel discussions and DJ'd for Annual Film Series centered on Film and Music—especially Punk and Post-Punk. Los Angeles, California. (2009–2013)

**INTRODUCTION:  
WEAK ELECTRICITY AND STRONG GASOLINE:  
AN INTRODUCTION TO AUTOMOBILITY AND THE CINEMA.**

*Comfort isolates, on the other hand it brings those enjoying it closer  
to mechanization.*

-- Walter Benjamin<sup>1</sup>

*Once we accept that every new technology is an attempt to submit nature  
to its rules, that the physical means to achieve this is the machine, and  
that the resulting new reality is a machination, doppelganger, or alias of  
nature, we have to conclude that each time this happens the world  
becomes a world machine.*

-- Wolfgang Schivelbusch<sup>2</sup>

As author of the first book-length study of automobility and the cinema, let me be the first to admit it: *the train came first*. I suppose if I really wanted to hit the proverbial nail (or golden spike) on the head I should have titled this introduction: “Why The Train Always Comes First (in Film Theory); Or, What the Train Begat”. After all, as Wolfgang Schivelbusch points out in his groundbreaking 1977 book, *The Railway Journey: The Industrialization of Time and Space in the Nineteenth Century*:

‘Annihilation of time and space’ was the *topos* which the early nineteenth century used to describe the new situation into which the railroad placed natural space after depriving it of its hitherto absolute powers. Motion was no longer dependent on the conditions of natural space, but on a mechanical power that created its own new spatiality.<sup>3</sup>

But of course he was writing expressly about the nineteenth century, while I am writing predominantly about the twentieth.

In the 20<sup>th</sup> century, the automobile replaces the train as the preferred mode of mobility.<sup>4</sup> As totems of modernity and chaos, automobility and the cinema were never on parallel paths, but in fact intersecting regularly throughout history, from the very beginning, always crashing. Emerging at virtually the same time, in the last decade of the 19<sup>th</sup> century, their innovations both inspired and informed the other.

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<sup>1</sup> Walter Benjamin, “On Some Motifs in Baudelaire,” *Illuminations*, Trans. Harry Zohn (New York: Schocken, 1969), 174.

<sup>2</sup> Wolfgang Schivelbusch, *The Railway Journey: Trains and Travel in the 19<sup>th</sup> Century* (New York: Urizen, 1979 [1977]), xxi.

<sup>3</sup> Wolfgang Schivelbusch, *The Railway Journey: Trains and Travel in the 19<sup>th</sup> Century*, 10.

<sup>4</sup> Schivelbusch admits as much a hundred pages later, pointing out: “the motor road is a new kind of railroad.” (*The Railway Journey: Trains and Travel in the 19<sup>th</sup> Century*, 108)

There would certainly be no automobile without the locomotive. But could the cinema have existed without either? Lynne Kirby makes an excellent argument for the pervasive influence of the locomotive on the cinema in her 1997 book, *Parallel Tracks: The Railroad and Silent Cinema*, in a many ways, a cinematic accompaniment to Schivelbusch's book. (Certainly there would be no Kirby book, without Schivelbusch.) Kirby was the first scholar to mobilize the train as a model for early cinema, framing the inquiry of her landmark book in this manner:

Some would see the cinema's interest in the train as that of the double: the cinema finds an apt metaphor in the train, in its framed, moving image, its construction of a journey as an optical experience, the radical juxtaposition of different places, the 'annihilation of space and time.' As a machine of vision and an instrument for conquering space and time, the train is a mechanical double for the cinema and for the transport of the spectator into fiction, fantasy and dream.<sup>5</sup>

Following the lead of Wolfgang Schivelbusch, and his conceptualization of panoramic perception, Kirby limits her application of the train as a model to *early* cinema. The reason for this is threefold: *first*, because in the late 19<sup>th</sup> century and early 20<sup>th</sup> century, the train was still the preferred mode of industrialized travel, while the automobile was in its early, experimental stages and still considered by most to be merely a fad and an indulgence for the upper classes. *Second*, she does this for reasons of reflexivity, because she also is investigating imagery of the train in these early films. *Third*, as she points out:

The railroad should be seen as an important *protocinematic* phenomenon, a significant cultural force influencing the emergence and development of the cinema during the silent period in both the United States and Europe. A primary objective of this book is to show that the railroad was, first of all, a social, perceptual, and ideological paradigm providing early film spectators with familiar experience and familiar stories, with an established mode of perception that assisted in instituting the new medium and in constituting its public and its subjects. [...] At two basic levels – as a machine for producing and consuming images, and as the films themselves – the cinema developed images, myths, and perceptions of the train as much as the train informed cinema's own ways of conceiving of itself.<sup>6</sup>

Considering the experience of train travel as a sort of training ground for the cinema, teaching the earliest cinema-goers – who Kirby terms “*spectator-passengers*” – how to comprehend the spectacle of the new art form of the cinema at the end of the 19<sup>th</sup> century is

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<sup>5</sup> Lynne Kirby, *Parallel Tracks: The Railroad and Silent Cinema*, (Durham, NC: Duke University Press, 1997), 2.

<sup>6</sup> Lynne Kirby, *Parallel Tracks: The Railroad and Silent Cinema*, 2-3.

crucial to this work.<sup>7</sup> While the train was the pre-cinematic precedent and reference point for mobilized perception for the first generation of movie-goers, that would all change by the 1920s as the automobile began to replace the train as the preferred mode of mobility. There is an accompanying shift within the cinema as well. So, while Kirby uses the more passive “spectator-passenger” to describe the way in which trains structure early cinema, I argue that the cinema-goer from the 1920s on is a far more active viewer, and more accurately described as a *Traveler-Spectator*.

Of course there are any number of differences between traveling by train or automobile; all of which seem obvious at first glance, but which resonate on far deeper levels when considering either (or both) as models for cinematic spectatorship. Let’s start with the most obvious. On a train, of course, you are most likely a passenger. But with an automobile, you could either be the driver or passenger; and this role could change at any point in your journey. The unique mutability of this position in automobility is certainly applicable to the cinematic experience. As a spectator, one is constantly toggling between the fantasy of being in control and simply watching due to the use of POV shots, mise-en-scène, sound, voice-over, and, of course, driving sequences. As automobiles become the preferred mode of mobility on screen, *Traveler-Spectators* are given privileged access to a new kind of perception associated with automobility – suddenly in the passenger seat, or looking over the shoulder of the driver. But of course the automobile didn’t just suddenly materialize on movie screens in the 1920s. Its arrival in the cinema was gradual, popping up in films almost simultaneously with the cinema’s birth in the late 19<sup>th</sup> century. While cinema-goers of the time were prepared by the proto-cinematic experience of train travel, many of the first generation of drivers in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries were introduced to automobility on screen long before they actually crawled into an

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<sup>7</sup> Lynne Kirby, *Parallel Tracks: The Railroad and Silent Cinema*, 3.

automobile. Given the long and conjoined histories that automobility and the cinema share, it is surprising that this is the first book-length study of automobility and the cinema.<sup>8</sup>

In my dissertation, I will examine the myriad of ways automobility and the cinema are interconnected: how they interface with and influence each other; how the cinema represents automobility on screen; how the Traveler-Spectator experiences automobility at the cinema; and how, ultimately, the cinema becomes organized around automobility after the 1920s. Within this book-length work, I explore the similar and shared poetics of spaces of automobility and the cinema, and how they each frame perception, revealing that while the cinema helps shape perception within the automobile, so too does perception in the automobile shape perception in the cinema. My multidisciplinary approach melds cinema studies with historiography, phenomenology, sociology, and architecture – using the works of Gaston Bachelard, John Urry, Walter Benjamin and Wolfgang Schivelbush as central reference points. My project addresses issues of embodiment and identification while examining the origins and implications of ideologies that are inscribed in automobility and disseminated through the cinema. Mixing historiography with close textual analyses, my dissertation charts the development of the unique relationship between automobility and the cinema from the end of the 19<sup>th</sup> century to the beginning of the 21<sup>st</sup>: from the actualities and “phantom ride” films of the late 1890s and early 1900s to the proto-road movies of the 1930s, films noir of the 1940s, driving education films of the 1950s, and the first wave of road movies of the 1960s and 1970s that would eventually lead to the second wave that followed in the 1990s. Utilizing Mikhail Bakhtin’s conception of the

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<sup>8</sup> It becomes even more surprising when you look at the growing list of critical works on the train and cinema: Lynn Kirby, *Parallel Tracks: The Railroad and Silent Cinema*; Stephen Bottomore, “The Panicking Audience?: Early Cinema and the ‘Train Effect’,” *Historical Journal of Film, Radio and Television*, Vol. 19, No. 2 (1999): 177-206; Martin Loiperdinger, “Lumière’s Arrival of the Train: Cinema’s Founding Myth,” *The Moving Image* 4(1) (December 2003): 89-118; Christa Blümlinger, “Lumière, the Train and the Avant-Garde,” *The Cinema of Attractions Reloaded*, Ed. Wanda Strauven (Amsterdam: Amsterdam University Press, 2006): 245-264; Lauren Rabinovitz, “From *Hale’s Tours* to *Star Tours*: Virtual Voyages, Travel Ride Films, and The Delirium of the Hyper-Real,” *Virtual Voyages: Cinema and Travel*, Ed. Jeffrey Ruoff (Durham, NC: Duke University Press, 2006), 42-60; Patrick Keiller, “Phantom Rides: The Railway and Early Film,” *The Railway and Modernity: Time, Space and the Machine Ensemble*, Ed. Matthew Beaumont and Michael Freeman, (Oxford: Peter Lang, 2007). Tom Gunning, “An Aesthetic of Astonishment: Early Film and the (In)Credulous Spectator,” *Film Theory and Criticism*, 7<sup>th</sup> edition, Ed. Leo Braudy and Marshall Cohen (New York: Oxford University Press, 2009 [1989]), 736-750; Rebecca Harrison, “Inside the Cinema Train: Britain, Empire and Modernity in the Twentieth Century,” *Film History: An International Journal*, Vol 26 (2014): 32-57; Taina Tuhkunen, “Railway and Locomotive Language in Film,” *Film Journal* 3 (2016): 1-4; Ece Konuk, “Train and Early Cinema: Mobility and Speed in Cities,” *AMPS Proceedings Series 14: Moving Images – Static Spaces: Architectures, Art, Media, Film, Digital Art and Design* (2018): 215-223; Rebecca Harrison, *From Steam to Screen: Cinema, the Railways and Modernity* (London: I.B. Taurus, 2018).

chronotope, I will also address the unique time-space of the automobile, and the resulting correlation of temporality and time consciousness. As we shall see, with the crash these conceptions of space and time are irrevocably altered – for those in the cinema, as in the crash itself. To contextualize this shift historically, I will investigate the role that cinema played in crash research of the 1940s and 1950s, and how, in turn, the innovations of crash research pioneers like Hugh DeHaven, John Paul Stapp and Derwyn Severy would go on to forever alter the portrayal of automobility on screen, especially after the 1967 publication of Ralph Nader’s bestselling book, *Unsafe at Any Speed*. My dissertation closes with a discussion of how this interwoven relationship of automobility and the cinema has ultimately shaped the preferred mode of cinematic spectatorship – at home or on the go – via our home theater systems, laptops and smartphones.

Chapter One opens with a historiographic inquiry of the invention of the automobile and the origins of automobility. With the new transport network that accompanied automobility, the world both shrank and grew further and faster. The logic of the expansion of automobility in the U.S. aligned itself just as the railroad did, with Frederick Jackson Turner’s notion of the frontier, inscribing the equation of mobility with Americanism for many, just as surely as it inscribed the frontier and automobility into the myths of the cinema itself. Here, I address not only the inscription of ideology within automobility, but the role the cinema plays in its dissemination. I then turn my investigation to how the locomotive and its introduction of panoramic perception helps shape perception in the automobile, which in turn helps shape perception in the cinema. As we shall see, the “phantom ride” films of the late 19<sup>th</sup> century, typically associated with train travel, are actually responsible for introducing the mode of perception equated with automobility long before most filmgoers had even seen an automobile. (Most Americans alive at the birth of the 20<sup>th</sup> century got their first glimpses of automobiles in the cinema.)

While locomotive perception was protocinematic, as Kirby describes in her book, early films offered cinema’s earliest audiences a unique experience of protoautomobility. Although the



first twenty-five years of the cinema seemed to privilege the locomotive, in the 1920s there is a shift within culture as the automobile becomes the preferred mode of mobility that is mirrored in the cinema with a resulting shift in focus to the automobile and its mode of perception for the Traveler-Spectator. With the waning popularity of the phantom ride, and the rise of narrative film, the representation of automobility in the cinema is fused with special effects, starting with the early trick films at the turn of the 20<sup>th</sup> century, before advancing to the traveling matte in the nineteen-teens and twenties, and, starting in 1930, the use of rear-projection, which would define automobility for nearly four decades to follow.

Through a series of close textual analyses, I will explore the development of automobility on screen and its ramifications for the Traveler-Spectator from the phantom rides, actualities and trick films of the late 1890s and early 1900s, through the development of the traveling matte in the 1910s and 1920s, to the introduction and embrace of rear-projection in the 1930s. The chapter closes with an in-depth critical and textual re-assessment of rear-projection – a fundamental element of classic filmmaking that remains barely discussed, either critically or historically. When it is discussed, rear-projection continues to be critically maligned. However, I will show that its usage in portraying traveling sequences are, on the contrary, true to the experience of automobility. The confusions of time/space, interior/exterior, movement/stasis, actuality/fiction, are in fact the same set of paradoxes experienced every time you get into an automobile. With rear-projection the phantom ride had been absorbed into the *mise-en-scène*; simultaneously a film within a film, and a mirror image of the Traveler-Spectator in the theater whose movements were, necessarily, almost completely constrained in front of the near-constant motion on screen. Once in sync, they would offer a new vision of automobility, and access to worlds of automobility previously unseen by the average driver.

Chapter Two is a theoretical investigation of the four basic elements of automobility that are essential in constructing the unique time-space of the automobile: the interior, exterior, windscreen (i.e. windshield) and road. It is this unique combination of elements working

together that shapes our perception and bodily experience of automobility, both in the car, and in the cinema. Turning our attention to these elements, we can see how they work together to create a poetics of automobility that creates meaning in the automobile, and how, in turn, we experience automobility in the cinema as Traveler-Spectators.

While the cinema provided most of its earliest spectators with their first experience of automobility (and often, their first glimpse of an automobile) in the last decade of the 19<sup>th</sup> century and the first decade of the 20<sup>th</sup>, by 1930 there were more than 26 million automobiles in the U.S. and driving was literally an everyday experience for most film goers. This meant that the Traveler-Spectator would take his/her knowledge and experience of automobility to the cinema with them. When a character on screen got into a car, the Traveler-Spectator got in with them. My theoretical framework here originates with phenomenologist Maurice Merleau-Ponty's conception of the *habit*. As he explains in *Phenomenology of Perception*, habituating oneself to an automobile (or a hat or cane) "is to take up residence in them, or inversely to make them participate within the voluminosity of one's own body. Habit expresses the power we have of dilating our being in the world, or of altering our existence through incorporating new instruments."<sup>9</sup> So, while the traveler incorporates the nest of the automobile and all its options of comfort and power into his or her bodily space, as either driver or passenger, the Traveler-Spectator takes his or her habit with them to the cinema, allowing them access into the automobile interiors they see on screen.

Automotive history tells us that modern automobility begins in 1928 with the standardization of the enclosed interior, ensuring that an automobile now had a distinct interior and exterior. Within architecture, historians identify a corresponding transformation in the home – as the garage becomes a standard element and the front porch disappears altogether. As a result, the automobile becomes a mobile extension of the home itself, and it is the space of the automobile that becomes the preferred liminal space, a seemingly secure nest wrapped in a

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<sup>9</sup> Maurice Merleau-Ponty, *Phenomenology of Perception*, Trans. Donald A. Landes (New York: Routledge, 2012 [1945]), 144-145.

protective shell that provides a virtual living room on wheels. To address the interior and interiority of automobility (and their relationship to the exterior), I turn to Gaston Bachelard's conception of the nest and the shell in his analysis of space in the home in *The Poetics of Space*. The section devoted to the windscreen that follows is informed by Wolfgang Schivelbusch's conception of panoramic perception, and Lynne Kirby's application of the concept to her study of early train films. Here, as counterpoint, I also address the work of French philosopher Paul Virilio in his first book, *Speed and Politics: An Essay on Dromology* – first published in 1977 – the same year Schivelbusch's book *The Railway Journey* was first published in Germany.

In this chapter I turn my close textual analyses to the proto-road movies of the 1930s and early 1940s before turning to the films of Alfred Hitchcock and films noir of the late 1940s and early 1950s. While the films of the 1930s and 1940s use automobility to critique the socio-economic crisis of The Great Depression, the divide between the nest and shell of the automobile only seems to strengthen after World War II. As a result, the films noir of the late 1940s and early 1950s utilize automobility as a critique of the failure of the American Dream and with it, traditional conceptions of family, class and gender. Portrayed as an amoral space, the nest within a shell of the automobile, is seen as a threat to domesticity, revealing the stability promised by automobility in the five decades that preceded noir as a rapidly disintegrating illusion.

The chapter closes with a focus on the unique time-space that automobility creates, examining the correlation of temporality and time consciousness, utilizing Mikhail Bakhtin's conception of the chronotope. Working from his "chronotope of the road," introduced in *The Dialogic Imagination*, I introduce the "chronotope of automobility" to address the peculiar time-space we inhabit only in our automobile; a time-space that uniquely separates the point of origin from destination, home from work, public from private. It is this chronotope of automobility that works in tandem with Merleau-Ponty's habit, that puts us in the time-space of the automobiles we see on screen and the resulting sensation that is both a product of lived experience and bodily memory.

Chapter Three shifts to an examination of a seemingly unavoidable element of automobility: *the crash*. In this chapter I examine how the history of crash research has not only helped shape our understanding of auto safety, but helped shape the portrayal of crashes in narrative cinema, radically altering the on-screen representation of automobility, and ultimately our relationship to it in the world. The chapter opens with a historiographic focus on the timeline of ‘first crashes’ – starting with the very first car in 1771 – proving the point that for as long as there have been cars, they have always been crashing. I then focus my attention on the development of automobile safety by three pioneers in crash safety: Hugh DeHaven, John Paul Stapp and Derwyn Severy. As we shall see, the history of crash research has not only helped shape our understanding of auto safety, but helped shape the portrayal of crashes in narrative cinema, radically altering the on-screen representation of automobility, and ultimately our relationship to it in the world. For these crash safety pioneers, the role of the cinema was crucial, as it was the power of high-speed cinematography that allowed them to see what DeHaven termed “the second collision” – the collision of the human body with the body of the automobile – which was actually responsible for the injuries and/or death sustained in the crash. This unique time-space of the second collision, which I term the *chronotope of the crash*, is too fast to be seen by the so-called naked eye, and can in fact only be accessed via high-speed film, and viewed in slow motion in the cinema.

While the films of crash studies pioneers DeHaven, Stapp, and Severy of the late 1940s and early 1950s were the first to capture the car crash on film and examine it, such imagery would only reach an audience via the driver’s education films produced in the late 1950s and early 1960s. While Hollywood, like the rest of the world of narrative filmmaking, was still using rear-projection to portray automobility, these low-budget driver’s education films took the innovative camera mounts and high-speed film developed by the crash studies pioneers to provide the teenage Traveler-Spectator with his or her first glimpse of automobiles on real roads as well as actual crashes, injuries, and even deaths, revealing the life-threatening risks

associated with automobility. As a result, these films provide a stark contrast to the on-screen norm of automobility on screen in that period, which had been represented almost exclusively by the use of rear-projection. Presented in the form of the educational film, the transformation of the crash into a spectacle via slow motion revealed the true level of violence for the first time to the Traveler-Spectator.

There are two branches of the driver's education film, which I identify as two radically different sub-genres: the *collision-experiment film* (a term coined by Greg Siegel in his 2005 dissertation<sup>10</sup>) and something I am terming the *driving safety gore film*. The philosophical differences between these two different branches of auto safety films are as strikingly different as the visual components, each stirring and breathtaking in radically different ways, and each going on to inspire radically different styles and genres of narrative films (which are examined in Chapter Four). By performing close textual analyses on some key films in both sub-genres – collision-experiment films like *Crash Research* (1955), *Crash and Live!* (1955), *Safety Through Seat Belts* (1959) and *Safety Belt for Susie* (1962) and driving-safety gore films like *Safety or Slaughter* (1958) *Signal 30* (1959), *Red Asphalt* (1960), *Mechanized Death* (1961), *Wheels of Tragedy* (1963), and *Highways of Agony* (1969) – we see the establishment of film styles that will later be appropriated by radically different film genres in the 1960s and 1970s – the road movie and the highway horror film, while the driving safety gore film will go on to inspire body horror, found footage horror film genres of the 1980s and 1990s and the 'torture porn' that soon followed.

While a small handful of other authors have discussed the infamous *Signal 30*, very few of the other driving safety films have been discussed in any critical context, and up until this point few scholars have recognized the influence that the aesthetics and technical innovations they would have on mainstream narrative filmmaking in the decades that followed. My

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<sup>10</sup> Greg Siegel, "Technologies of Accident: Forensic Media, Crash Analysis and the Redefinition of Process" (PhD dissertation, University of North Carolina-Chapel Hill, 2005). Siegel's dissertation would be the basis for his 2014 book, *Forensic Media: Reconstructing Accidents in Accelerated Modernity* (Durham, NC: Duke University Press, 2014), although his chapter on driver's education films is not included, and remains unpublished.

dissertation aims to locate these important films within the broader timeline of film history, examining the new aesthetic of both automobility and crashes they introduced that would be appropriated by mainstream narrative cinema and continue to shape on screen representations of automobility and the crash to this day.

Chapter Four focuses on the transformation in automobility that occurs on the streets and on screen with the publication of Ralph Nader's 1965 best-selling book, *Unsafe at Any Speed*. Building on the research of crash pioneers DeHaven, Stapp, and Severy, Nader's book revealed just how common and dangerous car crashes were. The revelation sent shockwaves across the globe, causing a jarring cultural shift, and introducing a new paradigm almost-overnight. Afterwards, cars would be designed with the worst case scenario in mind: *the crash*. Described colloquially in that era as an 'epidemic,' and subsequently investigated through the newly-established lens of epidemiology, the car crash was a specific form of violence that suddenly weighed very heavily on the public's minds in this period.

To understand this sudden shift, I turn to the model of the stimulus shield conceived by Sigmund Freud and later refined by Walter Benjamin, Wolfgang Schivelbusch and Georg Simmel. The stimulus shield was a necessary protection mechanism developed within city-dwellers to enable them to live with the shock, stress and strain of urban living, and, equally, the product of automobility and the cinema. But with the publication of Nader's book, and its revelations regarding the violence and scale of car crashes in the United States, the stimulus shield cracked. Suddenly automobility was not something to be taken for granted, but rather, something to be feared. With the crack in the stimulus shield, the films in this era of the mid- to late-1960s begin to change. No longer are crashes mere plot points. Instead, they become transformative for both vehicle and its occupants. Crash sequences start playing out in real time, then eventually become stretched out in time and space via slow motion.

Building on the technical innovations introduced in the driving education films of the 1950s and early 1960s, this new approach to portraying crashes on screen would infuse narrative

filmmaking's portrayal of both automobility and crashes with a radical new level of visceralness, immediacy and realism for the Traveler-Spectator. In these films of the late 1960s and early 1970s we see a radically reconfigured vision of automobility on screen, embracing the new car mounts, and eventually the use of slow motion which the driving education films had introduced a decade earlier. While many of the defining films of this period center on automobility and the crash, they are more often grouped under the catchphrase "road movies" and examined through the critical lens of genre studies.

Automobility is rarely mentioned in any of the critical works about the road movie. The seemingly single-minded focus on the road that virtually every book and article about 'road movies' has is a bit puzzling. The car itself often registers as a sort of blindspot, as if the interface between the traveler(s) and the road is invisible; an invisible vessel. As my dissertation will reveal: it is *automobility* that is truly at the root of the road movie. Not (just) the road. By making automobility the focus in my examination of the classic 'road movie,' I will turn my critical eye to issues of autonomy and mobility, the system of roads and the system of rules governing over them, with the car at the center of this complex interrelational system.

Automobility is often seen as the container for a particular community – often, a self-contained bubble of subculture within the nest/interior of the automobile – moving through a larger world, whether it is the cityscape of San Francisco in *Bullitt* (Peter Yates, 1968), Midwestern Americana in *Bonnie and Clyde* (Arthur Penn, 1967) and *Badlands* (Terrence Malick, 1973), the broader landscape of the southwest, comprised of plains, mountains and deserts, as seen in *Easy Rider* (Dennis Hopper, 1969), *Vanishing Point* (Richard C. Sarafian, 1971), *Two-Lane Blacktop* (Monte Hellman, 1971) and *Duel* (Steven Spielberg, 1971), or the racing circuit, as seen in *Grand Prix* (John Frankenheimer, 1965) and *Le Mans* (Lee H. Katzin, 1971). In each of these films the Traveler-Spectator is presented with a particular eco-system of automobility. The road, of course, is just *one* element. The vehicle is another, and a far more complex one at that – especially once it conjoins with its occupants, forming an assemblage. While much of the

relatively large body of scholarship that focuses on the road movie addresses the genre in terms of the period of unparalleled social unrest and activism that frames it, I wish to apply a different lens to some of the oft-discussed films mentioned above -- specifically the transformation in on-screen representations of automobility and the conception of the crash following the publication of Nader's book.

The chapter closes with an examination of the second wave of road movies in the 1990s: *Wild at Heart* (David Lynch, 1990), *Thelma and Louise* (Ridley Scott, 1991), *True Romance* (Tony Scott, 1993), *Kalifornia* (Dominic Sena, 1993), and *Natural Born Killers* (Oliver Stone, 1994) and *Henry: Portrait of a Serial Killer* (John McNaughton, made in 1986 but didn't see theatrical release until 1990). Building from the framework of *Badlands* (Terrence Malick, 1973) and the true story of Nebraska spree killer Charles Starkweather and his girlfriend, Caril Ann Fugate, which inspired the film, each of these films reveals an explicit alignment of the road movie and the serial (or psycho) killer, and often are largely centered on the construction of the celebrity and the resonance of fame and infamy. In the road movies of the 1990s the serial or psychotic killer is in fact an even more common occurrence on the road than the crash. But the threat he/she/they pose(s) to automobility remains the same. It is always the nest at risk. Like the crash, these killers quickly expose the fragility of the relationship of the nest and shell of the automobile, and this form of vehicular violence and/or death too, can come at any place at any time. In each of these films the link between automobility and violence and death is inextricable.

The dissertation concludes with an examination of how the connections between automobility and the cinema established in the 20<sup>th</sup> century impact our interactions with the preferred screen of the 21<sup>st</sup> century – the mobile smartphone. Most of the innovations that the smartphone has supposedly introduced (for better and worse) were actually introduced first by automobility.

The conception of a privatized viewing experience now associated with the smartphone loops back all the way to the beginning of film history in the late 19<sup>th</sup> century when the



Nickelodeon was the only way to see the first films. When film exhibition began to move into theaters in the early 20<sup>th</sup> century, one of the most popular chains was *Hale's Tours and Scenes of the World*, where the theatre was designed to look like a locomotive car where “phantom rides” were projected onto a ‘window’ and motion was simulated in order to recreate the physical and visual experience of rail travel. The popularity of *Hale's Tours* soon spawned a host of imitators like *Tim Hurst's Auto Tours*, which offered a cinematic experience from the point of view of a giant touring car traveling through the streets of various cities. These “movie rides” also introduced a very different model for spectatorship, laying the groundwork for how we now watch films on our mobile devices, over a century earlier – not only in terms of this earliest fusion of cinema and mobility, but also its unique form of spectatorship, which encouraged viewers to look away from the screen and interact with other filmgoers, as they would if they were on an actual journey by train or touring car. This distracted mode of spectatorship is inherent to how we experience the cinema on our smartphones.

Just as automobility helped shape the rules of perception in the cinema, so too does the configuration of the Driver-Car, the 20<sup>th</sup> century's first and preeminent fusing of human and machine, prefigure the Human-Phone hybrid that now proliferates on our planet. Conceived of as a viewing device accessed from a space that is simultaneously interior and exterior, as well as public and private, automobility introduced the concept of the mobile screen long before the smartphone, with its windscreen preparing the Traveler-Spectator for his or her future interactions with the tactile smartphone screen. At the same time, the unique time-space of the automobile as a nest within a shell informs and educates the conception of the “bubble” that smartphone users conceive around them when interacting with it, similarly suspending them from the environment that surrounds them. In both cases the bubble is suspended from the environment around it in terms of both time and space. Similar to being in traffic, both time-spaces are similarly bifurcated from the environments that surround them, separating the point of origin from destination, home from work, public from private.

While the chronotope of the road provides the traveler in his/her car and the Traveler-Spectator in the cinema with intersections of sociality, infinite possible meetings, communions or conflicts, the *chronotope of automobility* keeps them both at a distance from one another – each of us isolated in our nest within a shell as we circulate through a community of equally encased drivers. Similarly, it is something I would term the *chronotope of the smartphone* which holds us suspended in the “bubble”. Returning to Merleau-Ponty’s conception of the habit we can see that the smartphone allows us to dilate our being in the world and incorporate this latest new favorite instrument into our being, even as it alters our existence. Taking this one step further, I argue that interaction with the mobile screen of the smartphone triggers our experience with the mobile screen of automobility, activating our habit, informing our experience, so that the smartphone user is, in effect, *always* a Traveler-Spectator. In this sense, in addition to providing the user a reflection of self, the smartphone is also providing a mirror on automobility.

Finally, the dissertation closes with a coda that takes a look at how conceptions of automobility have changed in 2020 as a result of the Covid-19 Pandemic. Although we have seen a marked shift from the automobile to the smartphone as the favorite object of mobility, now twenty years into the twenty-first century, with the Pandemic, we see a return to the centrality of the automobile. Between the surprising rebirth of the drive-in movie theater, the nationwide return of drive-in restaurants and the ever-increasing emphasis on delivery culture, automobility is more relied upon than it has been in years, especially in the United States.

As 2021 begins, the automobile is an unassailable extension of the home, and arguably, even safer. At the same time, the comfort that the nest of the automobile interior provides is now lined with an additional layer of nostalgia, which reinforces this feeling of safety. The fact that just the act of driving itself (or riding along as passenger) is reassuring of normalcy, illustrates Maurice Merleau-Ponty’s *habit* at work in yet another different way. Returning to instruments we know – like the automobile – activates our previous encounters with it. Even in

these extraordinary, unprecedented times, automobility remains a constant, and our experience of the automobile is a cumulative one, no matter where we are inside the car – at the wheel, in the passenger seat, or one of the seats behind that. This sensation is both a product of lived experience and bodily memory, and this is part of our experience of automobility. In 2021, that experience is reassuring, and crucial to navigating virtually all forms of entertainment outside the home in these Quarantimes. As one Washington Post writer recently quipped: “If the response to the pandemic has been dysfunctionally American, perhaps the solution, playing off a love of the automobile can be quintessentially American.”<sup>11</sup>

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<sup>11</sup> Steven Zeitchik, “This is What Going to a Splashy New Movie Outside Your House Feels Like Right Now,” *The Washington Post* (October 16, 2020). <https://www.washingtonpost.com/business/2020/10/16/drive-in-movies-pandemic/>. Accessed December 11, 2020.

**CHAPTER 1:**  
**HEAD ON: AUTOMOBILITY’S COLLISION WITH THE CINEMA,  
FROM PHANTOM RIDE TO REAR-PROJECTION**

*Everything good is on the highway.*

– Ralph Waldo Emerson<sup>12</sup>

*What goes on in the windshield is cinema in the strict sense.*

- Paul Virilio<sup>13</sup>

In the beginning, there was only one meaning. When the word “automobility” was first coined in 1896 it simply referred to the use of automobiles as the major means of transportation. Although the term originates alongside the first generation of automobiles, it was largely forgotten and unused until around the turn of the 21<sup>st</sup> century when Sociologists re-introduced it as part of their broader and ongoing examination of mobilities in general.<sup>14</sup> The term now has a much broader definition, referring to the series of interrelated systems stemming from and connected to the automobile, including but not limited to transportation, the environment, social customs and popular culture. Sociologist John Urry argues that “automobility can be conceptualized as a self-organizing, autopoietic, non-linear system that spreads worldwide and includes cars, Driver-Cars, roads, petroleum supplies and many novel objects, technologies and signs.”<sup>15</sup> Literary scholar Sidonie Smith calls automobility “the configuration of people, machines, landscape, urban geography, and culture that attends the increasing dependence upon the gas engine for transport in industrial and postindustrial societies.”<sup>16</sup> For communications scholar, Jeremy Packer, automobility refers to “the increased mobility that automobiles and other forms of personal motorized transportation allow,” and “the increasingly automatic nature of mobility,” as well as “the increased singularity and insularity that

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<sup>12</sup> Ralph Waldo Emerson, *Essays and Lectures* (New York: Library of America, 1983), 480.

<sup>13</sup> Paul Virilio, “The Last Vehicle,” in Dietmar Kamper and Christoph Wulf, Eds., “Looking Back on the End of the World,” *Semiotext(e)*: 188.

<sup>14</sup> Interestingly, this happens at the same time as the replacement of the automobile as society’s favorite technology by the smart phone, and the decline of the American auto industry (seeming to waver, if only for just a few months there, on the edge of extinction). None of these things should be filed under ‘C’ for Coincidence, and the last chapter will seek to investigate that connection.

<sup>15</sup> John Urry, “The System of Automobility,” *Theory, Culture, and Society* 21.4/5 (2004), 27.

<sup>16</sup> Sidonie Smith, *Moving Lives: Twentieth-Century Women’s Travel Writing* (Minneapolis: University of Minnesota Press, 2001), 1985.

automobiles allowed for,” all of which result in an “organization of society.”<sup>17</sup> For Cotten Seiler, historian and scholar of cultural studies, automobility is an example of what Michel Foucault called a *dispositif* – “a multifaceted, coordinating network of power [...] that comprises a ‘multilinear ensemble’ of commodities, bodies of knowledge, laws, techniques, institutions, environments, nodes of capital, sensibilities, and modes of perception.”<sup>18</sup>

Although a few scholars, like Kristin Ross, Anne Friedberg, Kathleen McHugh, Mitchell Schwarzer and of course Paul Virilio and Jean Baudrillard, have addressed certain aspects of “modes of perception” within automobility<sup>19</sup>, none have taken the next step to analyze how this perception specific to automobility is then presented on screen; and for that matter, how that presentation then loops back, Moebius-style, to influence perception in the automobile itself. This dissertation sets about to remedy that. The first chapter will begin by exploring the origins of automobility then go on to examine the origins of perception associated with it that actually appear in the cinema first, providing a sort of training ground for the first generation of drivers. As we will see, the representation of automobility in the cinema is fused with special effects from almost the beginning, starting with the early trick films at the turn of the 20<sup>th</sup> century, before advancing to the traveling matte in the nineteen-teens and twenties, and, starting in 1930, the use of rear-projection, which would define automobility for nearly four decades to follow.

## **THE BIRTH OF AUTOMOBILITY / AN ANTHROPOLOGY OF DRIVING BEHAVIOR**

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<sup>17</sup> Jeremy Packer, *Mobility Without Mayhem: Safety, Cars and Citizenship* (Durham, N.C.: Duke University Press, 2008), 293, 2.

<sup>18</sup> Cotten Seiler, *Republic of Drivers: A Cultural History of Automobility in America* (Chicago: University of Chicago Press, 2008), 5-6.

<sup>19</sup> See: Kristin Ross, *Fast Cars, Clean Bodies: Decolonization and the Reordering of French Culture* (Cambridge, MA: The MIT Press, 1995); Anne Friedberg, “Urban Mobility and Cinematic Visuality: The Screens of Los Angeles – Endless Cinema or Private Telematics,” *Journal of Visual Culture* 1.2 (August 2002); Anne Friedberg, *The Virtual Window: From Alberti to Microsoft* (Cambridge: The MIT Press, 2006); Kathleen McHugh, “Women in Traffic: L.A. Autobiography,” *Media/Cultural Studies: Critical Approaches*, Ed. Rhonda Hammer and Douglas Kellner (New York: Peter Lang Publishing, 2009), 423-439, Mitchell Schwarzer, *Zoomscape: Architecture in Motion and Media*, (Princeton: Princeton Architectural Press, 2004); Paul Virilio, “The Third Window: An Interview with Paul Virilio,” *Global Television*, Ed. Cynthia Schneider and Brian Wallis (New York: Wedge Press, 1988); Paul Virilio and Sylvère Lotringer, *Pure War*, Trans. Mark Polizzotti and Brian O’Keefe (Los Angeles: Semiotext(e), 2008 [1983]); Paul Virilio, “Dromoscopy, or The Ecstasy of Enormities,” Trans. Edward R. O’Neill, *Wide Angle* Vol. 20, No. 3 (July 1998), 11-17; Jean Baudrillard, *America*, Trans. Chris Turner (London: Verso, 2010 [1988]).

The histories of both automobility and the cinema are marked with false starts and alternate origin stories. Depending on whose book you're reading, or who you talk to (and where), you are likely to encounter as many different answers competing for the coveted title of the inventor of the automobile, as the inventor of the cinema. The multiplicity of origin stories is revealing of the populist appeal of each. Neither are the result of a singular genius, but a cross-cultural community of creators, unaware of each other's efforts, effectively inventing these innovations at various points across the globe at virtually the same time. The analogy of the wheel being invented multiple times in different locations immediately comes to mind and is surely applicable here, as it is the wheel that is perhaps the first and most obvious mechanism that both the cinema and the automobile share.<sup>20</sup> The wheel is a central component to both mediums. While the cinema requires only two – in the shape of the reels on the projector – the automobile has four on the road and more under the hood. So, for the purpose of this work, perhaps a worthy introduction to this chapter could and should be:

In the beginning, there was...the wheel.

Dating back to 3500 B.C., with the invention of the wheel by ancient Sumerians, our study really begins in the Bronze Age. Fitted to carts and chariots, wheels began as both a weapon and agrarian breakthrough. The world's first roads were the result of habit. Horses' habits perhaps deserve more credit than their drivers, for they were the ones to first find the easiest way through a terrain created and still defined by nature.<sup>21</sup> The earliest recorded form of the carriage is in the chariot, introduced around 1900 B.C. in Mesopotamia, initially as an innovation for warfare.<sup>22</sup> The carriage was a further anticipation of the transportation machine,

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<sup>20</sup> There are of course other mechanisms. As Kathleen McHugh points out: "The technological developments that led to the invention of the automobile, like those contributing to the cinema, came from machines that were analogous in function to the automobile, such as the bicycle and the locomotive, and those that were not, such as the sewing machine and the electric cash register." ("Women in Traffic: L.A. Autobiography," 428)

<sup>21</sup> Before that of course, you had human on horse. Arguably, the first (hu)man-machine, but entirely organic; a fusion of human and beast, fitted as early as 4000BC, shortly after the horse was first domesticated, with a saddle between, making it, perhaps, the first machinic element introduced in transportation; or something like a machine, part upholstery, part boot, part clothing. Already we see the machinic inspiring myth, as centaurs are held by most historians to be the result of a culture without horseback travel responding to this seeming apparition for the first time – starting with the Thessalian tribes, as seen by the Greeks – long before history repeats with the Aztecs' first response to the arrival of Spanish cavalrymen on horseback.

but still with the organic qualities of wood and the shell. The word, originating from Old Northern French *carriage*, meaning to carry in a vehicle, provides the basis for both the railway carriages and the original conception of the automobile as a “horseless carriage” in the 19<sup>th</sup> century, which is shortened to the word ‘car’ in the 20<sup>th</sup>.<sup>23</sup> The locomotive picked up a few of the carriage’s features and terms, and a preponderance of them carried over to the automobile, including upholstery, carriage lamps, running boards, trunk and toolbox. As sociologist Mike Featherstone points out in one of the first (and few) books devoted to automobility:

The auto in the term automobile initially referred to a self-propelled vehicle (a carriage without a horse). The autonomy was not just through the motor, but the capacity for independent motorized self-steering movement freed from the confines of a rail track. The promise here is for self-steering autonomy and capacity to search out the open road or off-road, encapsulated in vehicles which afford not only speed and mobility, but act as comforting protected and enclosed private spaces, increasingly a platform for communications media, that can be enjoyed alone or in the company of significant others.<sup>24</sup>

The strongest contender for first automobile was a steam-powered, two-ton, three-wheeled vehicle capable of a whopping 2 1/2 mph invented in 1769 by French army engineer Captain Nicolas Cugnot, and called a *fardier à vapeur*.<sup>25</sup> The French army immediately put it to wartime use – replacing the horse-drawn *fardiers* that were standard at the time – hauling artillery and ammunition to the front. Many scholars of automobility argue that Cugnot’s contraption was closer to a tractor than an automobile, dismissing it as a contender altogether. Other scholars cite Ferdinand Verbiest’s “Jesuit Rat Car” of 1672.<sup>26</sup> As the name suggests, the vehicle was actually only big enough to carry a rat, measuring just 65 centimeters long, and

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<sup>23</sup> Laszlo Tarr, *The History of the Carriage* (New York: Arco Publication Company, 1969).

<sup>24</sup> As automobile historian Steven Parissien explains: “The very word ‘car’, adapted from the railways and the carriage trade, had been in use since the 1880s. ‘Automobile’, ‘autocar’ and ‘motor car’, particularly common terms in America and France, had also survived from the carriage age; whereas ‘locomobile’, a term coined for the car in the 1890s, had not (the word survived into the twentieth century in Britain and France only as a designation for steam automobiles; confusingly, there was also an American car manufacturer called Locomobile, which survived until 1929).” Steven Parissien, *The Life of the Automobile* (New York: St. Martin’s Press, 2013), 109.

<sup>25</sup> Mike Featherstone, “An Introduction,” *Automobilities*, Ed. Mike Featherstone, Nigel Thrift and John Urry (London, Sage Publications, 2005), 1-2.

<sup>26</sup> See Steven Parissien’s excellent history of the automobile, *The Life of the Automobile* (New York: St. Martin’s Press, 2013), 4.

<sup>27</sup> Dan Albert, *Are We There Yet? The American Automobile Past, Present, and Driverless* (New York: W.W. Norton & Company, 2019), 15.

remains unconfirmed if it actually ran or was even built.<sup>27</sup> Considered a pioneer in both locomotive and automobile history, Richard Trevithick, built a full-sized steam “road locomotive” called the Puffing Devil in 1801. The vehicle debuted on Christmas Eve of that year, carrying six passengers from Camborne to Beacon, and is considered by most historians to be the first demonstration of steam-powered transportation.<sup>28</sup> Samuel Morey strapped his engine onto a buckboard wagon in 1826; Richard Dudgeon built his steam minibus in 1853 “to end the abuse and mistreatment of horses,” he claimed; Sylvester Hayward Roper started building steam carriages in 1859, but again, these were closer to tractors than automobiles.<sup>29</sup> The main reason these steam-powered “firsts” didn’t evolve into the modern automobile was the result of regulation, with many local governments passing bans on steam-powered vehicles for fear of boiler explosions.<sup>30</sup> As automobile historian Steven Parissien describes in the case of England:

Britain’s notorious Locomotive Acts of 1861 and 1865 stipulated that all steam cars should be occupied by at least three people, should be able to stop in an instant, and should be preceded by ‘a person walking at least twenty yards ahead, who in case of need shall assist horses...and who will carry and display a red flag.’ Steam cars were thus condemned to a speed slower than walking pace and were regarded as inherently dangerous modes of transport, liable to explode at any moment and kill or maim both driver and passers-by.<sup>31</sup>

In roughly the same window of history there are just as many inventors of electric-powered cars vying for recognition. Hungarian inventor Anyos Jedlik built his electric car in 1828; Scottish inventor Robert Anderson built his in 1832, while Vermont blacksmith Thomas Davenport’s car ran on an electrified track; 1835 saw electric cars invented in The Netherlands by Sibrandus Stratignh and Christopher Becker in Germany; although it is Frenchman Gustave Trouve who is

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<sup>27</sup> “A Brief Note on Ferdinand Verbiest,” *Curious Editions* (July 2, 2007). <http://www.curiousexpeditions.org/?p=52>. Accessed August 26, 2020.

<sup>28</sup> H.C.B. Rogers, *Turnpike to Iron Road* (London: Seeley, Service & Co., 1961), 40.

<sup>29</sup> Dan Albert, *Are We There Yet?*, 17.

<sup>30</sup> Dan Albert, *Are We There Yet?*, 17.

<sup>31</sup> Steven Parissien, *The Life of the Automobile: The Complete History of the Motor Car* (New York: St. Martin’s Press, 2013), 4-5.



most commonly credited with the invention of the electric car in 1880.<sup>32</sup> Although the common misconception is that electric cars didn't appear until the 21<sup>st</sup> century, the fact is of the 4,200 vehicles produced by 1900, 1575 of these were electric, while 1681 were steam-powered, and only 936 had internal-combustion engines.<sup>33</sup> By 1917 there were 50,000 electric cars in circulation, the steamer was almost entirely gone, and the number of cars on the road with internal combustion engines numbered almost 3.5 million.<sup>34</sup> Mirroring cinema's own development of competing formats, automobility also presented early travelers a myriad of options.<sup>35</sup>

Charles and Frank Duryea of Springfield, Massachusetts earned their fame in automobile history for inventing the first internal-combustion automobile in the United States in 1893. But it is Karl Benz who is commonly credited as the inventor of the modern car, thanks to his invention of the internal-combustion engine in 1878 in Mannheim, Germany, and the first car it powered, a three-wheeled model called the *Motorwagen* in 1885. However, it is French inventor Emile Levassor's series of innovations in 1891 that paved the way for the modern automobile we continue to drive today: moving the engine from the rear to the front of the car, cooling it with a front-mounted radiator, as well as introducing a crankshaft to link the engine with the gearing, using a clutch pedal and gear stick situated between seats to operate it, resulting in the first modern transmission.<sup>36</sup> It should be pointed out that hand-assembled luxury cars have never ceased to exist; but rather continued in a parallel arc of development to the mass-produced and more affordable family automobile. As Steven Parissien points out, "After the [Ford] Model T, perhaps the most famous car in the world in the years before the First World War was the Rolls-Royce 40/50, first introduced in 1906 and later named the Silver Ghost. [...] In hindsight, we

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<sup>32</sup> M. Guarnieri, "Looking Back to Electric Cars," *Proceedings HISTELCON 2012 -3<sup>rd</sup> Region-8 IEEE HISTory of Electro-Technology Conference: The Origins of Electrotechnologies* (2012), 1-6. <https://ieeexplore.ieee.org/document/6487583/>. Accessed August 26, 2020.

<sup>33</sup> Rudi Volti, *Cars and Culture: The Life Story of a Technology* (Baltimore, MD: Johns Hopkins University Press, 2006); quoted in Dan Albert, *Are We There Yet?*, 18.

<sup>34</sup> Dan Albert, *Are We There Yet?*, 25.

<sup>35</sup> As Kathleen McHugh also points out: "As with the Kinetograph, Kinetoscope and Cinematographe, various formats vied for dominance of the automobile market once the demand for the product caught on—specifically gasoline, electric and steam engines. ("Women in Traffic: L.A. Autobiography," 428).

<sup>36</sup> Steven Parissien, *The Life of the Automobile*, 9-10.

can see how the Ford Model T and the Rolls-Royce Silver Ghost pointed the way forward for the development of, respectively, the family and the luxury car.”<sup>37</sup> While Henry Ford is the name most commonly remembered when it comes to key early developments of the automobile, it is important to remember what Parissien points out:

Henry Ford was no inventor. Indeed, if he had died in 1907, he would have been dimly remembered as just one of the many pioneers of the early auto industry, one who had endured repeated financial failures only to strike lucky when all seemed lost. Ford’s pivotal role in twentieth-century history derives instead from his development of the first mass-market car, which was soon being made by the world’s first mass-production manufacturing system.<sup>38</sup>

Although large-scale production line manufacturing of automobiles originated in Ransom E. Olds’ Oldsmobile factory in Lansing Michigan in 1901, his system was based on stationary assembly techniques, while Ford’s later innovation in 1913 was to use the world’s first *moving* assembly line at his Highland Park Ford Plant in Dearborn, Michigan. With the introduction of the assembly line, Ford’s output doubled, as the assembly time dropped from 12.5 hours to 1.5 hours. Spurred by such radical changes, not only could Ford raise the wages of his employees, he could also drop the price of Ford’s famous Model T from \$825 to just \$575 (and by 1916 it would drop to just \$360), making it affordable to anyone who worked in the assembly line.<sup>39</sup> As Parissien notes, “For the first time, a car cost less than the average annual wage. A vehicle that was now within the reach of almost everyone, the Model T was effectively the first global car.”<sup>40</sup> By 1918, 49% of the cars on American roads were Model T’s; by 1921 that figure had risen to a still-unbeaten figure of 60%.<sup>41</sup> Combining functionality with affordability, the Ford Model T meant automobility was literally an option for everyone for the first time. Up until then, motoring by automobile was a privilege and luxury enjoyed only by the elite. In his

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<sup>37</sup> Steven Parissien, *The Life of the Automobile*, 33, 35.

<sup>38</sup> Steven Parissien, *The Life of the Automobile*, 13.

<sup>39</sup> Lee Vinsel, *Moving Violations: Automobiles, Experts, and Regulations in the United States* (Baltimore, MD: Johns Hopkins University Press, 2019), 32.

<sup>40</sup> Steven Parissien, *The Life of the Automobile*, 14.

<sup>41</sup> Steven Parissien, *The Life of the Automobile*, 14.

book on the history of regulating automobility, sociologist Lee Vinsel divides this elite up into two different but equally dangerous categories: the Auto Fiend and the chauffeur.

The Auto Fiend, an image common in popular culture during the first years of the twentieth century, primarily symbolized the earliest car owners: rich, young men who drove themselves because the thrill and danger of speed was, for them, the whole point of possessing an automobile. [...] Cars designed to be driven by chauffeurs often reflected the class division of labor seen with horse-drawn coaches. The owners and other passengers would ride in plush, well-appointed, enclosed cabins, while the chauffeurs would sit on platforms open to the elements. Some of these vehicles included candles or oil lamps in the interior compartments so that the wealthy occupants could see one another while conversing on the way to and from evening gatherings. To bystanders watching such illuminated autos, it would have seemed as if a lighted living room was rolling by.<sup>42</sup>

By contrast, the Model T was an automobile configured for and embodied by the American everyman. It's very construction and subsequent appearance both testified to the fact. Assembled by a group of anonymous and, for all practical purposes, interchangeable automatons, "to look closely at a Model T was to see an automobile for what it was: a jumble of parts and devices with different functions, bolted together."<sup>43</sup> Sparse, functional, and reliable, the Model T was the first statement in utilitarian automobility, and as such, utterly transformed the automobile industry. While in 1908 there were only 190,000 automobiles registered in the United States, by 1916 there were more than 3.6 million registered automobiles; 570,000 of those were Model T's manufactured that year alone; and by 1929, there were over 29 million automobiles in the United States.<sup>44</sup>

With the new transport network that accompanied automobility, the world both shrank and grew further and faster. The proliferation of roads, expanding exponentially by the middle of the Twentieth Century, meant a trip downtown, or back to suburbia, or to the next town, or even the next state, became quicker and easier than ever before. But at the same time, the road stretched out...literally across every country...in every direction. The logic of the expansion of

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<sup>42</sup> Lee Vinsel, *Moving Violations: Automobiles, Experts, and Regulations in the United States*, 20, 21, 23.

<sup>43</sup> Lee Vinsel, *Moving Violations: Automobiles, Experts, and Regulations in the United States*, 33.

<sup>44</sup> Lee Vinsel, *Moving Violations: Automobiles, Experts, and Regulations in the United States*, 32; Cotton Seiler, *Republic of Drivers: A Cultural History of Automobility in America* (Chicago: University of Chicago Press, 2008), 36.

automobility, in this country at least, aligned itself just as the railroad did, with Frederick Jackson Turner's notion of the frontier, as described in his landmark 1893 essay, "The Significance of the Frontier in American History." Sociologist Cotten Seiler explains:

The historian Frederick Jackson Turner's 1893 essay "The Significance of the Frontier in American History" attributed the nation's democratic characteristics to its vastness and purported emptiness, and the consequent high degree of mobility of its people. Even as Turner sounded the elegy for the frontier, he looked to mobility for the continuation of American exceptionalism. 'He would be a rash prophet indeed,' he wrote, 'who should assert that the expansive character of American life has now entirely ceased. Movement has been its dominant fact, and, unless this training has no effect upon a people, the American energy will continually demand a wider field for its exercise.'<sup>45</sup>

Written as a sort of elegy to the American Frontier, Turner's essay also came just at the cusp of the beginnings of both automobility and the cinema, and would, in effect, inscribe the equation of mobility with Americanism for many, just as surely as it inscribed the frontier and automobility into the myths of the cinema itself. And at the very center of this relationship was the road. Roads predated the automobile by centuries. Originally conceived for horses and horse-drawn carriages, these earliest of roads were a far cry from the modern roads we know today. Like the railroad that followed, early roads were determined by the terrain and the limitations of the vehicles using them – width, surface, angle of declension. Many of these roads were, in a sense, created by the horses themselves – not only the specific path a horse would follow, based on its strength, but the path led behind, literally stomped down by those hooves and the wooden, and then steel wheels to follow. According to sociologist Cotten Seiler, the proliferation of roads paralleled the rise of the 'public' as a social and political entity as early as the 18<sup>th</sup> century.<sup>46</sup> By the time we reached the 20<sup>th</sup> century, and the era of automobility, attitudes towards roadbuilding only intensified. As Seiler explains:

Roadbuilding projects were increasingly articulated and pitched to the public in a rhetoric that stressed crisis, progress, safety, democratic progresses, and freedom, yet at the same time forcefully rejected the legitimacy of 'planning' and collectivity more generally. Beginning in the 1920s, transportation policy makers rejected as outmoded or futile the expansion of long-distance passenger rail

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<sup>45</sup> Cotten Seiler, *Republic of Drivers*, 21.

<sup>46</sup> Cotten Seiler, *Republic of Drivers*, 63.

systems and the revitalization of urban mass transit. by contrast, an aura of inevitability and promise clung to automobility. The prevailing view held that the people had chosen the car, and the car was annexing urban space, which in turn needed to be reconfigured—there was no alternative. Automotive industries and their political familiars began in the 1930s to dismantle the rail infrastructure as they more fully automobilized the American landscape, and continued to develop the legal and behavior codes and supporting institutions of automobility.<sup>47</sup>

The “arterialization” of the landscape via modern roads marks the materialization of power and mastery over a natural environment. The fact that the U.S. government eventually stepped in to fund these roads, effectively marked roadmaking a distinctly American display of power. Seiler’s use of the metaphor of arterialization is apt, as the maps inevitably relate back to the human body, with the roads visualized as blood vessels and arteries; circumscribing too the body of the country, the land itself. These new roads cut into its surface like a surgical incision redirected the blood flow of an entire nation, simultaneously inscribing the automobile as its method of transportation. As a result, the flow of traffic became the measure of the signs of life of an entire nation. As Seiler explains:

For its drivers, the striated space of the road sought *legibility*—the condition of being knowable, classifiable, and predictable; hence between 1899 and 1954, each American state instituted mandatory vehicle registration (and taxation) and driver evaluation and licensing. the state-issued driver’s license—currently held by 87 percent of United States residents of driving age—has become the basic means of authorizing and verifying not merely driving ability, but individual identity and—as the recent controversy over licensing undocumented immigrants shows—national belonging.<sup>48</sup>

The recent controversy that Seiler mentions takes us back to the potentially dangerous and racist notion of the “arterialization” of roads – linking a notion of purity of national identity somehow to one’s right to be licensed to drive. Conceived of in this way, the driver’s license becomes a method of surveillance of who is traveling the roads, even more specific than the highway-mounted cameras that have come to be standard features in many cities; because the license is linked to the body itself. or, rather, *bodies* – of both the car and the driver. It is inseparable from both – arguably, the conduit between the two and the road itself – and

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<sup>47</sup> Cotten Seiler, *Republic of Drivers*, 63-64.

<sup>48</sup> Cotten Seiler, *Republic of Drivers*, 65.

enforceable by law (since there is a heavy fine involved if you're caught driving without it). As Seiler explains, while automobility is "both a disciplinary technology and a form of capital" that "empower[s] raced, classed, gendered and national subjects," at the same time "patriarchal social formations discounted women's competency behind the wheel."<sup>49</sup> Similarly, while "automobility's promise was one of escape from Jim Crow," at the same time

racist laws, social codes, governmental regulation, and commercial practices have attenuated the mobility of the black driver: segregated roadside mechanical and medical aid, food, and shelter; the discriminatory membership policies of motoring organizations such as the American Automobile Association (AAA); profiling of minority drivers by law enforcement and regulatory agencies; the racial-spatial politics of highway planning and placement, especially in urban areas; the racebound economics of auto financing and insurance underwriting; and the venerable practice of general police harassment for 'driving while black.'<sup>50</sup>

Genevieve Carpio's excellent recent book, *Collisions at the Crossroads: How Place and Mobility Make Race* takes this argument one step further and maintains that "mobility has been an active force in racialization over the twentieth century, one that has operated alongside 'place' to shape regional memory and belonging in multiracial communities."<sup>51</sup> For Carpio, the everyday status of (auto)mobility also means Latina/os experience racialization every day carried out by "forces as diverse as historical societies, Indian boarding schools, bicycle ordinance, immigration policy, incarceration, traffic checkpoints, and Route 66 heritage."<sup>52</sup> Building on the work of Eric Avila, Carpio's book argues that "we cannot fully understand racial formation without also considering the role of mobility."<sup>53</sup> To Eric Avila, it is the formation of roads, particularly the construction of the interstate-highway in the 1950s and 1960s that played a large part in the "racialization of the inner city itself, in which poor people of color, African Americans and Mexican Americans in particular, clustered within the places abandoned by whites and white ethnics who fled for suburban frontiers. The centrifugal thrust of white affluence and enterprise structured the

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<sup>49</sup> Cotten Seiler, *Republic of Drivers*, 11, 13.

<sup>50</sup> Cotten Seiler, *Republic of Drivers*, 108-109.

<sup>51</sup> Genevieve Carpio, *Collisions at the Crossroads: How Place and Mobility Make Race* (Oakland: University of California Press, 2019), 5

<sup>52</sup> Genevieve Carpio, *Collisions at the Crossroads: How Place and Mobility Make*, 4.

<sup>53</sup> Genevieve Carpio, *Collisions at the Crossroads: How Place and Mobility Make*, 12.

concentration of racial poverty in precincts that gave birth to the modern ghetto and barrio. Freeways helped seal the deal, erecting new barriers that isolated and contained poor people of color.”<sup>54</sup> For legal historian, Sarah Seo, the systematic policing of minorities has a history that “begins with the mass production of the automobile and the immediate imperative to regulate the motoring public,” and is a stark “consequence of mass automobility.”<sup>55</sup> As Seo concludes, “the automobile was not quite the unmitigated freedom machine it was celebrated to be. In fact, driving, or even just being in a car, was the most policed aspect of everyday life.”<sup>56</sup>

Then, as now, no one could drive without taking a test, applying for a license, registering the car, and buying insurance. And that was just the beginning. Once a person set out for a drive, speed limits, stoplights, checkpoints, and all the other requirements of the traffic code restricted how one could drive. A violation of any one of these laws authorized the police to stop the vehicle, issue a ticket, and even make an arrest.<sup>57</sup>

By the mid-1920s, when the Bureau of Motor Vehicles was established, and many states were requiring drivers to get licenses, America’s automobile market had begun to approach saturation. Henry Ford’s original goal had been achieved: most anyone in the country who wanted an automobile had one. For automobile manufacturers, now the question was: how do you get them to buy more? The answer came from General Motors’ CEO Alfred P. Sloan, Jr., who proposed a radical idea that was the antithesis to the standard set by Henry Ford: rather than continuing to make the same automobiles year after year (or, in the case of Ford, the same singular automobile: the Model T), GM would introduce annual styling changes that would encourage car owners to buy a new model every year. Selling the idea to the public, of course, relied upon advertising, which would not only showcase the new styles, but stress to the consumer that the previous model was then outdated, obsolete. The concept, later termed “planned obsolescence” set a new standard that sent other automobile manufacturers

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<sup>54</sup> Eric Avila, *The Folklore of the Freeway: Race and Revolt in the Modern City* (Minneapolis: University of Minnesota Press, 2014), 8. See also: Eric Avila, *Popular Culture in the Age of White Flight: Fear and Fantasy in Suburban Los Angeles* (Berkeley: University of California Press, 2004).

<sup>55</sup> Sarah Seo, *Policing the Open Road: How Cars Transformed American Freedom* (Cambridge, MA: Harvard University Press, 2019), 7.

<sup>56</sup> Sarah Seo, *Policing the Open Road: How Cars Transformed American*, 12.

<sup>57</sup> Sarah Seo, *Policing the Open Road: How Cars Transformed American*, 10.

scrambling to keep up, and on much broader scale, set a new standard for virtually all mass-produced consumer items that remains very much in play today. With the shift in focus of advertising, and the subsequent shift in interest in the consumer to style over utility, there is a resulting paradigm shift within all of automobility. While the first two decades of the twentieth century saw astronomical growth in the auto industry in the name of utility, with the automobile aligned with the basic needs of transportation, often aligned with work itself, in the decades that followed automobility seemed to begin to offer an affirmation of self, simultaneously an extension of the home and something close to a second skin; the *auto-self*. While sociologist Cotton Seiler gives credit for this shift almost single-handedly to Sloan's advertising department at GM, which "explicitly invited consumers to link the sovereignty, speed, and thrill of the automobile to the expression of their gendered and classed identities,"<sup>58</sup> it is the act of driving itself, being involved in automobility, that delivered and continues to deliver these sensations. Or, as Seiler puts it, "Superseding the automobile's utility or its induction of workers into 'industrial democracy' were driving's sensations of agency, self-determination, entitlement, privacy, sovereignty, transgression, and speed; these were instrumental in establishing automobility as a public good and thereby ensuring its growth as an apparatus."<sup>59</sup>

The one thing that is conspicuously missing from the above list of sensations is the new form of perception afforded by the automobile, utterly transforming the relationship of a person in an automobile with the world she or he is moving through, whether driver or passenger. This sensation of course was not entirely new to travelers in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries, many of whom had been on a train or trolley at some point. Although it was different in many ways, which we will discuss later in this chapter, perception on a train provides a powerful precedent that established a number of rules of looking.

## **THE WORK OF TRAVEL IN THE AGE OF MECHANICAL REPRODUCTION**

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<sup>58</sup> Cotton Seiler, *Republic of Drivers*, 38.

<sup>59</sup> Cotton Seiler, *Republic of Drivers*, 41.



The birth of modern mechanized mobility originates at the beginning of the 19<sup>th</sup> century with the invention of the locomotive in England in 1804. The first commercial railway line in England, the Stockton and Darlington, appeared more than two decades later in 1825 with the first American railroads, the Baltimore and Ohio, appearing two years after that. More railroads were established in Europe in the 1830s and 1840s, starting with Germany and France. The railroad, more than any other 19<sup>th</sup> century innovation, both drove industry and transported its products. As Lynne Kirby describes:

Established in the prime of industrial capitalism, the railways were Western culture's prime mover in stimulating the growth and creation of the coal, steel, and iron industries on which the railroads and the various industries served by them depended: lumber, livestock, ore, food, and manufactured goods. By introducing fast, mass transportation capable of shrinking the time and distance between the point of production and the point of consumption, the railroads stimulated both ends of the economy to unprecedented degrees, carving entire towns out of raw landscape and contributing to the growth of cities.<sup>60</sup>

Transporting passengers was a secondary concern, but caught on quickly in the United States in the 1840s. In the U.K., the 1870s and 1880s were considered the "golden age of railway travel," thanks to a combination of lower fares, greater comforts, and higher speeds.<sup>61</sup> While British and European trains were designed with social classes in mind, with different classes assigned to different cars, American trains were initially created as essentially class free, until luxury trains were introduced in the 1880s.<sup>62</sup> As the railroad expanded, the world seemed, paradoxically, to both shrink and expand to denizens of the 19<sup>th</sup> century. While the speed of transportation was increased exponentially, enabling travelers to reach other locations more quickly, resulting in a perception of distances shrinking, at the same time, the knowledge of other locations around the globe also increased, making the world seem to expand at the same time. As a result, perceptions of both time and space changed radically. As Wolfgang Schivelbusch describes in *The Railway Journey: The Industrialization of Time and Space in the Nineteenth Century*:

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<sup>60</sup> Lynne Kirby, *Parallel Tracks: The Railroad and Silent Cinema*, 4.

<sup>61</sup> Oliver Jensen, *Railroads in America* (New York: American Heritage, 1975), 22. Jack Simmons, *The Railways of Britain* (London: Routledge and Kegan Paul, 1972), 10.

<sup>62</sup> Oliver Jensen, *Railroads in America*, 222.

[...] the alteration of spatial relationships by the speed of the railway train was not simply a process that diminished space, but that it was a dual one: space was both diminished *and* expanded. The dialectic of this process states that this diminution of space (i.e., the shrinking of transport time) caused an expansion of transport space by incorporating new areas into the transport network. The nation's contraction into a metropolis, as described in the *Quarterly Review*, conversely appeared as an expansion of the metropolis: by establishing transport lines to ever more outlying areas, the metropolis tended to incorporate the entire nation. Thus the epoch of the suburbs, of the amoebic proliferation of the formerly contained cities into the surrounding countryside, began with the railroads.<sup>63</sup>

With the coming of the railroad so too did the perception of time itself change. Before the railroad, time was localized; each city literally had its own standard of time. (Schivelbusch points out that London ran 4 hours ahead of time in Reading, seven minutes and thirty seconds ahead of Cirencester time, fourteen minutes ahead of Bridgwater time.<sup>64</sup>) But with the foreshortening of distances enabled by train travel, suddenly this confusion of times translated to life-threatening danger on the rails. So, starting in the 1840s, railways started to standardize time – but did not coordinate their efforts. The result was that each company had its own standard time. It was only after the establishment of the Railway Clearing House that the companies finally decided to cooperate and form a national railroad network, adopting Greenwich time as the standard time.<sup>65</sup> Schivelbusch explains:

In 1880, railroad time became general standard time in England. In Germany, official recognition came in 1893; as early as 1884, an international convergence on time standards, held in Washington, DC, divided the world into time zones. [...] In 1889, the United States was divided into four time zones, essentially unchanged to this day; officially, at first the times within the zones were only regarded as railroad time; in practice, these became regional standard times, although they were not given legal recognition until 1918.<sup>66</sup>

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<sup>63</sup> Wolfgang Schivelbusch, *The Railway Journey: The Industrialization of Time and Space in the Nineteenth Century* (New York: Urizen, 1977), 35.

<sup>64</sup> Wolfgang Schivelbusch, *The Railway Journey*, 43.

<sup>65</sup> Greenwich time is the time kept at the Royal Observatory in Greenwich, founded in 1675. The precise standardization of time measurement dates from the foundation of the Royal Observatory that year. And initially this standard time was the response of expanding shipping traffic in the 17<sup>th</sup> century. "Vessels carried Greenwich time with them on their chronometers, as it was necessary for orientation and navigation. However, it was not used as a generalized norm for the division of the day. Greenwich time was still restricted to the walls of the cabinet that contained the chronometer during the voyage." (Schivelbusch, 43-44)

<sup>66</sup> Wolfgang Schivelbusch, *The Railway Journey*, 44.

The other radical paradigm shift that the locomotive introduced which is most germane to the study you are reading now is the new kind of perception that it enabled in its passengers – what Wolfgang Schivelbusch first identified as “panoramic perception.” It is this aspect that is also central to Lynne Kirby’s book, and will prove to be of equal purpose to this study, so I would like to reproduce Schivelbusch’s argument here as we will come back to it many times throughout this dissertation. Schivelbusch argues that early passengers on a train experienced travel as though they were on a projectile fired through a landscape, more like parcels than passengers. As a result, the landscape is largely lost, which affected all the senses. Sealed inside the cabin of the train, “smells and sounds, not to mention the synesthetic perceptions that were part of travel in Goethe’s time simply disappeared. The change effected in the traveler’s relationship to the landscape became most evident in regard to his sense of sight: visual perception is diminished by velocity.”<sup>67</sup> Schivelbusch goes on to argue that as a result of velocity, locomotive perception did away with the perception of the foreground, things in close-up (because they appeared as a blur, either imperceptible, or barely perceptible and inducing exhaustion and probably motion sickness). Instead, the traveler saw himself as part of the blurred foreground, and

that perception *joined* him to the landscape, included him in it, regardless of all further distant views that the landscape presented. Now velocity dissolved the foreground, and the traveler lost that aspect. He was removed from that ‘total space’ which combined proximity and distance [...]. As the traveler stepped out of that space, it became a stage setting, or a series of such pictures and scenes created by the continuously changing perspective. Panoramic perception, in contrast to traditional perception, no longer belonged to the same space as the perceived objects: the traveler saw the objects, landscapes, etc. *through* the apparatus which moved him through the world. That machine and the motion it created became integrated into his visual perception: thus he could only see things in motion.<sup>68</sup>

For the first time, humanity’s perception became aligned with the machine, and what’s more, with mobility. The apparatus of the train became an apparatus of vision – framed for the passenger by the window. As a result, the reality of the landscape outside was reduced to a

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<sup>67</sup> Wolfgang Schivelbusch, *The Railway Journey*, 55.

<sup>68</sup> Wolfgang Schivelbusch, *The Railway Journey*, 63-64.

panorama, or experience of flattened images. The resulting disconnect from the reality of that landscape meant that what these passengers were seeing outside became less real, more like “stage settings” or a “series of pictures and scenes.”

## **MOVING PICTURES BEFORE MOVIES: THE SPECTACLE OF PANORAMAS**

To appreciate the shift to unreality that panoramic perception enabled, it is helpful to know that for 19<sup>th</sup> century train passengers, the panorama was itself a pre-locomotive and proto-cinematic art form that had been experienced by a hundred million people between their first appearance in 1789 and the appearance of the motion pictures almost a century later. So that when passengers were experiencing the view from their train window as a panorama, it very likely recalled the art form they had seen in their local village or city.

The earliest version of the panorama was stationary, a 360-degree painting, the invention of Irish-born painter Robert Barker, whose first work, a painting of Edinburgh, was exhibited in London in 1789. By 1800 the panorama began to move, first appearing on the London stage as backdrops to theatrical productions, but by the early 1800s were appearing as their own distinct forms of entertainment.<sup>69</sup> The basic set up for a moving panorama involved setting up two large cylinders at opposite ends of a stage, “across which the canvas, generally eight to twelve feet high (though much higher in later years) and often hundreds of feet in length, was rolled before the audience.”<sup>70</sup> While the first generation of stationary panoramas featured primarily landscapes or cityscapes, moving panoramas would feature both scenic excursions and historical ones, including military spectacles with titles such as the “Mechanical Panorama of Bunker Hill,” “Panorama of the Sioux War,” “Battle of Algiers,” or the “Mexican War.” Eventually there were even narrative panoramas based on well-known works like *Pilgrim’s Progress* or *Paradise Lost*, or well-known historical spectacles like “The Destruction of

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<sup>69</sup> Angela Miller, “The Panorama, the Cinema, and the Emergence of the Spectacular,” *Wide Angle* Vol. 18, No. 2 (April 1996), 35.

<sup>70</sup> Angela Miller, “The Panorama, the Cinema, and the Emergence of the Spectacular,” 39.

Babylon” and “Pompeii.”<sup>71</sup> These “moving panoramas” were truly the world’s first “moving pictures.” In fact, film historian Angela Miller names the panorama the antecedent of the cinema, anticipating not only the drama, movement and spectacle of early film, but also its hitherto unprecedented compression of time and space.

As a popular entertainment rooted in a particular form of time/space construction, the panorama anticipated the motion picture. While participating in older forms of theatricality, it offered new experiences, primarily visual, that had no precedents in the culture of the theater. The combination of strikingly visual effects, apparitional space and real time, albeit collapsed or telescoped, was not only new, but a mode of experience generically linked to the cinema.<sup>72</sup>

Additionally, the *exhibition* of the moving panoramas in particular was also bound to mobility, traveling from city to city across the country, anticipating the form that film exhibition would eventually take. At the same time, the panorama was also an art form that satisfied “the optical (and geographical) hunger of American audiences by artificially compressing space in a manner anticipating mechanized travel, unrolling the American landscape before the eyes of audiences...”<sup>73</sup> In some cases, this unrolling literally covered miles. In fact, that is how they were often advertised, with John Banyard’s 1846 panorama of the Mississippi river touted in advertisements as measuring three miles in length, while John Rowson Smiths’s rival panorama claimed to measure four miles (!).<sup>74</sup>

Like the experience of train travel, which was to be experienced later in the cinema, the panorama offered a peculiar mix of staticity and mobility. While the panorama demanded the stillness of its spectators, in turn they were rewarded with the illusion of mobility, and in fact, unlimited travel to parts of the world that would otherwise remain inaccessible. In this sense the panorama also anticipates the both the travelogue that was so popular in early twentieth century cinema, and the *actualities* of the cinema in the 19<sup>th</sup> century that preceded them...and for that

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<sup>71</sup> Stephan Oettermann, *Das Panorama: Die Geschichte eines Massenmediums* (Frankfurt: Syndikat, 1980), 258-274.

<sup>72</sup> Angela Miller, “The Panorama, the Cinema, and the Emergence of the Spectacular,” 41.

<sup>73</sup> Angela Miller, “The Panorama, the Cinema, and the Emergence of the Spectacular,” 38.

<sup>74</sup> John Hanners, “The Great Three-Mile Painting, John Banyard’s Mississippi Panorama,” *The Journal of American Culture* (1981), 28; also Tom Gunning, “Landscape and the Fantasy of Moving Pictures: Early Cinema’s Phantom Rides,” *Cinema and Landscape*, Ed. Graeme Harper and Johnathan Rayner (Chicago: Intellect Books, 2010), 44. Although it should be pointed out that for some reason Gunning refers to Banyard by the wrong name, calling him “Banville.”

matter the preferred mode of mobility in the 21<sup>st</sup> century: the screen of your smart phone. All to say, the history of the armchair tourist stretches back much farther than most would think.

## **LOCOMOTIVE CINEMA; THE PROTOCINEMATIC EXPERIENCE OF TRAIN TRAVEL**

For Lynne Kirby, it is this paradoxical simultaneity of movement and stillness that bonds the train to the cinema. As she explains in the introduction of her book, *Parallel Tracks: The Railroad and Silent Cinema*:

In cinema, instability is built into the basis of the filmgoing experience: the perceptual illusion of movement is tied to the physical immobility of the spectator and to the sequential unfolding of a chain of still images that constitute the basis of every film. The degree to which that instability was either controlled or exploited is a central issue for both the railroad and the cinema during the silent film era. This issue recurs across the themes of this book themes that stem from the multiple ways in which the railroad forms a paradigm for cinema and defines a context for the figure in which the railroad and the cinema meet most profoundly: the spectator-passenger.<sup>75</sup>

Kirby goes on to describe the train as not only “cinema’s mirror image,” but also responsible for training locomotive travelers how to eventually become film spectators, via their experience of the moving landscape seen through the windows. As Kirby describes it, the train was in essence a “*protocinematic* phenomenon”; that in fact, “before there was cinema proper, it already existed in the railroad.”<sup>76</sup> She goes on to explain:

In both cases, passengers sit still as they rush through space and time, whether physically and visually, as on the train, or merely visually, as in the cinema. The train would then be cinema’s mirror image in the sequential unfolding chain of essentially still images and the rapid shifts of point of view that the train and cinema experiences entail. [...] As a *perceptual* paradigm, the railroad established a new, specifically modern mode of perception that the cinema absorbed naturally. In other words, the kind of perception that came to characterize the experience of the passenger on the train became that of the spectator in the cinema.<sup>77</sup>

Just as the train had helped shape the rules of perception and understanding necessary to the cinema, the movies repaid in kind through the insistent recurrence of images of locomotives and

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<sup>75</sup> Lynne Kirby, *Parallel Tracks: The Railroad and Silent Cinema*, 3.

<sup>76</sup> Lynne Kirby, *Parallel Tracks: The Railroad and Silent Cinema*, 2, 250.

<sup>77</sup> Lynne Kirby, *Parallel Tracks: The Railroad and Silent Cinema*, 2, 7.

train travel on screen for the first twenty-five years of the cinema. Train films gave spectators access to privileged areas of the train and with them privileged points-of-view. While a train passenger was limited to the panoramic perception enabled by the framed windows flanking the sides of the passenger cars, the cinema could reverse those positions, looking in windows at those passengers, or, better yet, provide access to areas unseen by any passengers – like the top of the train, cargo cars, or the much-vaunted position of the engineer, where you could actually see where the train was going, with the tracks cutting a parallel space in the landscape all the way to the horizon. So, not only did train films in the silent era teach spectators how to be passengers, with the introduction of narrative film in the early 1900s, they could just as easily learn to be engineers, railroad moguls and even train robbers.

#### **A CINEMA OF ACTUALITIES, ATTRACTIONS AND AUTOMOBILITY**

In the earliest period of cinema, before narrative took hold, the most popular films were non-fiction – brief documentary glimpses of real occurrences across a broad spectrum – termed “actualities”: workers leaving a factory, a man on a bicycle, a woman sneezing, a couple kissing, an elephant being electrocuted. These films were all short – from a matter of seconds to a matter of minutes, and most were comprised of a single shot. One of the most popular sub-genres in this category were termed “scenics,” often offering breathtaking views of foreign countries and exotic lands, and were the precursor to the popular travelogue films that would follow for decades. News events or “topicals” were also common fare, and were the precursor to newsreels of the early twentieth century and television news that followed. Fiction films soon followed, and quickly eclipsed the rest, becoming the most popular option the cinema could offer. But in this earliest period of the cinema, before narrative had become inextricably linked with the medium, spectators were drawn to the cinema to experience what Tom Gunning has famously referred to as “attractions”. As Gunning points out in his seminal essay, “The Cinema of Attraction[s]: Early

Film, *It's Spectator and the Avant-Garde*," actuality films outnumbered fictional films until 1906.<sup>78</sup> Gunning introduces his influential concept in this way:

The relation to the spectator set up by the films of both Lumiere and Méliès (and many other filmmakers before 1906) had a common basis, and one that differs from the primary spectator relations set up by narrative film after 1906. I will call this earlier conception of cinema, 'the cinema of attractions.' I believe that this conception dominates cinema until about 1906-1907.<sup>79</sup>

Going into more detail on just what the "cinema of attractions" is, Gunning points out that it is a "harnessing of visibility" and an "act of showing and exhibition," and, links it to the avant-garde of the early 20<sup>th</sup> century (Futurists, Dadaists and Surrealists), in its use of the cinema to break with its "enslavement to traditional art forms, particularly theater and literature."<sup>80</sup> The exhibition of the films themselves amplified this notion of film as an "attraction." As Gunning points out, the largest chain of theaters before 1906 was *Hale's Tours and Scenes of the World* where "not only did the films consist of non-narrative sequences taken from moving vehicles (usually trains), but the theater itself was arranged as a train car with a conductor who took tickets, and sound effects simulating the click-clack of wheels and hiss of air brakes."<sup>81</sup> So, not only was one of the most prominent elements of these attractions mobility – but the exhibition of these films in a setting that recreated the unique mobility afforded passengers on a locomotive. As Lauren Rabinowitz describes, these simulated train trips or "movie rides" coordinated sounds, motion pictures, and mechanical movement to reproduce the realism of train travel and to offer virtual travel to remote areas that the railroad had recently opened up for tourism in the United States, Canada and Europe."<sup>82</sup> The popularity of *Hale's Tours* spawned numerous competitors offering similar cinematic travel experiences, not only in

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<sup>78</sup> Tom Gunning, "The Cinema of Attraction[s]: Early Film, Its Spectator and the Avant-Garde, *The Cinema of Attractions Reloaded*, Ed. Wanda Strauven (Amsterdam: Amsterdam University Press, 2006 [1986]), 381.

<sup>79</sup> Tom Gunning, "The Cinema of Attraction[s]: Early Film, Its Spectator and the Avant-Garde, 382.

<sup>80</sup> Tom Gunning, "The Cinema of Attraction[s]: Early Film, Its Spectator and the Avant-Garde, 381.

<sup>81</sup> Tom Gunning, "The Cinema of Attraction[s]: Early Film, Its Spectator and the Avant-Garde, 383.

<sup>82</sup> Lauren Rabinowitz, "From *Hale's Tours* to *Star Tours*: Virtual Voyages, Travel Ride Films, and The Delirium of the Hyper-Real," 42. See also Lauren Rabinowitz, "Bells and Whistles": The Sound of Meaning in Train Travel Film Rides," *The Sounds of Early Cinema*, Ed. Lauren Rabinowitz and Abraham Geil (Bloomington, IN: Indiana University Press, 2001), 99-125.



the faux-setting of a fictional locomotive car, but similarly constructed touring cars, automobiles, and buses as well as simulations of air travel by balloon and water travel by boat.<sup>83</sup> For *Tim Hurst's Auto Tours*, Traveler-Spectators boarded a giant touring car described in one 1906 article as an “imitation sight-seeing bus” that gave moviegoers a tour of New York City:

The imitation car is suspended in such a manner as to make the effect very realistic. Apparently the vehicle is forcing its way through the labyrinth of traffic, with occasional stops at crossings, pedestrians dodge to the right and left and the lecturer recites the objects of interest along the route. New York City requires a film of 840 feet, and the route starts at the Flatiron building, covers Fifth avenue, crosses to Riverside Drive, returns down Broadway, invades the East Side, and crosses the Brooklyn Bridge. Another film, 800 feet long, pictures Washington in like manner.<sup>84</sup>

A 1906 *Scientific American* article explained the illusion, effect and process in more detail:

As the car does not move, it is necessary to have the landscape pass in review, and to the tourists reposing in their comfortable seats, there is an ever-changing picture in front of them. This consists of a series of rapidly-made views, secured by covering the route of the alleged trip with a camera mounted on a car. These are subsequently projected on the screen in front of the big auto. It is thus possible not only to make a tour of the city in which the new amusement feature is located, but it is proposed to present a varied programme, so that it will be possible to make similar tours of other cities and localities of interest.”<sup>85</sup>

While the novelty in viewing a train film at *Hale's Tours* would have been for moviegoers to compare their simulated experience to what they had no doubt experienced on real train journeys, the experience on a simulated “big auto,” would have provided most Traveler-Spectators in 1906 their first experience of automobility, as only the very rich had access to automobiles at that point. As Rabinowitz explains, each of these travel ride films acted to “foreground the body itself as a site for sensory experience,” and as a result “articulated a seemingly contradictory process for the spectator: they attempted to dematerialize the subject’s

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<sup>83</sup> In Rabinowitz's essays about *Hale's Tours*, she names a number of Hale's competitors: *Tim Hurst Auto Tours*, *Hurst's Touring New York*, *Auto Tours of the World*, *Cessna's Sightseeing Auto Tours*, *Trolley Car Tours*, *Palace Touring Cars*, *Citron's Overland Flyer*, *A Trip in California Over Land and Sea*, *Sightseeing in the Principal Cities*, *White and Langever's Steamboat Tours of the World* and *Hruby and Plummer's Tours and Scenes of the World* – but to date virtually nothing else has been published regarding these.

<sup>84</sup> “An Imitation Bus Trip,” *Automotive Industries* (March 29, 1906), 566.

<sup>85</sup> “Brief Notes Concerning Patents,” *Scientific American* (June 23, 1906), 520.

body through its extension into the cinematic field while they repeatedly emphasized the corporeality of the body and the physical delirium of the senses.”<sup>86</sup>

Gunning admits in the essay that his use of the word “attraction” originates from the early writings of Sergei Eisenstein, who used the word as a “unit of impression” of theatrical art that “aggressively subjected the spectator to ‘sensual or psychological impact.’”<sup>87</sup> While Eisenstein felt theatre should be comprised of a “montage of attractions” that prevented the theatergoer from being subsumed by illusion, Gunning’s notion of the attraction is, similarly, “that of exhibitionist confrontation rather than diegetic absorption.”<sup>88</sup> Gunning is careful to point out that “then, as now, the ‘attraction’ was a term of the fairground, and for Eisenstein and his friend Yutkevich it primarily represented their favorite fairground attraction, the roller coaster, or as it was known then in Russia, the American Mountains.”<sup>89</sup> While Gunning doesn’t necessarily equate the “cinema of attractions” with mobility, Eisenstein’s original use of the term is certainly fused with it, and within that figure of mobility, a certain controlled form of violence, or spectacle of violence. The lure of the rollercoaster, after all, then as now, is a ride that provides a safe vantage point on a journey that seems dangerous, even life-threatening. To provide that paradox, the passenger is strapped into his or her seat, again doubling the paradox of immobility and extreme mobility that the cinema, the locomotive and automobility offer.

## **THE BIRTH OF A MOBILE CINEMA**

Fusing the rollercoaster, the locomotive and the cinema (and anticipating the POV of automobility), one of the most popular of early actualities at the turn of the century was the sub-genre of the “*phantom ride*” film. Lasting anywhere from one minute to over six, the phantom ride films were shot from the front of a moving vehicle – a train was the most common, but

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<sup>86</sup> Lauren Rabinovitz, “From *Hale’s Tours* to *Star Tours*: Virtual Voyages, Travel Ride Films, and The Delirium of the Hyper-Real,” 42.

<sup>87</sup> Tom Gunning, “The Cinema of Attraction[s]: Early Film, Its Spectator and the Avant-Garde, 384.

<sup>88</sup> Tom Gunning, “The Cinema of Attraction[s]: Early Film, Its Spectator and the Avant-Garde, 384.

<sup>89</sup> Tom Gunning, “The Cinema of Attraction[s]: Early Film, Its Spectator and the Avant-Garde, 384-385.

others were shot from trams, trolleys, streetcars, subways, boats and eventually automobiles. Most often the vehicle that the camera (and cameraman) was mounted to remains unseen in the film, hence the ghostly or “phantom” nature of these films. The resulting POV ranges from striking to spectacular, putting the spectator in the position of traveler, very literally moving through the space that the camera moves through. Discussing the origins of the phantom ride film in his book, *The Railway and Modernity: Time, Space and the Machine Ensemble*, Peter Lang explains:

In the evolution of the moving-camera film, the railway panorama was superseded by the *phantom ride*. Unlike *panorama*, the term *phantom ride* does not seem to have existed prior to its use to describe a certain kind of film, though it has since diffused into the language of horror fiction. One might understand *phantom* merely as a modifier, meaning illusory, in which case railway panoramas can be and sometimes are described as phantom rides, but the term is more specific to a view in a direction close to that of the line of travel. In its strictest sense, a *phantom ride* is a film which looks forward from the front of a moving railway engine, a view then seldom encountered in ordinary experience, even by an engine driver.<sup>90</sup>

The phantom ride film was preceded just a year earlier by the cinema’s first travelling shot, captured by the Lumière brothers’ cameraman, Alexandre Promio, in 1896, when he set up his tripod-mounted camera in a gondola in Venice, Italy to create *Panorama du grand pris d’un bateau* [*Panorama of the Grand Canal, Venice*]. In the minute-long actuality (or “scenic” as these short travelogues were termed), we are given a brief, but striking panorama view of a journey down a canal in Venice just before the turn of the century. Only our brief glimpse of a passing motor boat situates the scene in a time that is post-Industrial Revolution, otherwise our view of both the buildings and gondolas we pass could easily have come from an earlier time.

The breathtaking spectacle of a moving camera caught on quickly, especially in the scenic of this period, establishing a connection between mobility and tourism that would be further explored in the panorama films and phantom ride films that followed. While panorama films like *Panorama du grand pris d’un bateau* offered a view of a landscape or cityscape

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<sup>90</sup> Patrick Keiller, “Phantom Rides: The Railway and Early Film,” *The Railway and Modernity: Time, Space and the Machine Ensemble*, Ed. Matthew Beaumont and Michael Freeman, (Oxford: Peter Lang, 2007), 75.

passing by – often compared to the POV one would get by staring out of a window of a train – in the phantom ride films, the spectator becomes a traveler who is aligned seamlessly with the camera; its movement becomes our movement. Although the vehicle of movement remains invisible, our view of the setting – train tracks, trolley wires overhead, water around us, waves breaking – reveals that we have become fused with a technological means of mobility operating in tandem with the technology of the motion picture camera.

Two films released in 1897 compete for the distinction of being the first phantom ride film: *Départ de Jérusalem en chemin de fer* [*Leaving Jerusalem by Railway*], a Lumière Brothers production shot by Alexandre Promio, and *The Haverstraw Tunnel*, shot by an uncredited filmmaker released by Casler and Dickson's American Mutoscope and Biograph Company.

In the 45-second long *Départ de Jérusalem en chemin de fer*, the camera has been mounted to the rear of a train, so our perspective is of the city as we leave it behind. As the film opens, our attention is immediately drawn to three white men in suits and hats walking along the railroad tracks. Behind them the tracks stretch to the horizon just at the left side of the frame. Beyond them in the distance, we can just make out a tall outcropping of buildings. On the right side of the frame are what appear to be the ruins of a building from some past time. As the camera/train departs, more men appear in the frame, more white men first, all tipping their hats or waving to the camera as it passes. As they are left in the distance a second group of men appear in frame – this time composed of Israeli men in suits and fez's. As the train nears the station the crowd grows in size and diversity, including a Franciscan monk, and a man with a long sword and a mixed group of men, women and children including Palestinian Arabs, Palestinian Jews and Europeans. Leaving the station and the crowd in the distance, their eyes still on the departing train/camera, we pass a lumber yard and then the film ends.

*The Haverstraw Tunnel* is a 35-second film that opens in mid-journey with a POV of train tracks leading through a lush countryside to the vanishing point of the horizon. In this

film, the camera has been mounted to the front of the train so we are given a vantage point on the space in front of us as we move into it. On both sides of the frame beyond the tracks we can see a low-rise fence running parallel to the tracks, with fenceposts every six or so feet, and telegraph poles every fifty feet or so. Within seconds we have raced past a wide crossing, marked by a white wooden fence. Seconds after that we realized we are racing towards a bend in the tracks just ahead. We don't see the Haverstraw Tunnel until just before we enter it. For several seconds we are in complete darkness -- then the tracks reappear -- glinting in the light of the opening ahead. The light is blinding as we emerge from the tunnel, noticing the telegraph poles again flanking both sides of the curving tracks. Just as we come out of the curve, speeding down a now straight path towards the horizon, we realize a man is crossing the tracks just ahead. For a few seconds, as we race towards the man, we wonder if he will get out of the way in time. Just as he does, with scant space or seconds to spare, the train blasts past him. In the distance, we can just make out the outline of what may be another figure standing in the middle of the tracks -- then the film ends.

The two films are in many ways polar opposites -- with trajectories through space and time aimed in opposite directions in both literal and symbolic senses. In *Départ de Jérusalem en chemin de fer*, the camera is locked down on the rear of the train, providing the viewer with a view of Jerusalem as it is left behind -- with it, a rich but volatile mix of cultures that would soon vanish from sight, as the four centuries of rule by the Ottoman Empire would disappear less than twenty years later after World War I. The Jerusalem we glimpse is a largely a city in the distance. On its outskirts we experience the city as a place of both ruins and modern expansion, in the form not only of the modern transportation enabled by the train, but the lumber yard next to it, signifying more building, future expansion and growth. The speed of our movement is slow at first then speeding up -- the natural and necessary movement of a train pulling away from the station, but at the same time signifying the break with the gravity of the train station and the family members or friends left behind, and indeed, the city of Jerusalem itself.

In *The Haverstraw Tunnel*, we are aligned with the then-cutting edge of modernity. This is a POV of not only what lies ahead, it is experienced at a high velocity. Like most actualities, there is no immediate sense of an introduction or conclusion to the film – it is, rather, an excerpt of reality that we are dropped into for a few seconds. This is a very different sensation than the Lumiere film, which opens just shortly after the train begins to leave the station. Although *The Haverstraw Tunnel* takes place entirely in the countryside, it is a space that modern technology has taken over – from the fence and telegraph poles lining the winding tracks to the train and tunnel itself – which would have required advanced engineering and explosives to literally blow through the hillside and reshape nature itself to make way for the path of the locomotive. The train never slows. Not even for humanity itself. The man we glimpse narrowly avoids being hit by the train, and the second figure in the distance – with the film ending in a cliffhanger of sorts, with viewers wondering who or what is that and will they escape? This of course provides a powerful metaphor for the specific relationship of the locomotive (and/or modernity itself) and humanity that it is bearing down on at high velocity, and the implication of the cinema in the act. Not only does the sequence create the spectacle, but it also exploits the potential for violence and death on screen.

Arguably the most futuristic aspect of this phantom ride is the fenced crossing we see just seconds into the film. On first analysis, the wideness of the fencing most likely suggests a cattle crossing. But on closer analysis of the tracks themselves you can see that the gaps between the tracks have been filled in with slats of wood, with dirt pushed up to an incline on either side of the tracks, in essence forming a sort of miniature, makeshift bridge over the tracks. Although this ‘bridge’ was almost certainly made originally to facilitate the crossing of cattle safely across the tracks, it also almost as certainly would soon be used as a crossing for automobiles. In that sense, this phantom ride film is haunted by a specter from the future: the automobile. Like the first roads, created by animals picking out the most passable path, here the pathway for the

automobile is already set. The intersection of the paths of the automobile and the locomotive is inevitable; as is their inevitable collision on a cultural level.

This film is, in fact, doubly marked by automobility. For while the film achieves its stunning spectatorial position by mounting the camera on the front of a speeding locomotive, and we see the tracks ahead as we seem to devour them, this is not a perspective associated with the locomotive (save perhaps for the engineer). It is, rather, a perspective that anticipates the unique vantage point of automobility – not only in terms of its linear perspective, with the tracks leading to a vanishing point at the horizon – but also in terms of its enframing – anticipating the windscreen of the automobile. Because we never see the vehicle that transports us in the phantom ride film, the unique perspective the spectator is given is the entire field of vision of the path ahead. The original limits of the field are determined by the frame of the camera, which is then experienced by the Traveler-Spectator as the frame of the screen. In 1897, of course, automobiles didn't have windscreens yet. That innovation would not arrive until the 20<sup>th</sup> century. In essence, the POV of the phantom ride films is clearly anticipating what will soon become the POV of automobility, albeit on *roads* that would lead to a vanishing point on the horizon instead of railroad tracks. So, while the experience of the moving panorama in the late 18<sup>th</sup> century helped train passengers comprehend their new experience of panoramic perception in the 19<sup>th</sup> century, just as surely the experience of the unique perspective of the phantom ride films helped the first drivers of the 20<sup>th</sup> century make sense of the newfound spectacle of automobility afforded by their cars. In that sense, one could argue that the ghost that haunts all of the phantom ride films is actually automobility itself.

The relationship of the frame and camera movement in the phantom ride films is very different than a simple tracking shot or dolly. In the phantom ride films, camera movement is, as the name suggests, always experienced as a *ride*. Although we may not know what kind of vehicle we are on (hence the “phantom” part), we are experiencing the film as travel; as a specific form of mobility melded to some sort of mechanical vehicle. (As opposed to say a

tracking or dolly shot in on a space, which is more aligned with vision than the bodily experience of travel.) As such, the enframing of this camera movement is experienced as the constantly changing vantage point enabled by our mechanical means of mobility. As Keller describes it:

The combination of the camera's 'subjective' view and its conventionally inaccessible position suggests disembodied consciousness, though no one seems to know if this was a factor in the naming of the *phantom ride*, or when the first was first used, and by whom. In any case, in other variations of the moving-camera film the view is similarly oneiric, so that films in which the camera is looking backwards, or is located in a wagon halfway along the train, as well as films photographed from trams and cars in which the forward-facing view was unexceptional, have also been described as phantom rides, though perhaps not at the time they were first exhibited.<sup>91</sup>

This is a far cry from the assumption made by most phenomenological film theory, where we experience a camera movement as an embodied experience within a frameless perspective, somehow disregarding the rectangular boundaries set by our vision, as Vivian Sobchack argues in her influential work on phenomenology and film, *The Address of the Eye: A Phenomenology of Film Experience*. For Sobchack: "The frame is *invisible* to the seeing that is the film. It is a limit, but like that of our own vision it is inexhaustibly mobile and free to displace itself," a "'secret' boundary of the film's act of vision" that "gently peel[s] away."<sup>92</sup> While that may be true of a tracking shot embedded in a narrative film, in a phantom ride film the abrupt cutting off of vision at the edges of the frame is an integral part of the ride. Here, with velocity and the frame working in tandem resulting in the erasure of the landscape, it is as Tom Gunning describes in one of his many crucial essays on early cinema's attractions, "an unseen energy swallows space."<sup>93</sup> The frame is crucial in this sensation of 'swallowing' or devouring of space, as is the hyper-mobility of the engine that drives the spectator's POV; the "unseen energy" is both mobility and our own consumption of this space that it enables. As Gunning describes it:

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<sup>91</sup> Patrick Keiller, "Phantom Rides: The Railway and Early Film," *The Railway and Modernity: Time, Space and the Machine Ensemble*, Ed. Matthew Beaumont and Michael Freeman, (Oxford: Peter Lang, 2007), 75.

<sup>92</sup> Vivian Sobchack, *The Address of the Eye: A Phenomenology of Film Experience* (Princeton, NJ: Princeton University Press, 1992), 131.

<sup>93</sup> Tom Gunning, "An Unseen Energy Swallows Space: The Space in Early Film and Its Relation to American Avant-Garde Film," *Film Before Griffith*, Ed. John L. Fell (Berkeley, CA: University of California Press, 1983), 355-366. The oft-cited phrase "unseen energy swallows space" originates from an 1897 *New York Mail and Express* review of the film: "The way in which the unseen energy swallows up space and flings itself into the distances is as mysterious and impressive as an allegory. [...] One holds his breath instinctively as he is swept along in the rush of the phantom cars. His attention is held almost with the vise of fate."



“The experience to be reconstituted in these films is the thrill of motion and its transformation of space. Although a large part of their appeal was clearly as a cheap form of vicarious tourism for the masses, the experience was also uniquely cinematic. The sense of penetration of space by the unseen camera gave the spectator an almost uncanny feeling.”<sup>94</sup> Petra Loffler echoes this sentiment in her recent article, “Ghosts of the City: A Spectrology of Cinematic Spaces,” pointing out that in the phantom ride films, “the camera functioned as a seeing machine exploring a permanently changing space where the instability of spatial relations and dimensions revealed the uncanniness of cinematic spacing.”<sup>95</sup> This sense of the uncanny that both scholars recognize in phantom ride films is linked to both the “penetration of space” and the “instability of spatial relations and dimensions,” and touches on both the erasure of space the spectator experiences and an as-yet unprecedented entry into space ahead that anticipates automobility. This sense of the uncanny was seized upon in many of the original reviews of *The Haverstraw Tunnel* in 1897, as in the popular New York magazine, *The Phonoscope*:

The spectator was not an outsider watching from safety the rush of the cars. He was a passenger on a phantom train that whirled him through space at nearly a mile a minute. There was no smoke, no glimpse of shuddering frame or crushing wheels. There was nothing to indicate motion save that shining vista of tracks that was eaten up irresistibly, rapidly, and the disappearing panorama of banks and fences. The train was invisible, and yet the landscape [sweeps by] remorselessly, and far away the bright day became a spot of darkness. That was the mouth of the tunnel, and toward it the spectator was hurled as if a fate was behind him. The spot of blackness closed around and the spectator being flung through that cavern with the demoniac energy behind him. The shadows, the rush of the invisible force and the uncertainty of the issues made one instinctively hold his breath as when on the edge of a crisis that might become a catastrophe... The audience that stood five deep back of the orchestra chairs half reeled as it caught itself. It had been snatched up and rapt away by a phantom train.<sup>96</sup>

Audience response to *The Haverstraw Tunnel* provides a fascinating counterpoint (and in many ways a polar opposite) to the mythical arrival of cinema’s first train on screen at the cinema’s debut at the Salon Indien of the Grand Café in France two years earlier in the

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<sup>94</sup> Tom Gunning, “An Unseen Energy Swallows Space,” 363.

<sup>95</sup> Petra Loffler, “Ghosts of the City: A Spectrology of Cinematic Spaces,” *Communication +1*, Vol. 4, #1 (September 2015), 8.

<sup>96</sup> “Life on Canvas: A Phantom Ride on an Express Train and the Other Remarkable Views Made by the Biograph,” *The Phonoscope* (Aug-Sep., 1897), 6.

Lumière's *L'Arrivée d'un train en gare de La Ciotat* [*Arrival of a Train at La Ciotat Station*]. According to the famous myth, arguably still the most famous in film history, as recounted by Tom Gunning, as the oncoming train sped towards them "spectators reared back in their seats, or screamed, or got up and ran from the auditorium (or all three in succession)."<sup>97</sup> Gunning, like many historians, remains skeptical about this actually happening that night, though accounts do exist of similar reactions at subsequent screenings of train arrival films literally around the globe.<sup>98</sup> For Gunning, writing in 1989, "this primal scene at the cinema underpins certain contemporary theorisations of spectatorship. The terrorized spectator of the Grand Café still stalks the imagination of film theorists who envision audiences submitting passively to an all-dominating apparatus, hypnotized and transfixed by its illusionist power."<sup>99</sup> Writing here about apparatus theory which dominated film theory in the 1970s and 1980s, as evinced by Christian Metz, Gunning is careful to explain that he does not want to deny this "founding myth of the cinema's spectator," but rather than frame it strictly as fear as Metz does, that we should also examine the attraction of such images. For Gunning, the attraction here is seeing a still image come to life; movement not only of the train but the film itself. As Gunning describes: "The on-rushing train did not simply produce the negative experience of fear but the particularly modern entertainment form of the thrill, embodied elsewhere in the recently appearing attractions of the amusement parks (such as the roller coaster), which combined sensations of acceleration and falling with a security guaranteed by modern industrial technology."<sup>100</sup> Key to this experience is the now-forgotten experience of the exhibition of these earliest of films – described in detail by film historian Martin Loiperdinger:

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<sup>97</sup> Tom Gunning, "An Aesthetic of Astonishment: Early Film and the (In)Credulous Spectator," 736.

<sup>98</sup> For varying accounts, see Stephen Bottomore, "The Panicking Audience?: Early Cinema and the Train Effect," *Historical Journal of Film, Radio and Television* 19:2 (1999), 177-216; Tom Gunning, "An Aesthetic of Astonishment: Early Film and the (In)Credulous Spectator," *Film Theory and Criticism*, 7<sup>th</sup> edition, Ed. Leo Braudy and Marshall Cohen (New York: Oxford University Press, 2009 [1989]), 736-750; Yuri Tsivian, *Early Cinema in Russia and its Cultural Reception*, Trans. Alan Bodger, Ed. Richard Taylor (Chicago: University of Chicago Press, 1994), and Martin Loiperdinger, "Lumière's Arrival of the Train: Cinema's Founding Myth," *The Moving Image: The Journal of the Association of Moving Image Archivists*, Vol. 4, No. 1 (Spring 2004), 89-118..

<sup>99</sup> Tom Gunning, "An Aesthetic of Astonishment," 737.

<sup>100</sup> Tom Gunning, "An Aesthetic of Astonishment: Early Film and the (In)Credulous Spectator," 743.

Before projecting a film with the Cinématographe Lumière, the framing had to be adjusted and the film locked into place after it had been inserted, during which one saw a still image, i.e., one projected frame, similar to a slide show. As soon as the framing was correct, the projectionist started cranking, setting the image on screen in motion. Many commentators described this transition from a still to a continuously moving image as a surprising, even thrilling, perceptual experience.<sup>101</sup>

Loiperdinger goes on to describes the scene as “cinema’s founding myth,” whether or not it actually happened.

The cinema’s first audiences are interpreted as being unable to distinguish between film image and reality. *Arrival of the Train* is not simply used as an icon of cinema’s birth, rather this one-minute film by Louis Lumière stands as a striking example of the manipulative power allegedly inherent in cinema since its beginnings. It serves to illustrate cinema’s inherent suggestive forces, elevated to a basic principle. While the fear and panic of the audience facing Lumière’s locomotive is retold in the form of an anecdote, its status reaches much higher: reiterated over and over again, it figures as *the* founding myth of the medium, testifying to the power of film over its spectators.<sup>102</sup>

Visually, the two films are far more than an inverted mirror reflection of each other, although that’s what they may appear to be at first glance. In the Lumière film, the train is rushing towards a stationary camera set up at the train station. The imminent endpoint that audiences feared was one of impact – the train barreling into the audience and crashing to a stop. With *The Haverstraw Tunnel*, the train is still the vehicle of mobility, but now it is invisible, and it is the spectator that is speeding through a still landscape – with no endpoint in sight. This is a vision of pure unstoppable mobility; especially in theaters like Poli’s Wonderland Theatre in New Haven, Connecticut, where the film was shown in a loop as a “continuous performance” for audiences who crowded into the theater to see this unparalleled cinematic marvel.<sup>103</sup> Film historian Charles Musser points out that this was a commonplace occurrence during the earliest period of cinema, especially before 1900. Musser resists using Gunning’s phrase “cinema of attractions” to describe this though, instead offering up the opposite notion of

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<sup>101</sup> Martin Loiperdinger, “Arrival of the Train’: Cinema’s Founding Myth,” *The Moving Image: The Journal of the Association of Moving Image Archivists*, Vol. 4, No. 1 (Spring 2004), 97. One of the most conspicuous of these commentators, Tom Gunning points out was no less than George Méliès; see Tom Gunning, “An Aesthetic of Astonishment, 740-741.

<sup>102</sup> Martin Loiperdinger, “Arrival of the Train’: Cinema’s Founding Myth,” 92.

<sup>103</sup> From an advertisement in New Haven, Connecticut’s Morning Journal-Courier (December 20, 1987).

a “cinema of contemplation” in the case of a film running in a continuous loop for minutes at a time: “This did more than denarrativize individual films: such sustained presentations also encouraged spectators to contemplate and explore the image. As this evidence suggests, one way that early audiences were meant to look at films was not unrelated to the way they were meant to look at paintings.”<sup>104</sup> Granted, the examples that Musser cites – *American Falls From Above*, *American Side* (Thomas Edison, 1896) and *Waterfall in the Catskills* (Thomas Edison, 1897) – suggest a more relaxing form of contemplation (the scenic spectacle of a waterfall) than in the case of a film like *The Haverstraw Tunnel*. But in either case running these films in a continuous loop would offer a unique space of contemplation for late 19<sup>th</sup> century filmgoers, whether reflecting on the continual cascade of a waterfall or the “unseen energy swallowing space” of a phantom ride. As Musser point out in the case of *The Wave* (Birt Acres, 1896), where the film featured a violent sea crashing up on shore, seen in a loop, “the visceral reaction must have abated. The spectator would gain a sense of mastery of this new medium, settle back into his or her seat and enter a more detached and contemplative state.”<sup>105</sup>

Imagine if *The Haverstraw Tunnel* would have been embraced as cinema’s founding myth rather than the threat of the train crashing into the Lumiere theatre. With the phantom ride, the vantage point offered to the viewer is not simply one of passive traveler, watching the world slide by outside the glass, but rather the POV of the engineer, the pilot (and, anticipating automobility, eventually the person in the driver’s seat and the passenger next to him/her), and the experience of continuous travel into an infinitely extending landscape. As Gunning sums up:

With their front-on viewpoint, the phantom rides provide a unique realization of the fantasy of penetrating a landscape, of chasing the horizon into the depth of an ever-unfolding image. The displacement from the lateral view provided by the train (and the moving panoramas) to a head-on plunge into the centre of the image fundamentally transforms the distance Schivelbusch described as inherent in panoramic perception.<sup>106</sup>

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<sup>104</sup> Charles Musser, “A Cinema of Contemplation, A Cinema of Discernment,” *The Cinema of Attractions Reloaded*, Ed. Wanda Strauven (Amsterdam: Amsterdam University Press, 2006), 162.

<sup>105</sup> Charles Musser, “A Cinema of Contemplation, A Cinema of Discernment,” 167.

<sup>106</sup> Tom Gunning, “Landscape and the Fantasy of Moving Pictures: Early Cinema’s Phantom Rides,” 57.

Interestingly, for Gunning, the potential collision is still in play as both part of the risk and allure of being a spectator-passenger. As he goes on explain in his 2010 article, “Landscape and the Fantasy of Moving Pictures: Early Cinema’s Phantom Rides,”

The head-on confrontation between the viewer’s vantage point and the direction of movement into space evoke the possibility of shock and collision, in contrast to the lateral view of the traditional train rider that created the sense of separation essential to panoramic perception. Nonetheless, a fundamental fissure between viewer and spectacle remains, dependent less on visual viewpoint, yet physically more absolute. As much as the expectation, even the sensation, of collision may be evoked by such film, no collision is ever possible. [...] No physical shock is possible, no meeting between our bodies and the space on screen can occur, however much we may seem to penetrate into it.<sup>107</sup>

So, for Gunning, the always-anticipated collision or crash that can never happen is also an important part of the phantom-like status of these films. Like the rollercoaster, this is a carefully controlled experience of moving through space, where the safety of the Traveler-Spectator is an integral part of the ride.

However, this notion is challenged in a film that comes nine years later, at the end of the era of the phantom ride’s popularity, which also clearly illustrates how quickly the genre disconnected from its strict identification with the experience of the train, shifting to the perspective of automobility, first promised by *The Haverstram Tunnel*. The 1906 film, *A Trip Down Market Street*, photographed by Harry J. Miles and co-produced with his brothers, Herbert, Earle and Joe, and made near the end of the popular phantom ride genre cycle, provides striking proof of the transformation in transportation occurring already in San Francisco. The film begins at the location of the Miles Brothers’ film studio on 1139 Market Street, between 8<sup>th</sup> and 9<sup>th</sup> streets and ends where the street ends at the Ferry Building. The precise location of the film on the timeline introduces the Traveler-Spectator to another haunting aspect of this particular phantom ride – as the film was shot just four days before the 1906 San Francisco Earthquake on April 18, which then resulted in the subsequent San Francisco Fire, causing the destruction of 28,000 buildings comprising 80% of the city, more

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<sup>107</sup> Tom Gunning, “Landscape and the Fantasy of Moving Pictures: Early Cinema’s Phantom Rides,” 58.

than 3,000 deaths, and leaving over a quarter million inhabitants homeless – including, very likely, many of the men, women and children we see on our phantom ride in this film.<sup>108</sup>

Shot from the front of a cable car, the twelve-minute phantom ride takes us down the then-thriving Market Street, giving us a view of both the past and the future of the city and of this country – as we move through a street crowded with automobiles, horse-drawn carts and carriages, streetcars (both electric and horse-drawn), and pedestrians of all ages darting in and out of traffic, very literally taking their lives into their own hands to cross the street. While license plates had just been mandated by law in 1905, there are no laws yet in place governing traffic, and no police officers to monitor the mayhem.

The film opens on a chaotic view down Market Street. The tracks laid in the street mark the middle of the wide street and the frame itself, leading all the way to the horizon, where we can just make out the pointed shape of the Ferry building where the street ends. The horizon is situated two-thirds of the way up on the screen, so the street, buildings and sidewalk activity fairly fill the frame. We are greeted by horse drawn carts coming towards us and trotting ahead of us; strikingly, just a few seconds into the film, one of the horse drawn carts just ahead alters its trajectory from the side of the street to near the center, riding directly on the rails in front of us. Immediately the viewer's relationship to the tracks change; unlike many of the early phantom ride films, this is not a POV strictly aligned with the locomotive, but as we will soon see, with the vantage points of all vehicles that now crowd onto a road where the submerged tracks are only one element. Just fifteen seconds into the film an automobile zips by on the right hand side of the frame; two seconds later another automobile darts right in front of us, immediately transforming the timeline of the film from the 19<sup>th</sup> century to the 20<sup>th</sup>. More cars appear after that, almost in a swarm, shooting past our phantom ride, darting and crisscrossing just in front of us. We soon see that Market Street is actually dominated by the new automobiles,

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<sup>108</sup> The Miles Brothers studio was destroyed in the fires that consumed much of the city after the earthquake. The survival of the negative is solely due to the fact it was taken by train to the Miles Brothers office in New York the day before the fire. For many years the film was a powerful curio, uncredited and unsynced to the timeline, until film historians in 2010 identified the date of the film based on a license plate seen in the film, registered in February 1906 by the Reliance Auto Company. Only afterwards were historians then able to link the film to the Miles Brothers legacy.

as they clearly outnumber every other form of vehicle on the crowded street. As we make our way down Market Street, various vehicles appear in front of us, also seeming to run along the embedded tracks, barely visible in the street: horse-drawn carts, automobiles, even trucks. The resulting impression on the Traveler-Spectator is that s/he might be traveling on any one of these vehicles. In this case the “phantom” part of the phantom ride shifts; we are still aligned with the means of mechanized travel, but its specific shape seems malleable. Although we are following the tracks leading to the horizon, so is every other vehicle on the road. We are no longer necessarily fused to a locomotive, or even the streetcar that the film was shot from; we are part of the modern urban ensemble of traffic now; traffic dominated by the automobile. The automobiles we see are of course very different than the ones we are used to now. They are all convertibles, with their soft-tops folded down so the passengers are traveling in the open air and sun. Further contributing to their openness is the fact that none of these cars have windshields, as this is before they were invented.<sup>109</sup>

Clocking in at over twelve minutes, *A Trip Down Market Street* is by far the longest of all the phantom ride films. As such, the experience of watching the film is dramatically different from all that preceded it. What begins as a powerful example of a “cinema of attractions” soon transforms into something closer to Charles Musser’s “cinema of contemplation,” because of its then-unprecedented duration. While the cars whiz by, the horse drawn carts trot past, and the city’s on-foot occupants dart in and out of the seemingly constant stream of multi-vehicular traffic, the street of course maintains its hold over the bottom two-thirds of the screen, ever so slowly rolling past underfoot, remaining a steady and constant gray slate. The experience of this film is a vision of the future – the normalcy of traffic – dominated by automobiles. The seemingly endless flow of buildings and people moving up and down sidewalks and back and forth across the street is an image of modernity just at its origins. It is also an image that remains largely unchanged now, almost 120 years later. As a Traveler-Spectator, processing this

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<sup>109</sup> The conception of automobile interior as cockpit/nest comes decades later, and will be discussed in depth in the next chapter.

fact is an inevitable aspect of our process of contemplation, and reflection. What was at the time the film was made, no doubt, a futuristic vision of both San Francisco and automobility, looking backwards, provides a visceral proof of just how long automobility has been the norm in an urban environment. At the same time, it also reminds us just how long the perspective of this urban environment has been aligned with automobility. Although the windshield (or “windscreen” as the British term it) has yet to be invented at this point, the perspective we are presented with anticipates that vantage point, and indeed, modern viewers looking back at the film will no doubt see the film in that fashion. Already in 1906 we see the clear hierarchy of vehicles on the road, with the automobile, barely a decade into its existence, already ruling the road – with everything and everyone else either left behind or running to get out of its way. The individualized traveler behind the wheel (or its handful of occupants) are elevated above the pedestrian, moving at a faster rate than anyone else, in an individualized method of movement that is no longer communal, no longer bound to timetables.

For the Traveler-Spectator, the experience of duration is partly responsible for the sensation of automobility, as it recreates in real time the perspective of a car moving down Market Street with no edits and no additional camera movements other than the steady forward momentum of our phantom ride. As Traveler-Spectators our eyes are free to roam the frame, searching the streets for faces we know, shop windows that may interest us, or inspecting the striking turn-of-the-century architecture of the buildings lining the street that stretch into the sky, beyond the confines of the frame. Eventually, our contemplation of the street scene becomes focused on the building at the far end of Market Street. Although we can barely make out its tower at the beginning of the film, appearing as just a tiny spire in the fog in the distance, it becomes quite striking several minutes into the film, as it is an isolated tower jutting up into the growing white space of sky that stretches between the buildings flanking either side of the frame. Several more minutes in, it eventually becomes clear that this building is the endpoint of the road, and the destination we have been traveling towards all along. The Ferry Building, built in



1896 by the State Harbor Commissioners, marked the boundary between city and sea, serving not only as the destination for our phantom ride, but indeed, the destination of commuters who rode the ferry fleets of the Southern Pacific and Key System across the San Francisco Bay, and the transcontinental rail lines of the Southern Pacific, Sante Fe, and Western Pacific. When we arrive at our destination, several people on the street in front of the Ferry Building step out of the way, as if to let the phantom ride pass. Instead, it comes to stop for almost ten seconds, our attention trained on the plaque of engraved stone on the building that reads: “ERECTED A.D. 1896 BY THE BOARD OF STATE HARBOR COMMISSIONERS.” Suddenly, our phantom ride does something it’s never done before – it slowly turns around a full one-hundred-and-eighty degrees – transforming what was originally the destination of our journey, into an all new point of origin. With the dramatic camera move completed, we are suddenly greeted by a group of young boys, grinning, jumping into the air and cheering right in front of us – then the film cuts to black and it is over. The close of the film is both dramatic and stirring, more so for anyone who knows the sad fate of the city just days later – when the Great Earthquake of 1906 would destroy 80% of San Francisco. The jubilation of the boys seems a celebration not only of the virtuoso camera move, but of the presence of the camera itself, a not uncommon greeting in the cinema of attractions. The inhabitants of the film often stare back at us through time, as captivated by the moving presence of the camera (which likely was itself quite a spectacle, strapped onto the front of a cable car) as we are by them. To the Traveler-Spectator it also seems likely a celebration of the fact that the phantom ride will resume once again, that this perspective of automobility accessed through the windscreen is only just beginning.

#### **ACTUALITIES OF AUTOMOBILITY: EARLY CINEMATIC TALES OF THE MOTOR AGE**

For most Americans alive at the birth of the 20<sup>th</sup> century, their introduction to automobility and indeed their first glimpses of automobiles were seen in the cinema. In *Automobile Parade* (Thomas Edison, 1900) we are given a front row seat on New York City’s

very first annual parade of automobiles on November 4, 1899. Clocking in at two minutes, the one-shot film provided many first-generation cinema-goers their first glimpse of automobility at work and play on the streets of turn-of-the-century Manhattan. Over the course of the film we see more than ten different makes and models of first-generation automobiles, a mix of electric and steam-driven vehicles, that make a wide turn as they pass the camera. About halfway through the film, as one of the vehicles makes its turn it reveals behind it a four-wheel carriage pulled by a white horse, containing two men laughing uproariously. The visual joke of the solitary horsedrawn carriage in the parade is quickly followed up by a second, larger horse drawn taxi-carriage, seemingly looking for a fare, and intruding on the parade. The taxi-carriage is cut off by several passing vehicles, and forced to come to a halt, with both driver and horse watching the wondrous and weird horseless carriages loop around them, one after another. Stopped in its place, and forced to watch the seemingly endless parade of automobiles, the horsedrawn cab can go no further, still stuck in its spot when the film ends.

Although we are never privy to the point of view of these earliest enthusiasts of automobility in this early film, we are instead presented with the spectacle of the permutations of the car body in its already wide variety of makes and models available, as well as the spectacle of driving itself – the way the driver and passengers were seemingly fused to the apparatus, at this point more likely steering by paddle than by wheel. The scale of the spectacle would have been striking too, with the parade (and the film) providing one of the earliest glimpses of the challenges of traffic, even if it is within the controlled confines of an organized parade. The idea of closing off a street in Manhattan for the purpose of showcasing the First Annual Automobile Parade is revealing of the still relative rarity of automobiles on the streets of New York, and the wonder and awe that those who attended the parade – or saw the film – must have felt.

In 1903 we get a brief glimpse of the POV of automobility, possibly the first in film history, in *The Runaway Match*, directed by Alfred Collins for British Gaumont. The film, which is described by film historian Julian Smith as being “probably the first narrative film to depict

an automobile,” and containing the cinema’s first automobile chase, according to the Library of Congress, focuses its entire four-minute running time on issues of automobility.<sup>110</sup> The simple plot is about a young couple who elope in a hired car (driven by the taxi driver), with the father of the bride soon giving chase in his own car (driven by his chauffeur). During the chase, the father’s car breaks down with a dramatic puff of smoke from the engine, arriving too late to stop the marriage. But in the last of the nine shots that comprise the film, the father invites the couple into his car, and the entire wedding party piles into the vehicle and they drive off celebrating. In this brief film we already see some of the essential connections of automobility and the cinema established. As in so many films that would soon follow, automobility is linked to rebellion from the social norms, and taking an anti-authoritarian stance. The automobile provides both a safe space for the young couple, and the means to get away from the girl’s father and the old idea that it was necessary to get his approval before getting married. In 1903 the automobile was still considered exclusively a plaything of the rich, and not yet associated with the middle or lower classes (that would have to wait until Henry Ford introduced the Model T a decade later). So while the rich father giving chase in his chauffeur-driven automobile would have been considered the norm of automobility in that time, the young man’s use of a hired car to escape the traditional patriarchal power structure of society provides a provocative look ahead at the near-future of automobility. As Julian Smith points out in one of the first (and only) scholarly articles to address the film: “the narrative conventions that soon sprang up around movie automobiles helped intensify popular interest in the automobile itself.”<sup>111</sup>

The famous car chase starts just a minute into the film, and lasts barely thirty seconds. But visually, it is a marvel. As soon as the father climbs into his automobile there is a cut to a shot looking down the road as he speeds away. Then, just a few seconds later, there is another cut to a moving shot, framing the father and his chauffeur in their car giving chase, clearly being

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<sup>110</sup> Julian Smith, “A Runaway Match: The Automobile in American Film, 1900-1920,” *The Automobile and American Culture*, Ed. David L. Lewis and Lawrence Goldstein (Ann Arbor, MI: University of Michigan Press, 1983), 181.

<sup>111</sup> Julian Smith, “A Runaway Match: The Automobile in the American Film,” 181.

photographed from a moving car just a few feet ahead of them. But it is only after the father's car breaks down, being quickly left behind in the road, that we get a shot from the reverse angle of the couple looking out the back of their own automobile as it speeds away, revealing that we have been seeing from their POV. This following shot is also taken from another moving car, managing to stay quite close (and in focus) on the young rebellious couple celebrating with an embrace and a wave to the father as they leave him behind in the dust. The spectacular POVs seen here thanks to a moving camera provide us with an explicit alignment of automobility and the cinema. Not only is the camera movement made possible by mounting the camera on a car, the characters being photographed are also moving in their own automobiles at the same time. Both shots here are giving viewers the POV normally associated with phantom ride films – only this time the ride is comparatively brief, and framed both by narrative and the very specific subjective point of view of the escaping couple.<sup>112</sup>

Outside of the phantom ride films, this privileged POV was rarely seen in this era – in either actualities or narrative films. As Barry Salt points out in his definitive early work on film style, “the use of tracking shots to show a view of more or less static scene from the front of a moving vehicle was not generally taken over from the ‘phantom rides’ to fictional films in this period.”<sup>113</sup> According to Salt, it isn't until 1912 that there is any sort of tradition established for the use of tracking shots in the cinema. Before that the short list of films using moving shots were all shot from automobiles, and most commonly associated with both the perspective and sensation of automobility (most commonly the elopement chase films, according to Salt<sup>114</sup>).

In *Boarding School Girls* (Thomas Edison, 1905), we get another rare moving POV captured from the back of an automobile, again appropriating the phantom ride; this time, of an

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<sup>112</sup> This was not the first time that a phantom ride had been fused with a narrative film. Most critics give that credit to *A Kiss in the Tunnel* (G.A. Smith, 1899). According to Barry Salt, “The Warwick Trading Company catalogue instructs that it should be joined into a film of a ‘phantom ride’ between the points at which the train enters and leaves a tunnel, an event which many ‘phantom rides’ included, and this is indeed the case with the surviving copy of this film.” (Barry Salt, *Film Style and Technology: History and Analysis*, Third Edition (London: Starword, 2009 [1983]), 41.

<sup>113</sup> Barry Salt, *Film Style and Technology*, 50.

<sup>114</sup> Barry Salt, *Film Style and Technology*, 89.

open truck transporting a large group of boarding school girls, their older female chaperone and male driver, to Coney Island for a day of fun. This dynamic film opens with another relative rarity by way of camera movements in this era – a pan that follows the group as they exit their boarding school and load into the large car/truck parked in the street outside. The moving shot that follows – another rare appropriation of the phantom ride – lasts a lengthy thirty seconds, capturing the group of girls cheering and waving – assumedly at the camera (and the film’s Traveler-Spectators) as the vehicle makes its winding way up a tree-lined street, passing only one man on foot, and another in a horse drawn cart going the opposite direction. In his early essay on camera movement, Jon Gartenberg points out that the fact the shot “is held for an extensive period of time, indicat[es] the great novelty and vivid sense of movement inherent in the image” for early audiences.<sup>115</sup> While this is the only traveling shot in the film, the camera is moving via pans in nearly half of the shots in the eleven-minute film. Additionally, there is movement within the *mise-en-scène* in almost every shot in the film, as the true star here is Coney Island. Seen in this context, the truck trip to the amusement park is presented to the Traveler-Spectator as the first in a series of novelty rides – the latter all experienced at Coney Island, and all offering variations on mobility as novelty: a linked series of carriages on tracks, an early incarnation of a zip line, a motorized spinning top, moving stairs, the famous giant slides (seen for decades to follow in virtually every film shot at Coney Island), a giant wooden rolling wheel, the bicycle carousel where each rider helped supply the power, real camel rides and the fake horses on rails. The novelty of the traveling shot is fused with the novelty of automobility as the method of transportation in 1905 of this group of girls, both of which are aligned here with the pinnacle of early 20<sup>th</sup> century novelty and mobility – Coney Island – and of course the cinema itself.

In 1908 we see another rare traveling shot in *John Gilpin’s Ride* (Lewin Fitzhamon, 1908), a Cecil Hepworth production in the U.K.. This time it is the re-enactment of the famous 18<sup>th</sup>

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<sup>115</sup> Jon Gartenberg, “Camera Movement in Edison and Biograph Films, 1900-1906,” *Cinema Journal*, Vol. 19, No. 2 (Spring 1980), 8.

century horse ride that is captured by a camera mounted to a car following the horse and rider (in appropriate costume). The well-known comic ballad of 1782 tells the story of a rider whose horse goes out of control, carrying its rider miles out of town on his wedding day. Thematically, the narrative of the film fits in with period attitude about automobile as being unreliable and even dangerous for going out of control. But again, it is the sequence involving the moving camera that is truly breathtaking. Seen now, one is struck by the strange disjuncture of timelines in this scene – a period costume-dramedy that captures a man on horseback via a car-mounted camera in a period when automobility was so rare – almost as rare as a sequence like this!

Probably the most famous fusion of automobility and the cinema in this period, primarily because of the talent involved, is a sequence in D.W. Griffith's 1909 short, *The Drive for a Life*. For this early film in Griffith's career his cameraman Billy Bitzer would mount his camera to the rear of a car to film a sequence of another kind of chase. This time the pursuer is racing both the clock and another car, as he speeds to warn his fiancé of a plot to poison her via a box of candy. This now lost film arguably offers the roots of the modern car chase, taking the already established elements of the elopement chase film and adding a layer of life-and-death suspense. Here, in a question of survival linked to time, only automobility offers the sort of speed necessary to overcome a narrative trajectory of almost certain death.

The traveling shots in each of these early narrative films appear as extended sequences, that vary as greatly in length as in form. It is precisely because of their conspicuous duration, that these sequences, in essence, function as phantom rides, and examples of the cinema of attractions that Tom Gunning has described – that are embedded within these narrative films. While *A Kiss in the Tunnel* was an early narrative film designed to be spliced between two phantom rides for exhibition, the above group of films reverse the hierarchy, instead embedding a phantom ride within the narratives. Of course in the case of each of the films described above, the phantom ride is associated explicitly with automobility, likely offering the films' original audiences their first experience of the perspective of automobility.

Addressing the unique temporality of the attraction, Gunning points out that “the attraction seems limited to a sudden burst of presence,” as opposed to a development “that links the past with a present in such a way as to define a specific anticipation of the future (as an unfolding narrative does).”<sup>116</sup> This is an excellent way to describe the driving sequences in the above films where in each the narrative of the film seems to put on pause, suspended, while the Traveler-Spectator is allowed to enjoy an extended taste of early automobility on screen. Although in each film the chase or trip is a crucial step in the narrative trajectory of these films, with the exception of the D.W. Griffith film, they are not played for suspense. The phantom ride is not cut up with POV shots to emphasize the chase, or sights seen while on the road. The spectacle, or attraction in these sequences, is the wondrous moving image of the automobile, still such a novelty in that period, captured in one lengthy, continuous shot.

As Gunning explains, attractions both “foreground the role of the spectator” and “directly addresses the spectator, acknowledging the viewer’s presence and seeking to satisfy a curiosity.”<sup>117</sup> In the case of these early appearances of automobility on film captured by moving automobiles, the viewers’ curiosity is satisfied on two levels – both via narratives that made automobiles and stories revolving around them accessible to an audience who, for the most part, could not yet afford to buy one themselves; and secondly, to allow Traveler-Spectators experience the sensations of automobility via the use of the traveling shots on screen. Although *The Runaway Match* is the only early film that offers its viewers a revealing reverse shot, explicitly aligning the perspective they enjoyed with the moving car of the escaping young couple, all of the phantom rides in these films offer the visceral experience of being in a car as they watch characters in the film riding in cars. It isn’t until the 1910s that the traveling shot becomes a standard element of film language. As Barry Salt points out: “But it is from 1912 that

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<sup>116</sup> Tom Gunning, “Now You See It, Now You Don’t: The Temporality of the Cinema of Attractions,” *The Velvet Light Trap*, Vol. 32 (Fall 1993), 45.

<sup>117</sup> Tom Gunning, “Now You See It, Now You Don’t: The Temporality of the Cinema of Attractions,” 43-44.

the use of the parallel tracking shot really increases in films from all the major film producing countries, usually following action on cars or trains.”<sup>118</sup>

## **MOVING/MOVIE MAGIC: ALIGNMENT OF AUTOMOBILITY AND EARLY EFFECTS**

Far more common than a view from an automobile in early cinema, was the view of automobility as something wondrous and magical, thanks to the alignment of automobility and special effects in a variety of popular trick films at the turn of the century. Very likely the earliest fusion of special effects and automobility come in two films directed by Cecil Hepworth and released in England in 1900 – the oft-discussed *How It Feels to be Run Over* and *Explosion of a Motor Car*. Tellingly, these early trick films of automobility feature some of the first car crashes on screen, the pair seemingly fused with the cinema from almost the birth of both technologies. James Leo Cahill goes one step further in his 2008 article, “How It Feels to be Run Over: Early Film Accidents”, arguing that these films provide an allegory for the unstable and accident-prone new medium of the cinema, where projectors and cameras were constantly breaking down or even bursting into flames, arguing that these early automobiles are “displaced technological surrogates for projectors.”<sup>119</sup> (This, echoing Rick Altman’s earlier sentiment, pointing out: “Like contemporary automobiles, early projectors could be kept running only by a trained mechanic.”<sup>120</sup>)

Of course this sensation of instability remains one of the fundamental elements of the cinema because of its uneasy balance of the immobility of the film’s spectator and the perception of movement on screen.<sup>121</sup> As viewing machines, both the cinema and automobility offer constantly changing views via each technology’s respective screens, resulting in both spatial and temporal dislocation. Although you may know when the journey begins, you never know when it

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<sup>118</sup> Barry Salt, *Film Style and Technology*, 89.

<sup>119</sup> James Leo Cahill, “How It Feels to be Run Over: Early Film Accidents,” *Discourse*, Vol. 30, No. 3 (Fall 2008), 295.

<sup>120</sup> Rick Altman, *Silent Film Sound* (New York: Columbia University Press, 2004), 165.

<sup>121</sup> Lynne Kirby makes a similar point in regard to the relationship of the train and the cinema. See Lynn Kirby, *The Railway Journey*, 3.



will suddenly stop. What Lynn Kirby points out with regard to the relationship of the train's passenger and the cinema's spectator is equally applicable here: "What mattered most in early train films was the shock effect in and of itself, the thrill of instability, which addressed a new subject cut loose from its moorings in traditional culture and thus potentially open to anything."<sup>122</sup> With both the early train films and the early trick films focused on the automobile, the crash is a central figure, and a common occurrence.

Hepworth's infamous *How It Feels to be Run Over* is a 50-foot single-shot film photographed by a stationary camera set up in the middle of a dusty tree-lined road in the country. The film opens with a horse drawn buggy approaching the camera; driven by a man in a suit and hat, it quickly passes, leaving only a cloud of dust behind. As the dust clears, we see a second vehicle approaching; this time it is an automobile carrying three well-dressed passengers (including Hepworth himself at the wheel of his own car), followed closely by a man on a bicycle. As the vehicle bears down on us, heading straight towards the camera, the passengers wave their arms frantically, warning us to move out of the way but refusing to alter their course. While the bicycle glides easily past, the car rushes straight at us, and within seconds the front of the car fills the frame until it turns to black. A strange intertitle then flashes before our eyes, one word at a time, in white letters scratched directly into the film's emulsion: "?? !!! ! Oh! Mother will be pleased". In what is one of the clearest examples of the cinema of attractions, the narrative of the film ends abruptly as the car collides with the camera (and our POV aligned with it). The collision of the two technologies results in the scarification of the film's surface itself with the closing intertitle, which most film historians claim to be the cinema's *first* intertitle. (Chalk up another first for automobility there.) A number of excellent essays have been written in cinema studies that address this special film, offering a multiplicity of views on this enigmatic debut of the written word in the cinema. For Tom Gunning, it is this moment that transforms the film into an "astounding" example of the cinema of attractions, where "the spectator is directly

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<sup>122</sup> Lynn Kirby, *Parallel Tracks: The Railroad and Silent Cinema*, 8.

addressed, even confronted.”<sup>123</sup> Noel Burch refers to the sequence as a “series of battering rams beating on the ‘invisible barrier’ that maintains the spectator in a state of externality.”<sup>124</sup> In her book-length study of the car crash, Karen Beckman insists that the enigmatic text that closes the film “marks a place where the promise of a direct visual experience of the accident ultimately seems to destroy the possibility of cinematic vision, but in doing so gives way to the incorporation of another medium: writing.”<sup>125</sup> In an article devoted almost entirely to the use of the text in the film, Gregory Robinson points out, “the implied collision of machine and camera becomes a figurative collision of words and viewer, and the violent conclusion is inscribed, quite literally, into the film itself.”<sup>126</sup> For Leo Cahill, the film “takes on the seemingly impossible project of delivering information that strains the epistemological limits of visual media, consciousness, and life itself: the *sensations* of being flattened by a speeding automobile, a fully present *experience* of trauma, of being annihilated.”<sup>127</sup>

Taken as a jarring whole, I would argue that the film offers another compelling alternative to the more famous Lumiere film, *L’arrivée d’un train à La Ciotat*, as a primal model for cinematic spectatorship. This film, which marks the arrival of automobility in the cinema, foretells of the coming collision of these two vision machines, neither of which seem able (or willing) to alter their courses and avoid the collision. While Robinson argues that “the crash is a playfully nihilistic collision between artist and apparatus, between filmmaker and film, as if the two would obliterate one another at the moment of impact.”<sup>128</sup> I would argue that this collision results in a hybridization of the two vision machines, the automobile and the cinema, giving birth to the intertitle in the process, a necessary element in the establishment of film as a

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<sup>123</sup> Tom Gunning, “‘Primitive’ Cinema: A Frame-up? Or the Trick’s on Us,” *Cinema Journal* Vol. 28, No. 2 (Winter, 1989), 9.

<sup>124</sup> Noël Burch, *Life to Those Shadows*, Ed. and Trans. Ben Brewster (Berkeley, CA, 1990), 202.

<sup>125</sup> Karen Beckman, *Crash: Cinema and the Politics of Speed and Stasis* (Durham, NC: Duke University Press, 2010), 30.

<sup>126</sup> Gregory Robinson, “Oh! Mother Will Be Pleased: Cinema Writes Back in Hepworth’s ‘How It Feels to Be Run Over,’” *Literature/Film Quarterly* Vol. 39, No. 3 (2011), 226.

<sup>127</sup> Leo Cahill, “How It Feels to Be Run Over: Early Film Accidents,” 300.

<sup>128</sup> Gregory Robinson, “Oh! Mother Will Be Pleased: Cinema Writes Back in Hepworth’s ‘How It Feels to Be Run Over,’” 218.

narrative art form. The camera is the only immobile component in this (primal) scene of ‘chicken’ here. Where the automobile refuses to flinch, move or swerve, the camera at this point is still seemingly unable to move. Here, aligned with the unmovable elements of nature and the road carved into it, the camera does its duty in 1900: it reports, records, holds its ground in the name of capturing the truth of the scene, like a dutiful actuality should. Only it isn’t enough. The result is a harsh lesson learned from our head on collision with automobility: to preserve the narrative, the characters, the camera, even the precious surface of the film itself, the camera would need to move too. As an end result, automobility provides the model for the cinema’s own mobility.

In the countless automobile accidents and crashes that follow in the cinema, they are almost always caught on screen. So while that first film showed spectators how it *felt* to be run over – just as the film’s title promised – the crash sequences that followed revealed to the Traveler-Spectator, safely enrapt in the theater, what it *looked* like. In Hepworth’s follow up film, *Explosion of a Motor Car*, released later in 1900, we once again see Hepworth behind the wheel of his own car, this time coming around the corner of a city street. A policeman walking in the opposite direction crosses the street, easily avoiding collision with the slow oncoming car. But as the car approaches the camera, about a third of the way into the 90-second film, it suddenly explodes; or more accurately, seems to go up in smoke, leaving behind only a small pile of parts in the middle of the street: the steering wheel, one wheel with its tire still on, something that looks like a bucket, and some other pieces of metal. The police officer reenters the scene, producing a telescope that he aims in the air over the automobile, but quickly darts off down the street to avoid a series of body parts raining down from the sky.

We see variations of this violent disincorporation of the human body by automobile appear in a number of early one-shot films that follow. In *Policeman and Automobile* (Percy Stow, 1902), another Hepworth production, a policeman steps out into the middle of a country road with his arm extended in an effort to slow or stop the automobile speeding towards him.

Instead, the vehicle runs over him, scattering his limbs in the road. Slowly, the body parts start moving towards each other, eventually reassembling and eventually helped off the road by another man. A heavy-set policeman takes his place, again stepping into the middle of the road to slow another fast-approaching vehicle, but this one puts his back to the car, then leans over. The car bounces off of him as the film switches into reverse-motion and reverses onto the sidewalk where it hits a fence and comes to a stop. In *An Interesting Story* (James Williamson, 1905), a man engrossed in a book walking down the road is flattened (literally) by an oncoming steamroller. Two passers-by reinflate his body with a tire pump, restoring him to life. In the Lumiere film, *Accident d'automobile* (1905), a tramp crossing the road is run over by an automobile, cutting him to pieces. The fretting driver of the car and man who was hanging posters nearby piece the man back together, stand him up, and send him off down the street.

In each of these films special effects intervene at the precise moment of collision – whether it is a trick of handcranking, an almost invisible splice, the replacement of the human body with dummy parts, or even the stop-motion reanimation of those parts back into a human body. In other words, we are still not seeing the actual crash on screen. In that sense, these films are all following the lead of *How It Feels to Be Run Over*. The effects in each film allow for the cinematic experience of an event that in real life could not be safely experienced; indeed, the experience of a crash – especially in that era before seat belts – would likely result in unconsciousness or death, thereby eliding the actual physical/psychical/sensual experience of impact(s). But of course to most in the audience in this era, the experience of automobility itself was just as fantastical and had yet to be experienced by most movie goers. Likewise, the experience of automobility in these early trick films was just as likely to be fantastical, otherworldly and represented on screen via the movie magic of special effects.

In *Le voyage a travers l'impossible*, the 1904 George Méliès film inspired by the Jules Verne play, *Journey Through the Impossible*, we see one of the most stunning early examples of the dream of automobility. Like the more famous *A Trip to the Moon*, made two years earlier,

the film offers a satirical space journey, though this time to the sun – using “all known means of locomotion—railroads, automobiles, dirigible balloons, submarine boats, etc.” – as described in the 1905 Méliès exhibition catalog.<sup>129</sup> In the film, the automobile we see is actually a large touring car, and provides transportation in the second leg of the trip for the group of explorers. Shortly into the journey, the car crashes into a building and then drives through a dining room where a large group are knocked from their stools and jump up yelling angrily at the travelers for interrupting their meal. They emerge from the building and enter a mountainous landscape which moves past as a panorama behind the now miniature version of the vehicle as it climbs up and down the hilly terrain until it reaches the highest peak in the sequence, then suddenly tumbles over the edge. There is a cut to a wide, static shot of the back side of the mountain, as we see a now larger version of the touring car topple from the top of frame and crash on the rocks below, destroying the vehicle, and sending its occupants flying. The group of battered explorers are rescued by a group of mountain-climbers, and in the next scene we see them bandaged and miserable, convalescing in a hospital ward.

No other film illustrates the sense of wonder for the automobile in this early period better than *The ‘?’ Motorist* (Walter R. Booth, 1906). Made the same year as the previously discussed *A Trip Down Market Street*, this British trick film made in the tradition of George Méliès is one of the first to align the on screen presentation of automobility with special effects. The three-minute film follows the fantastical journey of a couple after they fail to stop for a policeman in the middle of the road, run him over, and drive off. From there, they drive into the city, heading straight for the wall of an ale house. But instead of colliding with it, the car drives up the wall, disappearing at the top of the frame. The cop runs into the frame, and a crowd gathers looking and pointing up. In the following shot we see a primitive matte shot of what appears to be a drawing of the car driving over the clouds of the city, then, after a cut, driving over the bumpy terrain of clouds gathered at the bottom of a starry sky that dumps them off on

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<sup>129</sup> Georges Méliès, *Complete Catalogue of Genuine and Original ‘Star’ Films* (New York: Geo, 1905), 60. <https://rucore.libraries.rutgers.edu/rutgers-lib/26311/PDF/1/play/>. Accessed October 3, 2020.

the surface of a smiling moon seemingly straight out of Méliès. The car makes one full rotation around the moon's surface before launching back into the sky and shooting out of frame. When it reenters the next shot, now attached to a shooting star, it lands on the rings of Saturn, and makes two full trips around the planet before running off the edge and plummeting through the cloudy nighttime sky. It breaks through the roof of the Handover Court, landing in the middle of a courtroom, then speeds out the door. In the following shot we once again see the actual car in the real space outside of the courtyard where it finally comes to a stop. The man driving the vehicle jumps out to inspect it, but is quickly grabbed by a police officer, and joined by two other men from the court. Suddenly the car transforms into a horse drawn carriage. The policeman and court officials let the driver go, clearly approving of the transformation. The driver climbs into the seat, and as soon as they start to move, the horse drawn carriage turns back into an automobile and the couple speed away, waving at their pursuers, left behind in the dust.

The film embodies the near limitless potential seen in both the cinema and the automobile at the turn of the century. Both lawless and playful, this automobile knows neither limits of gravity nor that of the law. Already we see the couple in place, with the man in the driver's seat, both of whom are operating outside of the law, fleeing their pursuit, decades before Bonnie and Clyde and all the lovers on the run they inspired. Perhaps most crucially, the film fuses the limitless on-screen representation of automobility with special effects. Although we have yet to see the driver or passenger's point-of-view within the automobile, by 1906 the relationship of automobility and special effects has been established.

Most often in these early films, automobility is kept at a distance, observed by stationary or possibly panning cameras by the sides of roads. While automobility in the real world continued to be the hobby of the rich, on screen, cars seemed to be finding their way into the hands of all walks of life: endless eloping couples, romantic rebels, poor but worthy young men, the democratic hero, and even more likely...the villain. In *Motor Pirates* (Arthur Melbourne Cooper, 1906), the eight-minute caper film features another lawless driver – this time in a

fantastical streamlined car, equally inspired by Jules Verne and George Méliès (and anticipating first generation of tanks in World War I) – involved in the abduction of a group of chickens and a subsequent shoot out with local villagers, resulting in the police (looking and acting a lot like the Keystone Cops) giving chase in their own small electric-powered automobile. Before the end of the chase we see the criminals lie in wait crashing into the police car as it passes, then speed away to perform what a title card introduces as “a daring robbery” – involving the streamlined car pulling up beside a couple’s car driving through the country and robbing them while moving. The chase comes to a sudden stop when the criminals crash their car into a river, quickly sinking to the bottom. The criminals soon surface waving to the arriving cops, who throw them ropes to rescue them. With the exception of the reverse-motion sequence of chickens entering/exiting the trunk of the car, the rest of the film is free of special effects. Instead, we are presented with automobility at a distance, portrayed in a series of wide shots, where the vehicle(s) are always seen in conjunction with the road. The futuristic car is kept at a distance so we can never really get a close look at it. Neither are we yet privy to the point of view of the driver or passengers while navigating the roads, or evading the authorities. Although this film offers viewers another of the cinema’s earliest car chases, the camera has yet to join in on the chase, so we are forced to watch from a distance. The most radical element in this film is the body of the car itself, anticipating its future form, its nest and shell, defining strict boundaries between interior and exterior, and anticipating the futuristic aestheticization of the automobile body that by the 1950s would become the norm.

It is only with the introduction of the traveling matte shot in the early 1920s that the experience of automobility itself becomes fused with special effects, resulting in an even more intimate fusion of the traveler on screen with the Traveler-Spectator in the cinema. The patent for the process originally filed in 1916 by Frank D. Williams would go on to become one of the most-used compositing techniques of the 1920s and 1930s, making it possible for the first time

to combine foreground action with moving backgrounds.<sup>130</sup> Registered under the classification of “trick photography,” the ramifications of the “Williams Process” (and later, the competing “Dunning Process”) would be wide-ranging, creating the template for subsequent innovations from rear-projection to blue screen, green screen, and eventually Photoshop and After Effects. As the name “traveling matte” suggests, the process would quickly become associated with the on screen representation of travel and the experience of transportation.

One of the first films that uses the traveling matte, *Manslaughter* (Cecil B. DeMille, 1922), set a new standard for the representation of automobility in the cinema. The film opens with a stylish title card that introduces the film’s heroine: “Unfortunately, for LYDIA THORNE, she has everything in the world she wants – except a Mother and Father. Neither vicious nor criminal – simply ‘speed-mad” and geared too high – her proud boast is that Life has never stopped her.” Below the text we see the star’s name “LEATRICE JOY” spelled out in a much larger font than the rest of the text. In the top left hand corner of the screen is a drawing of a black hand holding a silvery, speeding convertible with, we assume, Lydia at the wheel. So there can be no doubt that the references to her character (“speed-mad” and “geared to high”) are purposefully illustrating her (questionable) character in terms of automobility.

The first shot of the film is an extreme close up of the car’s speedometer hovering at around 55mph – a high speed only the newest automobiles were even capable of in 1922 and certainly not recommended given the condition of the average road (or tires) in that era. The shot dissolves very slowly to a fairly close up shot of Lydia Thorne (Leatrice Joy) shown slightly in profile, grinning gleefully in the driver’s seat of her car. Seen behind her via the traveling matte is footage of a fence-lined roadside, passing by literally in a blur, almost too fast to even comprehend, and photographed slightly too close, so the scale out of balance. Her hat, coat and scarf ripple in a fairly stiff wind to complete the illusion. There is a brief shot of a locomotive racing through the countryside next to the fence we saw intercut here, before returning to the

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<sup>130</sup> Frank D. Williams, Method of Taking Motion Pictures (Patent 1,273,435 [U.S.], filed May 22, 1916, and issued July 23, 1918, Google Patents: US1273435. <https://patents.google.com/patent/US1273435>. Accessed October 4, 2020.



original shot as Lydia looks over her shoulder. In the following shot we get our second traveling matte shot, this time fusing a background that takes up the top two-thirds of the screen that features a wide shot of the train quickly overtaking the car, while the foreground features a profile shot of the front half of the car as Lydia turns to 'look' at her speed rival. In this layered shot we are given additional information that helps fuse the foreground to the background, helping to further establish the sensation of speed for the viewer. The windshield to the car is folded down, opening up the cockpit for the driver to feel the speed of wind in her face. It is here we also notice for the first time there is a dog sitting in the passenger seat; as he stares straight forward the skin around his mouth ripples in the wind. In this shot we can also see the top third of the front tire, which is spinning at a fast rate, to further accentuate the illusion of speed. (All action here moving left to right.)

In the almost 20-second shot the entire background appears to grow nearer to the car, so the train grows in size as they race, now neck in neck. Lydia waves to the train's engineer to dare him, then we get a cut to a closer location shot of just the train as the engineer waves her off, clearly not up for the race. We return to the previous traveling matte shot to see the car accelerate, leaving the train behind, and it quickly disappears from the screen completely. There is a quick cut back to our original profile close up shot of Lydia, now even more charged, but the look quickly changes to concern. In the reverse shot we are again out of the studio and on location at a railroad crossing in the country as the lights flash and crossing arms lower. There is a quick cutaway back to the original close up as Lydia pulls at the emergency brake, then we are back on location as the car spins out of control through the intersection, breaking through the crossing guard. We get a quick flash of the car stalled in the middle of the intersection, as Lydia throws her arms up in the air, then a short irised in shot on the train, framing it in a circle as it heads straight for the camera. There is an even quicker shot of a uniformed man waving at her angrily that follows before returning to the location shot of the railway crossing then a cut – to the car as she pulls away just before the train roars by.

In the opening of the film the lengthy dissolve between the extreme close up of the speedometer and the opening matte shot effectively aligns Leatrice Joy's character with both the mechanism of the automobile and the pleasures of speed it could deliver. But it is the dramatic introduction of the traveling matte in this shot that put audiences literally in the passenger seat of a speeding car on screen, very likely for the very first time. Not only are we seeing two shots collaged into one, but two separate time/spaces, and two very different realities -- an actuality fused with fiction. While the background is essentially documentary footage of a train speeding down a railway in the countryside, the foreground features a Hollywood celebrity (Leatrice Joy) acting in the limited space of an automobile propped up on a soundstage, with several grips rocking the car, as another one spins the front wheel, with large fans blowing on them. The relationship of actuality to fiction here also inverts mobility itself, for it is the background that is captured by a mobile camera, while the automobile in the foreground remains static, in effect, recreating the experience of the panorama introduced over a century earlier.

The use of the traveling matte here is virtually a literalization of Schivelbusch's conception of panoramic perception applied to the experience of automobility. The background that passes by too quickly, experienced as virtually a blur, does exactly as Schivelbusch describes with respect to early locomotive passengers; it aligns our vision with the mechanism of velocity that is creating it -- in this case split between the automobile we are traveling in on screen and the cinema's newest special effect in 1922. Additionally, the background is flattened, as Schivelbusch also describes, heightening the unreality of the space the traveler is speeding through. In *Manslaughter*, the narrative of the film both heightens that point and provides a critique of the "speed demon" who clearly is disconnected from her surroundings. Possibly the most important point to make here is that the use of the traveling matte established a norm for narrative filmmaking, where the on-screen representation of automobility was (almost) always the result of a special effect, and as a result, (almost) always unreal. While the use of the traveling matte was expensive and often unsuccessful, due to difficulties involved with matching

the footage of the background with the foreground, the new process that soon followed would fix those issues, establishing a new standard for the representation of automobility on screen that would remain for decades to follow.

### **OBJECTS SEEM CLOSER THAN THEY APPEAR (IN REAR-PROJECTION)**

“The motion picture industry is constantly progressing. New inventions, new equipment, new laboratory methods, in the studios, are constantly being revealed,” proclaimed Ralph Fear in the January 1932 issue of *American Cinematographer*, announcing Hollywood’s latest technical innovation: “projected background anematography,” or, as it was better known: *rear-projection*.<sup>131</sup> But in fact, the process wasn’t new. The first person to fuse the idea of rear-projection with the portrayal of mobility was Francis Seymour in his 1892 patent for a version of the process for stage productions using a stereopticon (and the logic of the moving panorama) to shift the background slide horizontally behind a vehicle – “boat, wagon, bicycle, horse, train of cars” to create the illusion of movement.<sup>132</sup> In 1913, filmmaker Norman O. Dawn attempted to use an early form of the rear-projection process for two sequences in his film, *The Drifter*, but the quality was so poor he quickly abandoned the process.<sup>133</sup> Film historian George E. Turner names *Sahara* (Arthur Rosson, 1919) as the first production to use a synchronized projector and camera for rear-projection, interlocked mechanically via an eighty-foot drive shaft running across the floor of the soundstage; a system also quickly ruled out because of the unreliable nature in syncing and hazard it presented on the set.<sup>134</sup>

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<sup>131</sup> Ralph Fear, “Projected Background Anematography: A New Method of Making Composite Photographs,” *American Cinematographer*, No. 9 (January, 1932), 11.

<sup>132</sup> Francis Seymour, Apparatus for Producing Scenic Effects (Patent 486,606 [US], filed January 23, 1892, and issued November 22, 1892, Google Patents: US486606. <https://patents.google.com/patent/US486606>. Accessed October 11, 2020.

<sup>133</sup> Raymond Fielding, *Techniques of Special Effects of Cinematography*, Fourth Edition, (Burlington, MA: Focal Press, 1985 [1965]), 248. According to Fielding, “No one knows who first employed rear-projection in film-production,” but Norman O. Dawn was certainly one of the first. Ralph G. Fear cites nine other patents registered between 1911 and 1924 that propose various rear-projection systems. (See Ralph G. Fear, “Projected Background Anematography,” 12, 26.)

<sup>134</sup> George E. Turner, “The Evolution of Special Visual Effects,” *The ASC Treasure of Visual Effects*, Ed. Linwood G. Dunn (Hollywood, CA: American Society of Cinematographers, 1983), 46

It was only once the camera and projector could be linked electronically, synchronizing the shutters of each, that the process really became feasible in 1930<sup>135</sup> – using the same technology had been in place since 1922 running the system of locks on the Panama Canal.<sup>136</sup> As Ralph Fear points out in his 1932 article, announcing the new industry standard two years into its regular use, the practicality of using rear-projection was also due to the development of the high intensity arc lamp, high speed film and wide gauge film.<sup>137</sup> According to Fear, when all the equipment is used properly, “this new method of Trick photographs gives perfect results.”<sup>138</sup>

This sentiment was echoed in the first public announcement of rear-projection to the broader audience of film fans in a December 1932 issue of *Photoplay*: “Universal has brought to the making of this picture [*The Mummy*] an amazing new technical process, unlike any hitherto used.”<sup>139</sup> The article featured the first behind-the-scenes photograph of the rear-projection process to be seen by movie fans. In the photo, which dominates 4/5 of the two-page spread, we see a posed and retouched photograph purportedly shot while making the film – although we never see the scene in the finished film, and the beam of light emanating from the projector onto the screen has clearly been added in afterwards, as has the seemingly ‘perfect’ image on the large screen of a group of men on camels in front of a pyramid in the distance. Tellingly, we see two of the film’s stars (David Manners and Zita Johann) sitting in a “cutaway car” – i.e. a prop car which has its interior literally cut in half exposing the actors sitting inside – as Boris Karloff looms ominously over the pair, and, behind him, the large camera crew looks on approvingly. “A cameraman was sent from Universal’s Berlin office to Egypt to obtain the authentic atmospheric

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<sup>135</sup> Fox Pictures is the first to use the process in two films released just months apart in 1930: *Liliom* (Frank Borzage, 1930) and *Just Imagine* (David Butler, 1930). Both films use the process to present imaginary worlds that would have been impossible to create on screen with the traveling matte – a train voyage to Heaven in *Liliom* and the sci-fi/musical vision of the future in *Just Imagine*.

<sup>136</sup> For an excellent and in-depth discussion of the convoluted history of rear-projection, see Birk Weiberg, “Image as Collective: A History of Optical Effects in Hollywood’s Studio System.” (Ph.D. dissertation, University of Zurich, 2016), 115-212.

<sup>137</sup> Ralph G. Fear, “Projected Background Anematography,” 11.

<sup>138</sup> Ralph G. Fear, “Projected Background Anematography,” 11.

<sup>139</sup> “The Great Pyramids Move to Hollywood and the Egyptian Mummy Comes to Life!,” *Photoplay*, No. 1 (December, 1932), 48.

shots,” the article explains, presenting the device as a method in preserving and presenting authenticity, in effect, bringing the real into the studio. As the article goes on to explain:

The large screen on the left hand page behind the actors and the movable cab interior is of frosted glass. On it we see the Egyptian background scenes being projected from the portable projection booth in the rear. The process is such that the actors in the studio actually appear as an integral part of the Egyptian setting.<sup>140</sup>

In this introduction of rear-projection to the filmgoing public, *Photoplay* presents the screen as bringing reality into the studio and stresses the international profile of the studio and its hyper-mobility – in the form of sending someone from their Berlin office to Egypt to shoot the “authentic” scenes in the film. To the filmgoing public of 1932 this would of course be something closer to the reality of Egypt than simply recreating its atmosphere on a soundstage using sand, miniatures and painted backdrops (which, of course, the film also uses). Essentially, the ad claims, this film would combine the documentary realism of sequences shot in Egypt with the advantages of the dream factory – shooting its biggest stars in the controlled setting of the studio. The appeal here is the same as the actuality in early cinema and, later on, the travelogue – both of which allowed for the spectator to travel to places s/he might otherwise never see – only now fused with fiction, narrative and film stars. What of course isn’t mentioned is the colonial nature of this process, ‘capturing’ footage of these foreign lands -- both in the sense of getting the scenes on film, but also the more imperialistic/militaristic sense of being able to claim control over them, to possess them. What is also elided is the possibly peculiar effect of the juxtaposition of the flatness of the imagery on the rear screen versus the three-dimensional elements in the studio – i.e. the actors and (cutaway) car. In this singular image we have all the elements necessary to ‘sell’ the idea of rear-projection to the filmgoing public: travel to exotic locales, film stars and automobility.

In *The Mummy* there is only one sequence that takes place in a car which uses rear-projection to provide the sense of automobility, assumedly shot in the cutaway car featured in the promotional still seen in *Photoplay*. The singular 75-second sequence heightens the

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<sup>140</sup> “The Great Pyramids Move to Hollywood and the Egyptian Mummy Comes to Life!,” 49

dramatic tension of our horror heroes Frank Whemple (David Manners) and Doctor Muller (Edward Van Sloan) – both, basically reprising their roles from *Dracula* (Tod Browning, 1931) – racing to the rescue of Ruth (Zita Johann), who is under the hypnotic powers of three-thousand year-old villain Imhotep (Boris Karloff). At the same time, their conversation in the back seat of the car provides narrative resolution with the Doctor revealing that Frank’s father didn’t destroy the scrolls he is searching for and didn’t kill himself. This efficient scene provides a neat plot resolution for the first two thirds of the film while simultaneously and viscerally providing the rising action that will shape the trajectory of the last third of the film.

The enclosed interior of the car provides a safe bubble for the plot of the film (Western heroes of the modern era versus the Egyptian foe from the dark past), as well as isolating its Western travelers from the exotic and threatening streets of Cairo, Egypt, seen passing by on the other side of the glass. The world we glimpse outside as it passes by is one populated by a racial and cultural other, marked as surely by the color of skin and difference in dress as the regularity of camels and horse drawn carts amidst an urban cityscape of cars and trucks. This real view of Egyptian streets that would otherwise be confined to the travelogue in the 1930s transports the Traveler-Spectator to a very real world primarily ignored by films made in Hollywood in that period. Viewed in this manner it is easier to understand the eager embrace of rear-projection at the time which infused the fiction with a layer of actuality, even if it was viewed quite literally as a film within a film. While our travelers in this scene pay no mind to the foreign world passing by outside, the Traveler-Spectator has two windows to eye alternately, even if they are pushed to the boundaries of the frame and one can be barely glimpsed behind the characters’ heads; arguably, this could only act to intensify our curiosity, making us want to stretch or strain to see what is hiding behind them. Of course the cabin of the car is the biggest block on our perspective of the ‘outside world,’ providing the solid and dark background of most of the frame, and, effectively, keeping us in the car as Traveler-Spectators while the screens keep us at the prescribed safe distance ensured by rear-projection. Laura Mulvey argues that in cases like

these, “the split between foreground and background threatens the coherence, and thus the realism, of fictional time. The artificiality of the studio as fictional space and the artificiality of the star as fictional character are heightened as star presence, almost literally, come to the fore.”<sup>141</sup> Echoing Mulvey, Vivian Sobchack later argues that with rear-projection (or “back projection” as she insists on calling it) “any ‘real’ mobility is forestalled on all sides.”<sup>142</sup>

With due respect to both of these pioneering film scholars, I would argue that actually the opposite is true on both points. First of all, with rear-projection it is automobility itself that often comes to the fore – the literal vehicle for the star(s), dominating screen space-time and effecting control over him/her within the strict confines of its environment. Secondly, rear-projection provides hyper-mobility, transporting the Traveler-Spectator to other countries and cultures virtually unseen in this era outside of travelogues and documentaries. Yes, these scenes are flattened, at times blurred and obscured (by at least one generation), but they are real views of the world, photographed on location, and offer the Traveler-Spectator the promise of near-infinite mobility offered similarly by automobility itself.

Considered by itself, the footage on the rear-screen appears as a first-person account of the experience of the road. It was on this screen that the actual movement took place – typically shot by an entirely different camera crew termed the 2<sup>nd</sup> unit (or eventually pulled from a studio’s library of pre-existing stock footage). The perspectives shot by the 2<sup>nd</sup> unit to be used for driving footage projected on the rear-screen anticipate the basic coverage of a scene in an automobile. The master shot of the car’s occupant(s) with the road seen behind them framed by the rear windscreen tends to dominate screentime. The footage often is a symmetrical composition with the road in the middle, effectively separating the surroundings in equal halves, rural, urban or otherwise. Less common, but necessary to establishing the experience of automobility by our characters is another establishing shot from behind our character(s),

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<sup>141</sup> Laura Mulvey, “Rear Projection and the Paradoxes of Hollywood Realism,” *Theorizing World Cinema*, Ed. Lúcia Nagib, Chris Perriam and Rajinder Dudrah (New York: I.B. Tauris, 2012), 210.

<sup>142</sup> Vivian Sobchack, “*Detour*: Driving in a Back Projection, or Forestalled by Film Noir,” *Kiss the Blood Off My Hands: On Classic Film Noir*, Ed. Robert Miklitsch (Champaign, IL: University of Illinois Press, 2014), 120.

ostensibly shot from the perspective of someone in the backseat (an unseen passenger), looking at the road ahead, framed by the front windscreen of the car. Here our actors are often in chiaroscuro, their heads, shadowy shapes partially obscuring our first-person perspective of the road ahead as we move through it. This perspective is perhaps the 'weirdest' as it functions as sort of mirror, reflecting an image of a spectator staring at a screen, accepting the illusion of mobility as real. Often we will see our characters turn to look at one another, so we see them in profile, their faces half-visible, half-alight from whatever source we see being projected in the footage on the rear-projection screen. But to sustain the illusion of driving, the character in the driver's seat cannot turn away from the windscreen for too long, again mirroring the Traveler-Spectator, who also dare not turn away from the cinema screen for too long. The other two perspectives anticipate our alternating close ups of passengers on the driver's side or passenger's side of the car (front seat or back seat); here we get a moving perspective of whatever environment flanks the car, framed by the door windows. So, with every shot that takes place in the interior/nest of the automobile, the screen is, in effect, tripled. There is of course the screen that the film is playing on (in a theatre, in your home, on your phone); there is the rear-screen that the traveling footage of the road is projected on, and of course there are the windscreens of the car itself (front, rear, side). Just as the windows or windscreens in an actual car tend to flatten perspective of the world outside, the use of rear-projection to create the illusion of automobility is a very literal flattening of that world. It is that experience of flattening while being in a car that helps us to make sense of the use of rear-projection screens. It is also, in effect, a claim of mastery over that world. To drive through the world is to know it, to make a certain claim over it, in the world as on the screen.

While recognized as one of the most emblematic special effects of the classical film period, with its standardized usage stretching for almost four decades, rear-projection remains barely discussed, both critically and historically. To date, there are only a handful of scholarly articles that seek to address the use of rear-projection, most of them inspired by a one-page article written



by Laura Mulvey for *Film Quarterly* in 2007 called “A Clumsy Sublime” (which Mulvey admits was sparked by an earlier article “The Wandering Gaze: Hitchcock’s Use of *Transparencies*” by Dominique Paini).<sup>143</sup> Mulvey, and the small handful of writers who have written about rear-projection since then (Vivian Sobchack, Adrian Danks, Julie Turnock, Hugh Manon<sup>144</sup>) have all addressed it on a similarly qualitative level describing it with words and phrases like: “bad cinema,” “fake,” “inept,” “distracting,” “clumsy,” “mocked,” “despised,” “artificial,” “archaic” and a “formal flaw” – while simultaneously singling the process out as a conspicuous artifact of the studio system that has remained relatively ignored by academia. Echoing the tone of Roland Barthes’ *Camera Lucida*, Mulvey reflects in both of her articles that “rear projection seems in hindsight like an aesthetic emblem of the bygone studio era,” and that “its disappearance has given this once-despised technology new interest and poignancy.”<sup>145</sup> While Adrian Danks agrees with Mulvey that rear-projection has “not received its fair share of critical attention,” he disagrees with most of the rest of her claims, often in explicitly argumentative terms:

Rear-projection is a ubiquitous device that has not received its fair share of critical attention. Although it has been discussed in piecemeal fashion in relation to the work of Alfred Hitchcock, and alongside other technical stylistic innovations of the 1930s more generally, it is more routinely relegated to the realm of the anachronistic and the technically and aesthetically suspect (or inept). In this respect it is a pertinent form or technique to analyze in relation to the question of what might constitute ‘bad cinema’ particularly in an aesthetic sense. Rear-projection has often been singled out as a ‘bad’ technique due to such factors as its self-consciousness, spatial and temporal discontinuity, artificiality, pictorial inability to adequately suggest appropriate lines of perspective, hermetic qualities, and imperialist and colonialist implications.<sup>146</sup>

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<sup>143</sup> Five years later, Mulvey would later expand on the ideas first mentioned in this article in another article titled “Rear Projection and the Paradoxes of Hollywood Realism,” (See Lucia Nagrib, Chris Perriam, Rajinder Dudrah, Ed., *Theorizing World Cinema* (London: I.B. Taurus, 2012), 207-220. See also Dominique Paini, “The Wandering Gaze: Hitchcock’s Use of *Transparencies*,” *Fatal Coincidences: Hitchcock and Art* (Montreal: Montreal Museum of Fine Arts, Mazotta, 2000), 51-78.

<sup>144</sup> See Vivian Sobchack, “*Detour*: Driving in a Back Projection, or Forestalled by Film Noir,” *Kiss the Blood Off My Hands: On Classic Film Noir*, Ed. Robert Miklitsch (Champaign, IL: University of Illinois Press, 2014), 113-129; Adrian Danks, “Being in Two Places at the Same Time: The Forgotten Geography of Rear-Projection,” *B is for Bad Cinema: Aesthetics, Politics and Cultural Value*, Ed. Claire Perkins and Constantine Verevis (Albany, NY: SUNY Press, 2014), 65-84; Adrian Danks, “Rudimentary Modernism: Ken G Hall, Rear-Projection and 1930s Hollywood,” *American-Australian Cinema: Trans-National Connections*, Ed. Adrian Danks, Stephen Gaunson, and Peter C. Kunze (London: Palgrave-Macmillan, 2018), 19-39; Julie Turnock, “The Screen on the Set: The Problem of Classical-Studio Rear Projection,” *Cinema Journal*, Vol. 51, No. 2 (Winter 2012), 157-162; Hugh S. Manon, “Fantasy and Failure in *Strange Illusion*,” *The Films of Edgar G. Ulmer*, Ed. Bernd Herzogenrath (Lanham, MD: Scarecrow Press, 2009), 159-174; Hugh S. Manon, “See Spot: The Parametric Film Noirs of Edgar G. Ulmer,” *Edgar G. Ulmer: Detour on Poverty Row*, Ed. Gary Rhodes (Plymouth, U.K.: Lexington Books, 2010), 97-116.

<sup>145</sup> Laura Mulvey, “A Clumsy Sublime,” *Film Quarterly*, Vol. 60, No. 3 (Spring 2007), 3; Mulvey repeats these sentiments in her later article, “Rear Projection and the Paradoxes of Hollywood Realism,” 208.

On this subject, Turnock asks two still seemingly unanswered questions: “Did producers and spectators in the past think that it looked bad? And if it did look so bad, why did the technique persist, especially since postproduction opticals were felt by many technicians to create a more seamless photorealistic effect?”<sup>147</sup> For Turnock, the answer is simple: “the practical benefits involved in rear projection – speed, efficiency, consistency, and controllability” outweighed everything else.<sup>148</sup> But the reasons went further than that.

Even after the standardization of rear-projection, many cinematographers continued to prefer the traveling matte for a long list of reasons: It required little space in the studio, was considered by most to be a better quality than rear screen projection, particularly with wide angle shots and wide-screen formats. With the traveling matte, the foreground and background images could be equally sharp because there was no loss of generation (inherent in rear-projection). Because of this, the process allowed for a greater depth-of-field, ultimately providing a greater sense of three-dimensional depth to the spectator. The traveling matte shot was arguably more versatile in that it could be shot at a wide range of camera speeds – while rear-projection was limited to a strict 24 frames per second since most background projectors would only run at that speed.<sup>149</sup>

However, rear-projection quickly became the favored method in Hollywood studios as well as abroad. The most obvious reason was expense. Although the challenge in using rear-projection was getting the foreground and background elements balanced, the fact that they were completed at the same time on the set while all the personnel was present meant less studio time, and less money spent overall. (As opposed to traveling mattes or, later on, blue screen composites, which would often take weeks to process, and you would never really know if

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<sup>146</sup> Adrian Danks, “Being in Two Places at the Same Time: The Forgotten Geography of Rear-Projection,” *B is for Bad Cinema: Aesthetics, Politics and Cultural Value*, Ed. Claire Perkins and Constantine Verevis (Albany, NY: SUNY Press, 2014), 66.

<sup>147</sup> Julie Turnock, “The Screen on the Set: The Problem of Classical-Studio Rear Projection,” *Cinema Journal*, Vol. 51, No. 2 (Winter 2012), 159.

<sup>148</sup> Julie Turnock, “The Screen on the Set,” 160.

<sup>149</sup> For a detailed list of pros and cons regarding the competing formats, see Raymond Fielding, *Techniques of Special Effects of Cinematography*, 221-223.

they were successful until then.) There were technical advantages as well. With rear-projection, everyone on the set could see the action in both the foreground and background – which meant directors and cinematographers could see the whole of the *mise-en-scène* while photographing the scene and directing the actors, and performers could see and react to the environments they were supposed to be in. Another distinct advantage of rear-projection was the fact that the camera could also be mobile – enabling the use of pans and tracking shots that were virtually impossible with the traveling matte.

While practical usage of rear-projection in film production is described in detail in Raymond Fielding's standard reference work, *The Technique of Special Effects Cinematography*, first published in 1965, a detailed study of its history only appeared in 2016 by Swiss film scholar Birk Weiberg, as one chapter in an as-yet unpublished dissertation, "Image as Collective: A History of Optical Effects in Hollywood's Studio System." While Fielding credits the embrace of the innovation in the early 1930s as the response to coming of sound, and the resulting need for soundproof stages,<sup>150</sup> Weiberg describes it as the result of a shift in production practices, signaling a shift in power from the cinematographer to the studios' special effects units.<sup>151</sup> Cinematographer Farciot Edouart, champion of rear-projection (and head of Paramount's rear-projection department for decades) described the "many-fathered idea" as something "that was never invented, in the strict sense of the word – much less engineered. It just happened [...] with no opportunity for being engineered into a technologically streamlined coordination of methods and equipment."<sup>152</sup> Over six decades later, Mulvey refers to it as "an attempt to reconcile the conflicting demands of star performances and action sequences," specifically noting that "stars' close ups and dialogue could not necessarily be recorded during scenes involving dramatic action (or even driving a car)."<sup>153</sup> It is in fact the relationship of rear-

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<sup>150</sup> Raymond Fielding, *The Technique of Special Effects Cinematography*, 4<sup>th</sup> Edition (London: Focal, 1985 [1965]), 248.

<sup>151</sup> Birk Weiberg, "Image as Collective: A History of Optical Effects in Hollywood's Studio System." (Ph.D. dissertation, University of Zurich, 2016).

<sup>152</sup> Farciot Edouart, "The Evolution of Transparency Process," *American Cinematographer*, Vol. 24 (October, 1943), 359.

projection and the automobile that literally every critic and historian on the short list of writers who have written about the technology mentions. Fielding devotes an entire section to its use with regard to automobiles, noting that “one of the most common uses to which background projection is put is the simulation of automobile interior scenes.”<sup>154</sup> It will be helpful to quote Fielding’s detailed description of its use in a film production here:

The actors [are] seated within a real or break-away automobile chassis, with a moving-camera scene of traffic being projected onto the screen behind them. For the photography of such background plates, the camera is mounted on an automobile, pointed in whatever direction is required for the scene, and set running while the vehicle moves through traffic. For best results, a specially-designed camera-car is employed which has running-board extensions and mounting pedestals on four sides, and which is specially sprung with shock absorbers so as to reduce the amount of vibration transmitted to the camera. The requirements for registration accuracy and camera steadiness are much less severe for this work than for static camera shots, inasmuch as a certain amount of jiggle is expected in a moving background.<sup>155</sup>

In 1965, when Fielding first wrote this, rear-projection had been the industry standard for the representation of automobility on screen for thirty-five years.<sup>156</sup> While its use had fallen out of fashion by then in its use as doubling for exteriors, with both filmmakers and audiences increasingly preferring films shot on location, rear-projection remained firmly entrenched in production methods when it came to filming any scenes involving automobiles. It is a curious phenomenon to consider – the cinema’s continued insistence on using rear-projection for sequences of automobility – while the rest of its uses evaporate. While it may be tempting to fall back on the original argument for rear-projection that Mulvey mentions – the sanctity of the star and privileging dialogue sequences above all else – there are conspicuous exceptions to this rule: *Gun Crazy* (Joseph H. Lewis, 1950) and *Kiss Me Deadly* (Robert Aldrich, 1955) in the U.S. and *A bout de souffle* (Jean-Luc Godard, 1960) in France.

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<sup>153</sup> Laura Mulvey, “A Clumsy Sublime,” 3.

<sup>154</sup> Raymond Fielding, *The Technique of Special Effects Cinematography*, 271.

<sup>155</sup> Raymond Fielding, *The Technique of Special Effects Cinematography*, 271.

<sup>156</sup> This would soon start to change. See Chapter Three for an in-depth discussion.

But more commonly, rear-projection continued to provide the ‘normalized’ view of automobility to spectators, with literally thousands of films released in this era from all over the world. Following Mulvey’s lead, most contemporary critics point to the disjuncture and confusion of time-spaces that rear-projection provided viewers: “Rear projection introduces a different kind of dual temporality: two diverse registration times are ‘montaged’ into a single image. While this is true of any photographic superimposition, the dramatic contrast between the ‘document’-like nature of the projected images and the artificiality of the studio scene heightens the sense of temporal dislocation.”<sup>157</sup> But I would argue that it is precisely for this reason that makes its usage in traveling sequences so true to the experience of automobility. The confusions of time/space, interior/exterior, movement/stasis, actuality/fiction, are the same set of paradoxes experienced every time you get into an automobile.<sup>158</sup>

With the introduction of rear-projection, the Traveler-Spectator was able to get in the car with the characters they saw on screen for the first time. But the new view they were given was actually a POV that stretched back to almost the very birth of the cinema and the *phantom ride* – that for a brief period of time at the turn of the century (from 19<sup>th</sup> to 20<sup>th</sup>) was the most popular genre in the world. Of course, conceptually speaking, *Hale’s Tours* and the crop of “movie rides” they inspired where these phantom rides were often seen all relied on the mechanism of rear-projection to create the sensation of movement for the Traveler-Spectator for almost a decade starting in 1904.<sup>159</sup> Strangely, no film historian has ever made this conspicuous

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<sup>157</sup> Laura Mulvey, “A Clumsy Sublime,” 3.

<sup>158</sup> The list of paradoxes associated with and inherent to rear-projection arguably begins with the materiality of the rear-screen. Birk Weiberg explains: “A screen for rear projection is an object that by definition has to combine two antithetic requirements: It has to be transparent and opaque at the same time; transparent because it should allow for as much light as possible to pass from its back to the front; and opaque as it should catch and refract the same light to actualize the latent image for the camera in front of it.” (Birk Weiberg, *Image as Collective*, 123.) In 1930 when rear-projection was first embraced by Hollywood, screens were usually made of a large piece of ground plate glass that was then sandblasted to give it a layer of non-transparency, creating the standard that existed for the first several years of its usage. Using glass meant the process was expensive and potentially dangerous, as in the case of a 1934 report in *American Cinematographer* where a shattered screen “amputated an arm as cleanly as any guillotine.” (Arthur Campbell, “A Fireproof Process Screen,” *American Cinematographer* 14, No. 10 (February, 1934), 406.) In this sense, the screens used for rear screen projection are in fact closer to the windscreen/windshield of an automobile than a movie screen. Add to this, the fact that these giant screens were mounted on a cart with steerable wheels (as seen in the *Photoplay* article on *The Mummy*) meant that the giant ensemble resembled the form of the automobile – albeit one with no interior. Instead, pure screen.

<sup>159</sup> Discussing *Hale’s Tours* Lauren Rabinovitz describes: “Using rear screen projection in many cases so that the projector was not seen, the movies shown out the front end of the otherwise closed car generally offered a filmed point of view from the front or rear of a moving train, producing the illusion of movement into or away from a scene while mechanical apparatus and levers simultaneously

connection. After all, the process of rear-projection was, in effect, turning the soundstage into a virtual replication of the immersive settings *Hale's Tours* and *Tim Hurst Auto Tours* created for filmgoers. Only now it was the actors going on these phantom rides, with a camera turned on them so we, as Traveler-Spectators, could accompany them on their journeys. Similarly, while these theaters used patented mechanisms to vibrate, rock and tilt the "car" (whether train or automobile), when shooting a traveling scene involving rear-projection the car containing the actors would be jostled by the film crew off-screen to achieve a similar effect.

There are a number of aspects of the phantom ride that rear-projection retained. The process of shooting the footage necessary for rear-projection was essentially the same as it was for the phantom ride – both required a camera mounted to an automobile. Footage on the rear-screen is still an actuality; still documentary proof that a camera crew went to a real location, mounted the camera to a car and shot footage of a real environment. The resulting POV was also the same – a first person perspective which aligned the vision of the viewer with the automobile as it moved through an environment. While the phantom ride began predominantly as a railway view (or possibly a road with tracks embedded in it), with rear-projection the view is more often aligned with the perspective of automobility – i.e. a road instead of tracks. With this change comes more versatile mobility, increased directionality, mirroring the extensive roadwork that eventually provided access to almost any part in the world: avenues, boulevards, streets, roads, paths in the country or city. While the phantom ride rarely offered views other than straight ahead or straight back into a Renaissance perspective of a road leading to a vanishing point typically centered in the landscape/field of vision, rear-projection was bound to narrative filmmaking, which necessarily demanded coverage of each scene from a variety of angles. So with rear-projection the view shifts back and forth from phantom ride (seen through either the

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vibrated, rocked, and tilted the car." (Lauren Rabinovitz, "From *Hale's Tours* to *Star Tours*: Virtual Voyages, Travel Ride Films and the Delirium of the Hyper-Real, 42.)

front or rear windscreen when shooting the actors from either the front or rear) to panorama (seen through the side windows when shooting actors in profile).<sup>160</sup>

In the original phantom ride films, of course, there were no edits; they were one-shot films, and a large part of their appeal was duration. Whether playing in a loop in the late 19<sup>th</sup> century, or in the form of longer phantom rides like *A Trip Down Market Street*, the experience was immersive, a unique experience of the cinema that provided both attractions and contemplation. With rear-projection however, the phantom ride is, in essence, chopped up, providing the spectator with a multiplicity of views. Rather than just aligning us with the POV of automobility as the phantom ride did, we are now inside the car with the characters on screen, often aligned with their POVs via the standardized film language of shot/reverse-shot. As a result, the spectator's POV is further mediated by the additional layer(s) of fictional character(s) on screen. Additionally, both the bodies of the actors in the car and the body of the automobile itself partly obscures our view of what is on the rear-screen.

With the phantom ride, the only limit on the Traveler-Spectator's view was the frame of the screen itself. But once it is reappropriated for use in rear-projection, the phantom ride is now confined to a screen within a screen – specifically the windscreens of the automobile on the soundstage. As a result, the relationship of foreground to background we saw in the phantom ride is now inverted, with the phantom ride on the rear-screen always in the background, and the mode of transportation and characters who are doing the traveling in the foreground. By framing the phantom ride via the views of automobility, the actuality is absorbed by the fiction.

While the view seen in rear-projection remains in the first-person, it is now often explicitly aligned with the windscreens of the automobile – front, rear or sides – none of which existed in the era of the original phantom rides. The frame of the windscreen becomes the frame of the phantom ride being projected on the rear screen. In the era of the original phantom rides,

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<sup>160</sup> As Raymond Fielding points out in his standard reference work, *Techniques of Special Effects of Cinematography*, "The background scene is usually taken from a variety of angles, so as to allow the sound-stage cameraman to photograph the actors from any angle the director wishes. The most common angles used are straight-back, 45° back on either side, and 90° to either side. Occasionally, too, the need arises for shots taken straight forward and 45° forward on either side. These differently angled plates can either be shot with a single camera on successive trips, or with multiple cameras operating simultaneously on a single run." (272)

automobiles did not yet have windscreens; in fact, they didn't even have enclosed cabins! (Cadillac would offer this innovation as an option starting in 1910, but the idea wouldn't really catch on until the following decade.) So, while the phantom ride was anticipating the view accessed through a windshield that did not yet exist to an audience who, for the most part, had not yet even been in an automobile, the portrayal of automobility starting in the 1930s with rear-projection was reflecting back the spectator's own experience of traveling by automobile. Although the original era of phantom rides helped inform and shape conceptions of automobility, and perception within an automobile, by 1930, spectators were using their own experience of automobility to help make sense of its new portrayal in the cinema via rear-projection.<sup>161</sup> I would argue that it is this explicit alignment with the windscreens that helped audiences in that period forgive the comparative flatness of the rear-projection (something contemporary Traveler-Spectators and critics seem unable to comprehend); after all, it was replicating their own experience in the automobile, where what lies beyond the windshield is perceived as flat. This may also help to explain why rear-projection is more convincing in the case of an enclosed car – more so than sequences taking place in a convertible with an open top.

While the joy of the phantom ride was the illusion of seemingly infinite depth, when projected on a rear-screen, behind the three-dimensional foreground of the car-actor ensemble, its flatness is accentuated. This is at least partly due to the loss of generation when using rear-projection. There is, after all, a generation gap between what is being filmed in the studio in the foreground, and what was shot previously on location, now being projected on the rear-screen.

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<sup>161</sup> By 1930, film spectators' relationship to automobility had changed drastically. In the original era of the phantom ride, 1895-1910, most filmgoers had never even been in an automobile. At that point, automobility was a luxury only enjoyed by a very few -- and the very richest. The introduction of the Ford Model T in 1908 changed all that. It was the first automobile mass-produced on moving assembly lines with interchangeable parts; more importantly, it was the first automobile made affordable and marketed to the middle class. As Henry Ford described his mission statement: "I will build a motor car for the multitude. It will be large enough for the family, but small enough for the individual to run and care for. It will be constructed of the best materials, by the best men to be hired, after the simplest designs that modern engineering can devise. But it will be so low in price that no man making a good salary will be unable to own -- and enjoy with his family the blessing of hours of pleasure in God's great open spaces." (Henry Ford and Samuel Crowther, *My Life and Work* (Garden City, NY: Garden City Publishing Company, 1922), 73.) In 1900 there were less than 8,000 automobiles in the United States. By 1920 there were 9 million automobiles registered in the United States (up from there were seven and a half million the previous year); by 1930 there were more than 26 million -- and over half of them were Model T's. In 1919 only one in ten cars were closed-body, most were luxury cars; by 1929 90% of the cars were sedans with enclosed interiors. (See the U.S. Department of Transportation Federal Highway Administration website: <https://www.fhwa.dot.gov/ohim/summary95/mv200.pdf>. Accessed October 12, 2020.) These facts and figures go a long way towards illustrating just how universal automobility had become by 1930. By then driving was literally an everyday experience for most film goers.



This loss of generation always meant there would be a slippage in the reality effect of rear-projection – a point seized on by proponents of the traveling matte process, where there was no loss of generation, and both elements, foreground and background, remained in sharp focus. But I would also argue that this is a result of “jigsawing” (to use Raymond Fielding’s word for it) a phantom ride through a real environment into the overpowering context of the fictional world of a narrative film. After all, we are now accompanying these characters on their journey – in a very specific time-space, going to and from specific locations as dictated by the film’s narrative. With the original phantom rides the spectator was only aligned with automobility itself in the far more open-ended and seemingly limitless time-space of driving – making the experience closer to driving one’s own car.

In the original era of the phantom rides, the experience of automobility was an open-aired affair – a thrilling experience of being propelled through an environment while sitting *on* a machine. This was the experience the phantom ride then replicated on screen, offering spectators the first-person experience of speeding through an environment, mounted to the vehicle, moving through the open air. But with the standardization of the cab or cockpit of the automobility in the 1920s the automobile begins to be conceived as having both an interior and an exterior (a nest and a shell, which will be explored in detail in the next chapter); henceforth, the traveler is sitting *in* the machine. But because of the windscreens, automobility is experienced by the traveler as a hybrid space that is both inside and outside. This strange status of interior/exterior in an automobile finds its cinematic double via rear-projection. As Traveler-Spectators we see a space that is both/neither inside/outside on screen. It is a confusion, but it is also confirmation of our own experiences in an automobile.

Sociologists like Tim Dant take this idea one step further, arguing that the relationship of the car and driver is symbiotic, and the combination of the car and driver acts as one body – a social being that “results from the collaboration of human and machine,” not unlike the “cyborg”

Donna Haraway famously interrogated.<sup>162</sup> Dant refers to his conceptualization of this assemblage as the “Driver-Car,” a term first coined in a provocative and influential article published in 2004. Informed by phenomenologist Maurice Merleau-Ponty, Dant argues that there is an embodied relationship between the driver and car. I would go even further, arguing that there is also, to a lesser degree, an embodied relationship between the car and all passengers in its interior/nest.<sup>163</sup> As Dant explains with regard to our relationship to the automobile:

[...] For Merleau-Ponty visual perception is an orientation of the whole body to the world through which it moves. What is perceived in the visual field is complemented by the kinaesthesia of the body and its trajectory as a whole, by the sounds of the engine, the road and the wind on the car, by the resistance of steering wheel, accelerator and brakes – even the feel of the road through the wheels of the car.<sup>164</sup>

In the cinema, these elements are doubled on screen and experienced in the visual register by the Traveler-Spectator. The rest of the “kinaesthetic” elements and the physicality involved in the act of driving are provided by body-memory of our own experiences in the automobile – which most Traveler-Spectators had by the late 1920s. As Dant explains, “For most people in late modernity the experience of the driver-car becomes an aspect of bodily experience that they carry into all their other perceptions and engagements with the material world in a way that they take for granted and treat as unremarkable.”<sup>165</sup> Although Dant does not mention the cinema specifically in his article, it certainly seems applicable here, especially as the experience of the viewer of a film virtually mirrors that of the character(s) onscreen, transforming him/her into the “Traveler-Spectator” – as opposed to the more passive “spectator-passenger” that Lynne Kirby describes in her book with regard to the relationship of trains and film.<sup>166</sup>

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<sup>162</sup> Tim Dant, “The Driver-Car,” *Automobilities*, Ed. Mike Featherstone, Nigel Thrift and John Urry (London: SAGE Publications, 2005), 62. See also: Donna Haraway, “A Cyborg Manifesto: Science, Technology, and Socialist-Feminism in the Late Twentieth Century,” *Simians, Cyborgs and Women: The Reinvention of Nature* (New York: Routledge, 1991), 149-182.

<sup>163</sup> These concepts will be explored in more detail in Chapter Two.

<sup>164</sup> Tim Dant, “The Driver-Car,” 72.

<sup>165</sup> Tim Dant, “The Driver-Car,” 74.

<sup>166</sup> See Lynne Kirby, *Parallel Tracks: The Railroad and Silent Cinema*, 3.

This, too, can go a long way towards explaining the seemingly easy, and even enthusiastic acceptance of rear-projection in the 1930s. Like the passenger lulled to sleep by the combination of the blur of landscape, hum of road noise, and gentle rocking of the road in the comfort of the nest of the automobile, the Traveler-Spectator is similarly lulled into accepting the portrayal of automobility on screen as a reflection of his or her body memory of traveling in his or her own car. The longevity of rear-projection's usage in the cinema meant that for decades this was very likely the only way automobility was presented on screen, so spectators nestled back in their seats and just tried to enjoy the ride, as any Traveler-Spectator would on a long trip.

There is a physicality to the experience of both the phantom ride and its appropriation by rear-projection. Bumps in the road are registered optically; a swift turn or swerving results in a feeling of wooziness in the viewer, possibly even a blurring of vision. The camera is, after all, still physically in contact with the surface of the road, filtered through the apparatus of automobility (tires, shock absorbers, metal frame). This is very different than the (modern) view of a Steadicam or GoPro, gliding through environments, seemingly disembodied and detached, purely technological, clinical or ghostly. There is a suppleness to the phantom ride, a palpable embodiment (in spite of its name). This sensation is only enhanced by the presence of the automobile in the studio setting being gently rocked by the seemingly tireless hands of studio grips. There is a certain disconnect here – brought on by a lack of sync between movements registered in the road footage, and the 'acted' movements of automobile (or shell) on the soundstage. Each element seems to have its own rhythm. While the characters in the car are in sync with the rhythm of the rocking automobile (or cutaway car) they are in, those movements do not necessarily always match up with the rhythm of the road seen in the rear-projection. Partly, this is also due to the loss of generation with the footage on the rear screen, where the movements seem more of an echo, as if there was a delayed reaction connecting the fiction in the foreground to the reality of the background, now experienced as a film within a film.

With rear-projection the phantom ride had been absorbed into the mise-en-scene; simultaneously a film within a film, and a mirror image of the Traveler-Spectator in the theater whose movements were, necessarily, almost completely constrained in front of the near-constant motion on screen. There was of course a second layer of reflection also at work here, and also invisible: the motion picture camera on one side of the rear screen and the motion picture projector on the other, necessarily set up precisely one-hundred-and-eighty-degrees from one another. Once in sync, they would offer the world a new vision of automobility, and access to worlds of automobility previously unseen by the average driver.

### **THE CROWD ROARS (FOR WRECKS, BLOOD, FIRE...AND REAR-PROJECTION)**

Warner Brothers debuted their version of rear-projection with *The Last Flight* (William Dieterle, 1931), followed by *The Crowd Roars* (Howard Hawks, 1932). Directed by a young Howard Hawks, *The Crowd Roars* was the first sound film set in the world of auto racing, which was climbing to worldwide popularity in the 1930s. Filming began in December 1931 and the film was released in April of 1932, offering the movie going public one of its first views of automobility via rear-projection. As *Variety* pointed out at the time of the film's release, "the sequence of night racing is, perhaps, on the screen for the first time outside the newsreels."<sup>167</sup> Although the film was largely panned by most critics and film historians, recognized as an early minor work even by Hawks aficionados, the film is responsible for creating the template for narrative films set in the racing world for decades to follow – including Hawks' own later *Red Line 7000* (Howard Hawks, 1965), *Grand Prix* (John Frankenheimer, 1966) and *LeMans* (Lee H. Katzin, 1971).<sup>168</sup> Like those later films, the structure of *The Crowd Roars* is really a road movie about racing, following the ups and downs in the personal and racing life of driver Joe Greer (James Cagney) as he follows the road racing circuit which builds to its dramatic climax at

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<sup>167</sup> Sid Silverman, "The Crowd Roars," *Variety* (March 29, 1932), 24.

<sup>168</sup> These last two films, in particular, will be discussed in detail in Chapter Four. Tellingly, the trio of races seen in *The Crowd Roars* (Indianapolis 500), *Grand Prix* (Monaco Grand Prix) and *Le Mans* (24 Hours of LeMans) are considered the Triple Crown of Motorsport. Cinematically speaking, I would argue, the three films are the Triple Crown of racing films.

the Indianapolis speedway. The film's three racing sequences were singled out by *Variety* as being the real draw of the picture, "that will mainly gesture to the adolescents with its high speed appeal and will probably be the cause of many a bent mud guard around the country."<sup>169</sup>

Even before the opening credits we are introduced to the thrills of big screen racing and limitations of the rear-projection used throughout the film to varying degrees of success. The film opens with the standard Warner Bros. Pictures, Inc. & the Vitaphone Corp Present logo, but instead of the typical orchestral fanfare which opens most of the studio's films in that period, we hear a soundtrack of only racing engines.<sup>170</sup> The logo dissolves to stock footage of a solitary open racecar speeding around the curve at the Legion Ascot Speedway in El Sereno, known colloquially to racing fans as the "Killer Track," because of its reputation for killing more drivers than any other track in the U.S.. There are several quick cuts, moving in closer on the racecar as it weaves in and around slower cars – until there is the sound of a blow out and screeching tires, as the lead car goes into a slide. Then we get our first shot using rear-projection – with the driver in the foreground as he jerks at the wheel, clearly shot on a studio soundstage; on the rear-screen behind him we see projected footage of the other racers trailing him on the dusty track. The shot only lasts for a few seconds then we return to now even grainier stock footage of a spectacular crash – as a similar (but obviously different) race car rolls over multiple times heading almost straight for the camera, disintegrating as it rolls violently, and sending its driver sliding across the track just in front of the camera. We hear screams and shouts on the soundtrack registering a mix of excitement and horror, then a quick cut of the crowd in the stands getting to their feet, which quickly dissolves to the title card with a flourish of orchestral music. As love interest Lee Merrick (Ann Dvorak) points out to Joe Greer (Cagney) in her introductory scene, "The crowd roaring in the grandstand, they're a lot of people watching for wrecks or roaring for blood. All they want is to

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<sup>169</sup> Sid Silverman, "The Crowd Roars," *Variety* (March 29, 1932), 24. Interestingly, as the *Variety* review points out, the film was timed for release around the annual Indianapolis 500 race over the Memorial Day weekend, so the film would have just as likely promoted the race as the race would have helped promote interest in the film in 1932.

<sup>170</sup> This introduction would be repeated verbatim almost forty years later in *Two-Lane Blacktop* (Monte Hellman, 1970); see Chapter Four for an in-depth discussion of that film.

see is a car turned over half a dozen times and hold their breath.” Of course that reading of the title equally describes both the interest of racing fans and cinema fans, who likewise approach a racing film with the expectation of the crash as part of the onscreen experience of automobility. It is with the then-new technology of rear-projection that film spectators for the first time could experience the perspectives of these daring drivers, and even the perspective of a fiery and fatal crash – albeit from the safety of their seats in the theater.

The first racing sequence in the film is shot at the Legion Ascot Speedway in El Sereno which was the setting for the fiery opening sequence. The set up for the race is shot entirely on location where we see our star, James Cagney and his stalwart costars Frank McHugh and Guy Kibbee preparing the car for the race, footage of the crowd, and eventually the preliminary laps when the racers get into position (as the announcer tells us). It is here we get our first process shot of Cagney in his car in front of the rear-projection screen where we see the other cars behind him, followed by a process shot of Eddie (Frank McHugh) in his car, also seen in front of the rear-projection screen, as the two carry on a conversation which of course could not be heard by anyone if shot on location. The quality of the footage on the rear-screen here is grainy and slightly out of perspective from the foreground (with the cars in the background appearing larger than they should). By contrast, location footage of the race is stirring and dynamic, caught in a series of pans and wide shots. The most effective use of rear-projection in the sequence are shots captured by cameras aligned with the front of the race cars and near to the ground, looking past the spinning rear wheel and the cars behind them. The dusty track and smoke on set work well together to suture together fore- and backgrounds, making for more convincing compositions. In fact, much of the rear-projection footage cannot be seen clearly in this sequence because of the dust flying in virtually every shot (established by the dusty track we see in the location footage, then doubled on the set). This neat trick works well to introduce viewers to the world of racing via rear-projection by keeping it largely hidden in this first sequence.

The second racing sequence, singled out by the *Variety* review, was shot entirely at night at the Nutley Velodrome in New Jersey, and features the most convincing incorporation of rear-projection in the film. The “hot spot” – a bright spot in the center of the rear-projection screen, and common problem/limitation with rear-projection – here often serves to help suture the two planes of action (the flat background and the fully-fleshed out foreground of actor and car) because it reads as the glare of headlights of the cars on the track rather than a deficiency of the nascent rear-projection process.<sup>171</sup> At times this sequence recalls the dynamism of the phantom ride – particularly when it is just a shot of the race captured by another moving car on the track. It is in this sequence that the Traveler-Spectator’s point of view is aligned for the first time with racecar drivers, allowing us to look over the shoulders of the Driver-Car-Star (James Cagney) and Driver-Car-Costars (Frank McHugh and Eric Linden) at the track ahead as their cars make dramatic moves on the track. Of course it isn’t really their cars making these moves, but rather the cars the camera was mounted to that shot the footage being projected on the rear screen. Again the effect here is similar to the spectacular point of view captured by the phantom ride, only here we are literally looking over the shoulders of these stars (or, likely their body doubles). At the same time that image also reflects back a double of our own experience in the theater, looking over the shoulders of the Traveler-Spectators in front of us, on this spectacular phantom ride. Unlike the phantom ride, however, these shots are never held for long, just a scant few seconds at a time. Seen from a contemporary perspective they register as cautious and exploratory steps towards this newfound expression of automobility on screen. Perhaps when first seen they registered as exciting flashes of a future to come. In either case, the alignment is tentative, fleeting.

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<sup>171</sup> Raymond Fielding describes the hot-spot as “an obnoxious burst of light in the center of the screen,” and “an inherent characteristic of rear-projected images.” Fielding goes on to describe in greater detail: “Ordinarily, some difference in brightness between the center and edges of the screen can be tolerated before this brightness difference is perceived and photographed as a ‘hot-spot’. Photographically, the extent to which such a brightness difference will become noticeable in the finished composite positive print depends in part upon the inherent latitude and contrast of the negative stock in the camera. One’s awareness of this difference is further influenced by the nature of the background image and whether it is immobile or in motion.” (Raymond Fielding, *Techniques of Special Effects of Cinematography*, 259, 280.)

The most striking shots are the close ups of the wheels as Cagney bumps, then pushes his axle against the axle of McHugh's car, sending sparks flying. Rear-projection is used here for the background, supplying a blur of speed more than a specific time-space location. When McHugh's car bursts into flames, there is an additional layer of mattework, presenting a very dense image of automobility mayhem. The horrifying location footage shows the entire cockpit of the car devoured in flames before shooting off the track, leaving a long trail of flames behind. Echoing the opening sequence where the dust acted to stitch together foreground and background, both dust and smoke are ephemeral traces of automobility, acting to both obscure vision and fuse the visual registers of foreground and background. With this sequence, the sense of smell is added, registered palpably by the drivers covering their noses and even dropping out of the race because of the horrible odor. The blurring of senses here activates the synesthetic register of the Traveler-Spectator, acting to further obscure the distance between the time-space of the studio and location footage seen via rear-projection. The vision of death here is more than visual; it exceeds the visual register, and imbues the *mise-en-scène* with acrid odor.

The third race at the Indianapolis Motor Speedway is the setting for the climax of the film, and the first we see in broad daylight and on a paved track. Clarity here is key, with the suspense and narrative focus on one of the tires of Eddie Greer's Duesenberg that is slowly disintegrating over the course of the race. In the sequence we see repeated use of ECU's of the damaged wheel spinning – first as part of a montage to move us 150 laps forward in time (the tire seen from the side spinning), then with a shift in perspective so we again see the now-shredding tire in the foreground, and the rest of the racecars on the rear-screen behind the car. Striking compositions combining a shot of the wheel in close-up in the foreground (shot in the studio) with the vista of the road/environment (as seen via rear-projection) are used throughout the film.<sup>172</sup> Like the very first phantom rides offering a perspective on train travel that was never seen by passengers, these shots too offer a view of automobility never seen by drivers or

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<sup>172</sup> These shots anticipate Hitchcock's films like *Suspicion* (1941) and *North By Northwest* (1955), examined in the next chapter.



passengers, approximating the point of view of automobility itself, a view of the road and environment that only an automobile could see. These sorts of views would not been seen in real environments, shot on location (sans rear-projection) until the very close of the 1950s in a most unlikely vehicle: the driver's education film.<sup>173</sup>

It is only in the final race of the film that we are in an enclosed space of an automobile – in this case, a pair of ambulances carrying the injured drivers as they race to the hospital. In the first ambulance we see the Greer brothers (Cagney and Linden) in the back of an ambulance. Through a window behind them we can see the two ambulance attendants in the front seat, and behind them, the front windscreen where we see the city street they are racing through on the rear-projection screen. Here we get POV of the road ahead *and* get to see the faces of our star and co-star, which is perhaps why this is the longest sustained rear-projection sequence in the entire film – suggesting that, in essence, the new technology of rear-projection is the other real star of the film. Learning that the ambulance in front of them contains the other drivers from the race, Cagney advises the ambulance driver on how to cut him off and get to the hospital first. The closing shot of the film is a sped up phantom ride racing through the streets of Indianapolis which have trolley tracks embedded in the middle of the pavement, recalling almost verbatim *A Trip Down Market Street*. While that film offered the Traveler-Spectator of 1906 a futuristic vision of automobility in an urban environment, *A Crowd Roars* offered filmgoers of 1932 its first look at the future of automobility on screen; a vision that embedded the phantom ride into the invisible apparatus of rear-projection and placed the spectator into the car with his or her favorite celebrities at the wheel for the first time.

For nearly four decades to follow, rear-projection was the embodiment of automobility on screen, which in turn helped shaped attitudes towards driving, the car, the road and perception on the road. The Traveler-Spectator's experience of driving or riding in a car enabled by rear-projection played into the fantasy of automobility – perfect Renaissance perspective; a

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<sup>173</sup> See Chapter Three for an in-depth discussion of driver's education films.

journey centered on the vanishing point (as destination and what is left behind), safety on the road as well as a safe spatial division between us and the Other as we travel in our cozy car interiors embedded in a seemingly impervious exterior, like a nest within a shell, accessing the outside world via another kind of screen: the windscreen (or windshield).

**CHAPTER 2:  
THE TRAVELER-SPECTATOR AND THE  
POETICS OF AUTOMOBILITY (ON SCREEN AND OFF).**

*It's a combination of trying to use the motor car and yourself as one complete unit. It's really an umbilical connection between the two – the man and the machine.*

-- Steve McQueen<sup>174</sup>

*A man, an animal, an almond, all find maximum repose in a shell.*

-- Gaston Bachelard<sup>175</sup>

Examining automobility in the cinema (and the cinematic in automobility) requires a deft approach to the theoretical tangle of interrelated issues relating to the fields of Sociology, Architecture and Cinema Studies. There are simultaneously issues of spectatorship, subjectivity, surveillance, transparency, reflectivity, body image, phenomenology and psychoanalysis – all rolled into a built environment on wheels which is simultaneously inside and outside – a nest within a shell – of metal, plastic, fabric, glass and mirrors.

In this chapter we turn our attention to these elements, how they work together to create meaning in the automobile, and how, in turn, we experience automobility in the cinema. My focus here is primarily on the four basic elements of automobility that are essential in constructing the unique time-space of the Traveler-Spectator: the interior, exterior, windscreen and road. It is this unique combination of elements working together that shapes the Traveler-Spectator's perception and bodily experience of automobility, both in the car, and in the cinema.

**THE POETICS OF SPACE & THE TACTILE EYE HEAD ON**

While the cinema provided most of its earliest spectators with their first experience of automobility (and often, their first glimpse of an automobile) in the last decade of the 19<sup>th</sup> century and the first decade of the 20<sup>th</sup>, by 1930 there were more than 26 million automobiles in the U.S. and driving was literally an everyday experience for most film goers. This meant that the

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<sup>174</sup> This quote is taken from *Steve McQueen: The Man & Le Mans* (Gabriel Clarke and John McKenna, 2015), the documentary about the making of Steve McQueen's racing picture, *Le Mans* (Lee Katzin, 1971). Both films will be discussed in Chapter Four.

<sup>175</sup> Gaston Bachelard, *The Poetics of Space*, Trans. Maria Jolas (Boston: Beacon Press, 1994 [1964]), 125.

Traveler-Spectator would take his/her knowledge and experience of automobility to the cinema with them. When a character on screen got into a car, the Traveler-Spectator got in with them. In the literal sense, this was due to an increased focus on the specific mise-en-scène of an automobile's interior: the increased use of close ups and even extreme close ups of details of a car's interior – steering wheel, dashboard, pedals, gearbox, glovebox, throttle, emergency brakes. But beyond that, the introduction of point-of-view shots acted to align the traveler on screen with the Traveler-Spectator watching the film, largely enabled by the embrace of rear-projection after 1930. The combination of these elements resulted in an increasingly tactile experience of automobility on screen. By 1930, it is also due to the experiences the Traveler-Spectator had in his/her own car that they would then take to the cinema with them, which “come(s) to involve the entire body and to register as movement, comportment, tension, internal rhythms, and a full-bodied engagement with the materiality of the world.”<sup>176</sup> This description comes from Jennifer Barker's remarkable book on phenomenological film theory, *The Tactile Eye*, and although her focus is on the haptic touch of cinema, investigating “particular structures of human touch [that] correspond to particular structures of cinematic experience,”<sup>177</sup> it is equally applicable here. Only for this study, I am interested in how the representation of automobility on screen touches us, and in turn, how our interactions with our own automobiles then affect how we perceive and engage with the automobiles we see on screen. Barker lays out three ways the cinema is experienced tactilely in the introduction to her book:

Cinematic tactility, then, is a general attitude toward the cinema that the human body enacts in particular ways: haptically, at the tender surface of the body; kinaesthetically and muscularly, in the middle dimension of muscles, tendons, and bones that reach toward and through cinematic space; and viscerally, in the murky recesses of the body, where heart, lungs, pulsing fluids, and firing synapses receive, respond to, and reenact the rhythms of cinema.<sup>178</sup>

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<sup>176</sup> Jennifer Barker, *The Tactile Eye: Touch and the Cinematic Experience* (Berkeley: University of California Press, 2009), 2.

<sup>177</sup> Jennifer Barker, *The Tactile Eye*, 2.

<sup>178</sup> Jennifer Barker, *The Tactile Eye*, 3.

For Barker, it is only at the muscular level that issues of automobility coincide with the lived body's experience of cinema, citing the chase scenes involving a muscle car driven by Steve McQueen in *Bullitt* (Peter Yates, 1968): "In chase films, the film is to our bodies like car is to driver: we live through it vicariously, allowing it to shape our own bodily image, it becomes our proxy, our vehicle for movement and action, as well as the thing that provides us safehaven from which to experience real danger."<sup>179</sup> While I agree that chase sequences like the one in *Bullitt* (which will be examined in Chapter Four) engage our senses in very specific ways, I would argue that an embodied experience of automobility on screen is only a question of touch. All that is required to activate this embodied experience is for us to crawl into an automobile with a character on screen, to become conjoined with both the automobile and the cinema as a Traveler-Spectator. Suddenly it is our foot on the gas or brakes, our hands at the wheel, or our own backs sinking into the seat, as our experience of automobility at the cinema enmeshes with the sensuality of our own remembered experience of automobility.

No matter where we are inside the car – at the wheel, in the passenger seat, or one of the seats behind that – our experience of the automobile is a cumulative one. This sensation is both a product of lived experience and bodily memory, and this is part of our experience of automobility. Phenomenologist Maurice Merleau-Ponty refers to this as *habit*, explaining that habituating oneself to an automobile (or a hat or cane) "is to take up residence in them, or inversely to make them participate within the voluminosity of one's own body. Habit expresses the power we have of dilating our being in the world, or of altering our existence through incorporating new instruments."<sup>180</sup> In the case of the automobile, Merleau-Ponty explains:

If I possess the habit of driving a car, then I enter into a lane and see that 'I can pass' without comparing the width of the lane to that of the fender, just as I go through the door without comparing the width of the door to that of my body. The hat and the automobile have ceased to be objects whose size and volume would be determined through a comparison with other objects. They have become voluminous powers and the necessity of a free space.<sup>181</sup>

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<sup>179</sup> Jennifer Barker, *The Tactile Eye*, 110.

<sup>180</sup> Maurice Merleau-Ponty, *Phenomenology of Perception*, Trans. Donald A. Landes (New York: Routledge, 2012 [1945]), 144-145.

Even more applicable here than Merleau-Ponty's description of the car body as extension of our own (as in the case of Tim Dant's conception of the Driver-Car), is his example of the trained organist sitting down at an unfamiliar keyboard. Like the driver at the wheel, the organist "sits on the bench, engages the pedals, and pulls out the stops, he sizes up the instrument with his body, he incorporates its directions and dimensions, and he settles into the organ as one settles into a house."<sup>182</sup> Merleau-Ponty goes on to specify:

The entire problem of the habit here is to determine how the musical signification of the gesture can be condensed into a certain locality to the extent that, by entirely giving himself over to the music, the organist reaches for precisely the stops and the pedals that will actualize it. Of course, the body is eminently an expressive space. No sooner have I formed the desire to take hold of an object than already, at a point in space that I was thinking about, my hand as that power for grasping rises us toward the object.<sup>183</sup>

The traveler, like Merleau-Ponty's organist, activates her or his body-memory as soon as s/he gets into the car – adjusting the seat, visor, vents, seatbelt, stereo, etc. – in essence, interfacing with the car's various options, making the nest our own. Another similar example from Merleau-Ponty, is seated at a different kind of keyboard. He explains: "When the typist who executes the necessary movements on the keyboard, these movements are guided by an intention, but this intention does not posit the keys as objective locations. The subject who learns to type literally incorporates the space of the keyboard into his bodily space."<sup>184</sup> Like both the organist and the typist, the traveler incorporates the nest of the automobile and all its options of comfort and power into his or her bodily space, as either driver or passenger. Just as surely, the Traveler-Spectator takes his or her habit with them to the cinema, allowing them access into the automobile interiors they see on screen.

## THE INTERIOR AND INTERIORITY OF AUTOMOBILITY

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<sup>181</sup> Maurice Merleau-Ponty, *Phenomenology of Perception* (2012), 144.

<sup>182</sup> Maurice Merleau-Ponty, *Phenomenology of Perception* (2012), 146.

<sup>183</sup> Maurice Merleau-Ponty, *Phenomenology of Perception* (2012), 147.

<sup>184</sup> Maurice Merleau-Ponty, *Phenomenology of Perception* (2012), 146.

In the ongoing discussion of automobility within the field of Sociology, the interior of the car is often referred to as the “cockpit.” The word originated as a sailing term in the 16<sup>th</sup> century, and in the nautical sense was a reference for the midshipmen’s compartment below decks. But the word is more commonly associated with air travel, indicating the flight deck, or front of an airplane where the pilots and navigator are seated. The first airplane with an enclosed cabin appeared in 1912 on the Avro Type F, but it wasn’t until the following decade that many aircraft manufacturers began experimenting with closed cockpits, and wasn’t until the 1930s that they became more common. Like the automobile, the challenge was creating an alternative to glass that was both safe and light. For automotive engineers, the answer came in 1933 with the invention of Perspex in Germany, a (polymethyl methacrylate) known in the U.S. as “plexiglass”.

The first enclosed automobile appeared in 1898 in the form of the Winton Automobile, created by one of the earliest automobile manufacturers, inventor Alexander Winton, a bicycle inventor, salesman and repairman. The 1906 Cadillac was the first mass-produced automobile with an enclosed interior. But it wasn’t until 1928, with the Essex, manufactured by the Hudson Motor Company in Detroit, that the first truly affordable automobile with an enclosed interior hit the streets. While Ford’s Model-T had introduced the revolutionary concept that the automobile was something for truly everyone<sup>185</sup>, it is only with the Essex, that the idea of the sealed, separate interior, was as vital a right as transportation by automobile itself. This, really is the birth of modern automobility. At the core of that notion is the cockpit – which is both the command system of the car, but also an extension of the comforts and safety of your own home. It is really only with the standardization of the windshield that the notion of the cockpit of the car was formed. Adding windows on the other three sides ensured that your automobile now had a distinct interior and exterior. When you closed the doors, and rolled the windows up, everything changed. Here, was a privacy of sorts. Of atmosphere and sound. Also, of privacy.

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<sup>185</sup> The revolutionary part was the utilitarian pricing – making the automobile truly affordable for almost anyone. See Chapter One.

Even though the top third of passengers' torsos were viewable from outside, there was for the first time a certain sense of security being *within* one's automobile.<sup>186</sup>

Urban planner and architectural historian Drummond Buckley compares the safe space of the interior of an automobile to the similarly liminal space the front porch offered until the early part of the twentieth century – a space, he goes on to argue, is ultimately eliminated by and replaced with the automobile.

The car offered a place to sit, socialize, and watch the passing scenery. [...] Because it was also a form of transport, the automobile offered a new experience of privacy to the middle class. It allowed its owners to extend their semi-private domain beyond the house to wherever the road might lead, which put less pressure on the actual house to provide a transition zone between public and private space.<sup>187</sup>

In his short essay, Buckley describes a number of changes to the conception of the home that result from the worldwide embrace of the automobile in the first half of the twentieth century. The garage, which, when originally introduced was located somewhere behind the house and out of sight, eventually moved to the forefront of the suburban house, not only providing shelter for the automobile, but “replaced the front door as the symbolic and functional entrance.”<sup>188</sup> Seen in this way, the automobile is revealed as a mobile extension of the home itself; with the garage connected to the house, separated only by a door, it was like the traveler never had to leave home at all. As architectural historian Folke Kihlstedt points out, “By 1930, barbeques and other roadside food stands would provide a meal to customers who never even stepped out of their car,” and with the opening of the first drive-in movie theater in 1932, you wouldn't even have to leave your home (on wheels) to go to the movies!<sup>189</sup> Meanwhile, the increasing presence of

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<sup>186</sup> This begs the question that will be investigated in the last chapter – if this is why the smart phone is now replacing the automobile as society's preferred vehicle (of both travel and fantasy)? Because unlike the automobile, the internet enabled/accessed via the phone does invite participation; in fact, it demands it. So, while the automobile and its relation to cinema has helped us all develop our shells – now like turtles or crustaceans, carrying them around with us on our backs, enveloping us at all times, what once required a windshield to access and insulate us, is now shrunk down to a piece of glass no larger than a rearview mirror.

<sup>187</sup> Drummond Buckley, “A Garage in the House,” *The Car and the City: The Automobile, the Built Environment and Daily Urban Life*, Ed. Martin Wachs and Margaret Crawford (Ann Arbor, MI: University of Michigan Press, 1992), 124.

<sup>188</sup> Drummond Buckley, “A Garage in the House,” 124.

<sup>189</sup> Folke T. Kihlstedt, “The Automobile and the Transformation of the American House, 1910-1935,” *The Automobile and American Culture*, 162. The ramifications of the drive-in movie theater will be discussed in the Conclusion of this book.



automobiles on city streets, and resulting increase in dust and pollution meant that the front porch soon ceased to be the preferred liminal space of the home. Before the automobile, the front porch was a safe space simultaneously inside and outside, and a highly social place where regular interactions were common with people passing by on foot. Soon, the front porch disappeared, replaced by a back porch which could be an entirely private space; so much so that it was often referred to as “the outside living room”.<sup>190</sup> As a result, it is the space of the automobile that becomes the preferred liminal space, a seemingly secure nest wrapped in a protective shell that provided a virtual living room on wheels.

We see this on screen as early as 1934 in Frank Capra’s classic *It Happened One Night* in a series of vehicles that Clark Gable’s and Claudette Colbert’s characters catch, chase and commandeer. In his definitive study of the road movie, *Driving Visions: Exploring the Road Movie*, David Laderman names *It Happened One Night* as a film that helps create the template for the road movie that eventually develops in the 1960s. But while Laderman insists that “the road movie appears as a dynamic manifestation of American society’s fascination with the road,” I would argue that it is actually a fascination with automobility, and, more generally, with mobility itself.<sup>191</sup> Certainly, this seems the case in *It Happened One Night*, where, over the course of the film, we see a spectrum of travel means available in the 1930s: yacht, bus, train, truck, limousine, private plane, sports car, autogyro (early incarnation of the helicopter) and the ever-reliable Model T. For the purposes of Laderman’s book, driving “designates the road movie’s particular motion and motivation,” and it is equally applicable to whatever motorized vehicle they choose to travel on or in; “If not literally driving, they ‘drive’ by hitting the road.”<sup>192</sup>

Like other proto-road movies of the 1930s and 1940s – *I Am a Fugitive from a Chain Gang* (Mervyn LeRoy, 1932), *Wild Boys of the Road* (William Wellman, 1933), *You Only Live*

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<sup>190</sup> Drummond Buckley, “A Garage in the House,” 129.

<sup>191</sup> David Laderman, *Driving Visions: Exploring the Road Movie* (Austin, TX: University of Texas Press, 2002), 3. See Chapter Four for an in-depth analysis of the road movies of the 1960s and 1970s.

<sup>192</sup> David Laderman, *Driving Visions*, 14.

*Once* (Fritz Lang, 1937), *The Grapes of Wrath* (John Ford, 1940), *They Drive by Night* (Raoul Walsh, 1940), *Sullivan's Travels* (Preston Sturges, 1942) – *It Happened One Night* uses automobility to critique the socio-economic crisis of The Great Depression. In the case of the Capra film, each new form of mobilized transportation comes with its own distinct set of critiques, both of the mechanisms of mobility itself, and the societal structures attached to them. When spoiled debutante Ellie Andrews (Claudette Colbert) jumps off her father's yacht and swims away, signaling the start of her travel and the narrative of the film, she is abandoning both wealth and the patriarchal controls the yacht acts to reinforce. The journey of Peter Warne (Clark Gable) after he is fired from his job and boards the bus at the station with a tongue-in-cheek send off by his fellow reporters, "Your chariot awaiteth." The sardonic but gleeful tone belies the fact that he now has no job, no means of personal transportation and must be part of the communal system of busing. Ellie Andrews, on the other hand, rejects the forms of private and personal mobility (represented by her father's yacht, private plane and limousine), for the anonymity that a bus can provide. Mobility for the masses is her mask (or, at least, so she thinks). But it is her unfamiliarity to the rules and rites of public transportation that gives her away to the reporter's eye of Peter Warne, which, in turn, reveals to the viewer that this communal form of transportation was the norm for the middle class of the 1930s.

As we see on screen, the space of the bus in 1934 is, revealingly, very similar to what the front porch had offered less than a decade earlier. Before the Depression, an encounter between neighbors often meant one person or group on foot would come to a stop, speaking to their neighbors on their front porch – a conversation held across two different environments – indoors and outdoors. In the Depression we now see a community on wheels, displaced and dislocated, but bonding together through conversation and song in the communal space of the bus, safely sealed inside a seemingly stationary space while the landscape moves past outside.

As participants of the mobilized community of the 1930s, Gable and Colbert's characters are also granted access to the 'home away from home' for the night – the "auto camp" -- also

commonly referred to as a “motor court.” This precursor to both the motel and the RV sprung up across the country during the Great Depression. The name alone reveals the transformation of community and neighborhoods in this period, all re-crafted and re-designed to accommodate the needs of automobility. It is here we get another glimpse of Depression-era conditions for the displaced and dislocated, albeit under sunny skies, in a classic Capra fusion of social commentary and hopeful idealism. The boundaries of the camp are defined by a singular extended traveling shot following Colbert’s character from their cabin to the public showers on the opposite end of the camp, giving us an idea of this city/community-in-miniature. Even though it lacks sidewalks, streets or shops, there is a car parked outside every cabin, many of which are being worked on by their male owners, while the women stand in line for the showers. Lacking garages, there is a symbiotic relationship established between the cabins and the cars parked just outside. Automobility is simultaneously the lifeline that keeps the auto camp alive, and the families staying there who, we can assume, move from one camp to the next, as we see Peter Warne and Elie Andrews do over the course of the film. The communal existence of the auto camp is very different than the communal atmosphere of the bus. The auto camp provides an extension of the privacy that automobility affords; interaction with fellow travelers is kept to a minimum, happening only at the showers, or the diners or gas stations that commonly accompanied auto camps of that era. (By the late 1930s interactions with fellow travelers were even more minimized, with cabins coming equipped with both kitchenettes and private bathrooms.<sup>193</sup>) The communal experience of traveling by bus, on the other hand, meant extended exposure in a shared space, which the pair reject shortly after being exposed to the sort of privacy automobility offers. Fearing discovery by the shifty Shipley (Roscoe Karns), the couple take to the road on foot. While Gable’s character is the one giving lessons on hitchhiking to the assumedly clueless Colbert, she is the one who finally convinces a car to stop, and not by using a thumb...but a timely reveal of her legs. Gable is the one, however, who ultimately commandeers

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<sup>193</sup> For an excellent history of autocamping, from roadside tents in the teens to the birth of the motel in the 1940s, see Warren Belasco, “Commercialized Nostalgia: The Origins of the Roadside Strip,” *The Automobile and American Culture*, Ed. David L. Lewis and Laurence Goldstein (Ann Arbor, MI: University of Michigan Press, 1983), 105-122.

the car from its original driver (Alan Hale, Sr.) after he tries to drive away with their luggage. One black eye later it is Gable who is behind the wheel picking up Colbert and continuing on their journey via automobility.

Structurally speaking, the vehicle they take off in speaks strikingly to the situation of the pair, not yet a couple. The Ford Model T was by then well known as the ultimate utilitarian expression of automobility and car of the everyman, in other words, a perfect fit for a Capra protagonist. Lacking an enclosed interior, everything is literally out in the open, on display, with nothing to hide – a striking counterpoint to the Walls of Jericho that Warne constructs in the private space of the cabin they share for the night (and will construct again at the next auto court). The interior/exterior of the Model T is a hybrid space that separates them from the road, literally elevating them by the height of the spinning tires, but also more significantly, to the ranks of those with access to a privatized, self-propelled version of transportation via automobility. With this access to automobility, the couple are easily able to convince the old man who runs the next auto court they stop at to let them stay without paying in advance. Even a Model T speaks to the reliability of this young couple on the road (even if the old man's wife argues otherwise). Access to automobility also means Peter Warne can sneak out of the auto park in the middle of the night, and go back to the newspaper and get his job back. Later Elie's escape route from the wedding in mid-ceremony is the car that her rich father (played by Capra regular, Walter Connolly) has waiting for her. In the last shot of the film, we see the Ford Model T parked outside yet another auto camp cabin as we (finally) hear the horns blow, signaling the fall of the Wall of Jericho and the marriage-endorsed sexual freedom that follows.

Over the course of the film we see a direct relation of upward mobility to automobility. As soon as Peter Warne and Elie Andrews shift from the communal travel to the automobile, their characters also transform. No longer passengers, they transform into drivers, and the film becomes similarly driven by their motivations. Even in the always open space of the Ford Model T, their life together becomes a separate time-space from all they encounter on the road,

facilitating the growing bond between them, which they ultimately consummate in marriage (with the Model T parked just outside the window).

In *The Grapes of Wrath*, John Ford's 1940 adaptation of John Steinbeck's classic novel, published just a year earlier, we accompany the Joad family on a trip to the promised land of California. Although set in virtually the same period as *It Happened One Night*, here we see a much darker and more accurate vision of the country in the Great Depression. In both films we see a country that is connected more than anything else by the roads – and the access to automobility necessary to travel on them. Unlike *It Happened One Night*, these are characters who are forced to live a life on the road. They have no choice. For a migrant family like the Joads, the home is necessarily on wheels; it goes to where the work is.

In the beginning of the film we see the Joad family transfer all of their belongings from the home they are being evicted from into their Hudson Super Six Sedan, transforming the automobile into something appearing more like a truck, and functioning very literally as their new home on wheels. Once on the road, the family is both a unit of community and workforce. But this new way of life for the recently evicted Joad family is one that only the younger prove able to adapt to, and along the way both grandparents die on the road, and are buried beside it. As Joseph Interrante explains in his essay, “The Road to Autopia: The Automobile and the Spatial Transformation of American Culture,” “A migrant family’s car was not only a means of consumption, it was also the necessary basis for the migrant household’s survival as a unit. As migrant labor reorganized around automobile movement, it became necessary to use a car to find work and reach that work as a family unit. The automobile thus dominated the lives of migrant families in a unique and deliberate way.”<sup>194</sup> For the Joads this means multipurposing the family vehicle as both a public and private space. As a public space, their vehicle is the continued target of critiques and jabs, ridiculed by many they meet on the road; the basis for a cultural and class-based judgment of the entire family by others. Words to describe the family

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<sup>194</sup> Joseph Interrante, “The Road to Autopia: The Automobile and the Spatial Transformation of American Culture,” *The Automobile and American Culture*, Ed. David L. Lewis and Lawrence Goldstein (Ann Arbor, MI: University of Michigan Press, 1983), 103.

vehicle like “jalopy,” “wreck,” “heap,” “junk” are meant just as surely to reflect on the kind of people who would travel in it. This is spelled out deliberately by two gas station attendants in neat, white, pressed uniforms, passing judgment on the family after they head off into the desert. “Hard-looking outfit,” one man quips. “Them Oakies got no sense and no feeling. They ain’t human, no human being would live the way they do. Human being couldn’t stand to be so miserable,” the other responds. “Just don’t know any better, I guess,” the first man agrees.

At the same time, their access to automobility is also what provides crucial privacy for the family, allowing them to stash Tom away in a secret compartment when the authorities are looking for him, or serving as a hearse to transport the grandmother across state lines, hiding in plain sight for the authorities who check their vehicle before entering California. It is also what allows them access to the autocamps we see populating the roadside of America in this period. The auto camps the Joad family stays at start at fifty cents a night, and as we saw in *It Happened One Night* allows them into a communal space just off the road. But instead of cabins and privacy, we see a collection of tents set up in the woods. The camp office is the only building we see, offering the traveling men a porch to sit on and exchange stories. As we quickly discover not all roads lead West. Some of these men have already been there, experienced tragedy, and are now heading back East, hoping to find better. While the Joads remain skeptical of the man’s claims, and defensive about their hopes, Tom responds: “He’s telling the truth...the truth for him. He wasn’t making it up. But it is the truth for us? I don’t know...”

Along the road the Joad family is greeted by police officers, border patrols, or groups of armed men insisting or threatening them to keep moving. For much of the movie it seems that the family vehicle is the only place they can live. In the first town they reach, the cop (Ward Bond, key member of Ford’s stock cast) warns them they can’t stay in town for the night or he will have to arrest them; that the only place for them is the autocamp outside of town. Just outside of town the sign we see for it reads “Transient Camp,” and when we arrive we see it is a shanty town straight out of the WPA photographs from the period. Here, our introduction is via

automobility and slight slow motion as the Traveler-Spectator takes a phantom ride with the Joad family through a space that looks haunted even in broad daylight. The scene remains one of the most unnerving of the entire film, and one of the most unsettling in this period of cinema, thanks to cinematographer Gregg Toland's virtual replication of the WPA photographs of Dorothea Lange, Walker Evans and Arthur Rothstein.

The Joad family's entry into their final destination of California remains in stark contrast to their other stopping points along the way. Here, our introduction to California is signaled when the family truck pulls over to the side of the road before crossing the Colorado River and the family gets out to comment on its beauty just in the distance. This is accomplished via a singular side shot of the family vehicle on location. But when the family get out of the truck to inspect the vista, what we now see is the group staring at a transparency as projected on a rear-screen: a still image of a lush California landscape of green, mountains and a lake running through the middle. "There she is folks, the land of milk and honey...California," Tom's father declares. The slippage here from actuality back to soundstage is telling, as the family is still proceeding based on the fantasy they have constructed of this 'land of milk and honey.' Rear-projection is key, too, in representing the foreign unreality of the Mojave Desert as the Joad family crosses it, seen reflected in the windscreen of the Joad vehicle, in effect, superimposed over the unsure, disbelieving faces of Tom, his father and brother in the front seat. This is a unique use of rear-projection, aligning its vision of the desert roadscape with the windscreen of the vehicle itself. The resulting portrayal of automobility is stunningly Expressionistic, reflecting the travelers' mental and emotional experience of moving through an alien landscape superimposed over the eerie phantom ride. Without recognizing the role of rear-projection, David Laderman describes this sequence as a play "on mobility as reflection," where "we see the characters framed by moving screens within the framed screen of the film itself, imagery suggesting how the characters (and we the audience) become integrated into the moving vehicle

(and the moving image).”<sup>195</sup> For Tom Joad, it is reflection that leads to revelation. While Laderman limits his focus to “the sense of road travel as a means of revelation,”<sup>196</sup> I would argue that it is only through access to automobility that Tom Joad will be able to cross the great distances that he describes to his mother in their final scene together: “I’ll be all around in the dark. I’ll be everywhere. Wherever you can look, wherever there’s a fight, so hungry people can eat, I’ll be there. Wherever there’s a cop beatin’ up a guy, I’ll be there. I’ll be in the way guys yell when they’re mad. I’ll be in the way kids laugh when they’re hungry and they know supper’s ready, and when the people are eatin’ the stuff they raise and livin’ in the houses they build, I’ll be there, too.” Only automobility can cover that much ground, and provide that level of anonymity, thanks to the unique configuration of interior and exterior that a car affords. In *The Grapes of Wrath* we see some of the basic tenets for the road movie of the 1960s being established – aligning an anti-authoritarian anti-hero figure with automobility itself – a blueprint that would be followed thirty years later in *Easy Rider* starring Henry Fonda’s son, Peter Fonda, and the cycle of road movies that followed in late 1960s and early 1970s (which will be discussed at length in Chapter Four).

In *Sullivan’s Travels* (Preston Sturges, 1942) we see Hollywood reflecting on the Depression from an even greater distance, even as the nation would soon be preparing to go to war in Europe. Fusing elements of *It Happened One Night* and *The Grapes of Wrath*, Preston Sturges manages to both romanticize life on the road and critique it over the course of the film, offering a rare foray into the socially-conscious comedy for the director. Like Elie Andrews in the Capra film, affluent film director John L. Sullivan (Joel McCrea), casts himself into the society of the disenfranchised that populate the roads, disguised as a tramp, to investigate poverty first-hand for what he intends to be his first-ever “message” film.<sup>197</sup> While the film’s protagonist, John

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<sup>195</sup> David Laderman, *Driving Visions: Exploring the Road Movie*, 30.

<sup>196</sup> David Laderman, *Driving Visions: Exploring the Road Movie*, 29.

<sup>197</sup> The connection to Capra is explicit even within the film. When chastised for wanting to make a social message picture by his producers, Sullivan retorts, “What’s the matter with Capra?”



Sullivan, is an amalgam of John Steinbeck, Sinclair Lewis and Upton Sinclair, the film's title is a direct reference to Jonathan Swift's classic 1726 novel *Gulliver's Travels*. Like the original novel, which was a satire of the then-popular literary genre of traveler's tales, critiquing both society and government and the role the individual played in them, the film playfully critiques the same issues. In the film we are presented with a vision of America rarely seen on the screen in that era, constantly mobile, moved or being moved from one place to the next, like the Joads and their ilk in *The Grapes of Wrath*. Here, we get a virtual repeat of the sequence in *The Grapes of Wrath* when Sullivan and The Girl (Veronica Lake) come across their first homeless encampment; the extended sequence is strikingly free of dialogue as this shantytown is also accessed via a phantom ride through it for the Traveler-Spectator, even though McCrea and Lake are on foot. While in *The Grapes of Wrath*, the Joads' vehicle guarantees them a position somewhat above what they see there (both literally and figuratively), in *Sullivan's Travels*, it is only the Traveler-Spectator who is aligned with the perspective of automobility, granting us a certain distance from and over what we see.

In *Sullivan's Travels*, automobility is already a measure of the elite. For the poor, it can only be accessed by hitchhiking; relying on the charity of those with access to automobility. And the longer you are on the road, the less likely that becomes. For the lower classes unable to hitch a ride, the focus becomes the train – which, in the film is associated with the transport of freight – and their illicit cargo: the hobos. This is a far cry from the preferred mode of travel it offered even twenty years earlier. To the tramps and hobos on the road, the interior of the car was an almost impossible distance away, sealed in an impervious shell that signaled denial of both their autonomy and access to society. For the hobo, the home on the road was no home at all.

### **THE NEST IN THE SHELL: OUR HOME AWAY FROM HOUSE**

For French phenomenologist Gaston Bachelard, writing in 1958, the house was still the home, and the preeminent safe space that both embodied dreams and enabled daydreaming. In

*The Poetics of Space*, he declares the “house image would appear to have become the topography of our intimate being.”<sup>198</sup> But Roland Barthes, writing just five years later, declares, “The car is a house.”<sup>199</sup> For Barthes, the car was a reflection of self<sup>200</sup>, just as surely as Bachelard described of the house: “A house constitutes a body of images that give mankind proofs or illusions of stability.”<sup>201</sup> For Bachelard, this body of images included the attic, closets, drawers, even the very verticality of the house. “Verticality is ensured by the polarity of cellar and attic, the marks of which are so deep that, in a way, they open up two very different perspectives for a phenomenology of the imagination,” he explains.<sup>202</sup> But so too does the car reflect on our stability – either solid or illusory, moving or still. The seats, steering wheel, glove compartment, trunk, roof, mats; even the very vertical organization of the automobile speaks to us and reflects on our being. What Bachelard explains with regard to the house as home is equally true of the automobile, where so many feel at home: “A roof tells its *raison d’être* right away: it gives mankind shelter from the rain and sun he fears. [...] Up near the roof all our thoughts are clear. [...] As for the cellar [...] it is first and foremost the *dark entity* of the house, the one that partakes of subterranean forces. When we dream there, we are in harmony with the irrationality of the depths.”<sup>203</sup> For the automobile, of course, the polarity of cellar and roof instead becomes the juxtaposition of the wheels and the roof and their relationship to what lies beyond the automobile, above and below – the road and the sky. The boundaries of the automobile, though blurred by perception enabled by the windscreen and windows, still have distinct categories of

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<sup>198</sup> Gaston Bachelard, *The Poetics of Space*, xxxii.

<sup>199</sup> Roland Barthes, “Mythologie de l’automobile: la voiture projection de l’ego,” *Réalités* 213 (October, 1963), 96. Or, in its original French, “L’auto est une maison.” This was equally a commentary on design, and the increase in drive time in France in that period, but just as surely on the comforts of the automobile, and the centrality of its place in culture. In France, of course, this is in this period when two thirds of the population of Paris moves out of the city centre and into the new suburbs created at the outer fringes. By this point in the United States over one-third of the population were living in suburbs, and driving had been one of the nation’s favorite pastimes for decades. It was a place for the individual to be alone. A place for a husband or a wife to escape (either with or away from each other). A place for a family to be all together, no matter the destination. One of the few places in this country at least, where everyone could at least potentially be treated as equals.

<sup>200</sup> The title of Barthes’ 1963 article translates in English as “The Car As Ego Projection.”

<sup>201</sup> Gaston Bachelard, *The Poetics of Space*, 17.

<sup>202</sup> Gaston Bachelard, *The Poetics of Space*, 17.

<sup>203</sup> Gaston Bachelard, *The Poetics of Space*, 18.

interior and exterior with regards to embodiment, same as that of those of the house. As Bachelard describes of the house is also true of the automobile: on the outside, there is the shell; on the inside, there is the nest.

In *The Poetics of Space*, Gaston Bachelard returns repeatedly to the nest as a model for our own homes, which is an equally applicable model to consider when interrogating the interior space of the automobile. Bachelard's goes to great length examining a work from the 19<sup>th</sup> century devoted to "bird architecture" – Jules Michelet's 1858 book, *L'oiseau* – applying Michelet's insights regarding the phenomenological aspects of a bird's nest to a human being's home. Bachelard starts with its construction, and Michelet's insight that "in reality [...], a bird's tool is its own body," which in turn, is key to its comfort.<sup>204</sup> But so too is that comfort built from discomfort. Here, Bachelard quotes Michelet: "The house is a bird's very person; it is its form and its most immediate effort, I shall even say, its suffering."<sup>205</sup> Bachelard then goes on to point out that a nest is "a house built by and for the body, taking form from the inside, like a shell, in an intimacy that works physically. The form of the nest is commanded from the inside."<sup>206</sup>

Similarly, the car is our command center and our refuge where we can huddle, snug, hiding away, concealed. But at the same time, we are held in place, held tight in the case of any sudden moves, held in place for all to see, passing by (from the shoulders up, anyway, and depending on the tint of your windows, the elevation of the road, etc.). The car offers us a degree of invisibility (and anonymity) and nearly three-hundred-and-sixty degrees of potential view. Offering stillness and movement, safety and danger, the space of the automobile is in consistent flux, constant contradiction. With each use of the muscle, our human strength is multiplied by the exoskeleton of the automobile. Apply a few degrees of pressure to your right foot, and your velocity increases from zero to sixty MPH in a manner of seconds. A subtle shift in ankle flexibility and downward pressure finds us careening to a halt in half the time. Consider the

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<sup>204</sup> Gaston Bachelard, *The Poetics of Space*, 100.

<sup>205</sup> Gaston Bachelard, *The Poetics of Space*, 101.

<sup>206</sup> Gaston Bachelard, *The Poetics of Space*, 101.

empowerment of just these two basic proponents of propulsion in automobility, then consider the psychology this engenders: super-speed and invulnerability, encased in metal.

Of course this is all assuming you are behind the wheel, at the helm, the driver, the pilot. If you're a passenger, then the goal is comfort, and therein lies another form of empowerment. Instead of pedals you have legroom. Room to stretch out. Relax. Do whatever you want as you are driven. The balance of power gives way as easily as that. Wherever we are seated in the nest, the interior of the car provides a space for our interiority, in effect, to stretch out. The nest of the automobile can be a place for thought and reflection, even as your body pilots you through your environment thanks to the habit that Merleau-Ponty described. In the cinema, too, the interior of an automobile is a common location for characters to reflect, often giving the characters and the Traveler-Spectator a break from the action, even as the narrative continues its inexorable forward progress.

In *Psycho* (Alfred Hitchcock, 1960), we are offered one of the cinema's most sustained examples of this connection between the car interior and interiority. Here, we see an entire reel (almost fourteen minutes) of screen time devoted to Marion Crane's (Janet Leigh) relationship with automobility. Fleeing the city of Phoenix, Arizona with \$40,000 stolen from her job, Marion seems sealed within the shell of her car. Hitchcock's preference of a studio setting and use of rear-projection acts to heighten the sensation of separation she has from the outside world. On the soundtrack we hear the voices in her head play out like an interior monologue she is assembling from the voices of the men in her life. As each voice speaks to a potential version of her future, we see two alternating shots of her in the car. The first shot is of her at the wheel in close up; behind her we see a phantom ride through Phoenix streets in rear-projection. The reverse shot features a POV from the driver's seat, so we see the steering wheel and speedometer at the bottom of the screen, and the phantom ride through the street ahead framed by the sloping frame of the front windscreen, again via rear-projection. The voiceover is interrupted at the first stoplight when a group of people pass in front of the car – including her boss (Vaughn

Taylor), who initially smiles as he passes, then pauses on the street corner, now eyeing her with suspicion. Seen from Marion's POV through the windshield the sense of unreality here is heightened: first, because of the unsuspected encounter at a stop light with precisely the person she is fleeing, and secondly, because of the use of rear-projection to portray the street view behind him. While the hood of her car occupies the same real space as her boss – and the shiny metal of the hood reflects a ghostly double of him, the urban environment, seen in rear-projection, is flat and unreal. So, while the sense of automobility remains solid and real around her and in front of us, in the nest in the shell with her, the road ahead and all its potential locations become unreal; the journey ahead, her escape, seems fleeting and less likely.

What follows is an extended sequence centered on Marion's relationship to automobility that stretches suspense and paranoia largely thanks to the sheer amount of screen time it takes up. While highly stylized, featuring extensive use of rear-projection, the experience of automobility is frustratingly real, with everything taking longer than you would expect: from travel time to the time it takes to trade in her old car for a new one (all under the watchful eye of the same police officer who found her sleeping on the side of the road the night before). In the final minutes of the inexorable sequence, we are with Marion in her new car, even closer on her face in the dark interior of the car as night falls. The reverse shot now offers us a phantom ride closer to the surface of the road, from the hood of the car, rather than inside the car with her. The voices are louder now, crowding the soundtrack with their opinions. But ultimately it is nature – in the form of a downpour – that conspires to alter her trajectory off the main highway and into the parking lot of the Bates Motel. The downpour eventually drowns out the voices Marion hears in her head. The literal separation of the elements is striking here, with the "rain" happening on the soundstage, adding a layer of palpable reality and obscuring our phantom ride through a rainy night on the rear-projection screen. In the reverse shot, which is the tightest close up of Marion in the entire film, framed chin to forehead, the view through the rear windshield is now a downpour of diffuse lights and dark shadows in monochrome.

We enter Norman's domain as Traveler-Spectators. Our introduction to the famous Bates Motel is a phantom ride viewed through a windscreen in a downpour. Our first glimpse is the glow of the sign in the distance, then shots of the neon sign growing larger in our view, eventually filling the screen. We survey the motel in a travelling shot as we move closer, and even our introduction to the infamous house overlooking it is in a shot which features Marion's Ford in the foreground, the hotel in the middle and the house looking down on both. The car's horn is the only method of communication that can reach the occupants of the house over the din of the rain. It is only once she leaves the security of her nest within a shell, opting to stay the night at the Bates Motel that her unsafety is certain. While the automobile's nest within a shell offered Marion safety on the side of the road the night before, with her move into the motel she is outside of its protection, sacrificing both privacy and safety, and ultimately, her life.

Of course Norman Bates' (Anthony Perkins) preferred method of body disposal also figures automobility at its center. Reconfigured for his purposes, Marion's car later serves as a larger than necessary coffin which is then sunk in the swamps behind the hotel. This too speaks to the perception of the shell of the automobile as impervious – as it is now protecting the dead body of Marion Crane, preventing its discovery, literally sealing it away from the outside world. With it, Marion's interiority remains preserved, her secrets, literally buried with her – both in her mind, and in the form of the money she stole which initiated the journey, her turn to automobility as escape, and the film's narrative itself.

### **THE SHELL AROUND THE NEST: KEEPING THE EXTERIOR OUTSIDE**

Don't forget the mollusks! (Not to mention clams and crustaceans, shelled cephalopods, snails, and possibly turtles or armadillos.) Bachelard would surely want to remind us of all these as they provide the models for our own houses. Just as certainly, those creatures and their shells are also key to our consideration of the automotive exterior as a shell. Bachelard considered this

comparison with the house as home and Victor Hugo in his most famous creation and his home in *The Hunchback of Notre Dame*.

In one short sentence, Victor Hugo associates the images and beings of the function of inhabiting. For Quasimodo, he says, the cathedral had been successively 'egg, nest, house, country and universe.' One might almost say that he had espoused its form the way a snail does the form of its shell. It was his home, his hole, his envelope...He adhered to it, as it were, like a turtle to its carapace. This rugged cathedral was his armor.<sup>207</sup>

This speaks on many levels to the figure in the automobile – the nest in a shell, so to speak.

Certainly the surface, the skin, the shell of metal, plastic and plexiglass is always our armor, and always stronger in our minds than in the world. In the world of automobility it is the shell that keeps us safe. It is also the dividing point, the defining line, of interior and exterior; a hardened skin that ensures the safety of our own flesh and bone nestled inside, vulnerable, easily broken.

As Bachelard describes in terms of the home, so is true of our home on wheels, the automobile:

Thus, well-being takes us back to the primitiveness of the refuge. Physically, the creature endowed with a sense of refuge, huddles up to itself, takes to cover, hides away, lies snug, concealed. If we were to look among the wealth of our vocabulary for verbs that express the dynamics of retreat, we should find images based on animal movements of withdrawal, movements that are engraved in our muscles. How psychology would deepen if we could know the psychology of each muscle!<sup>208</sup>

Although at first glance, the role of the shell seems primarily for the protection of the nest and its precious occupants inside, its purposes are mutable and multifold, differing radically depending on where you are located. For those outside the car, the shell is perceived as the car's body, a measure of the physical presence of automobility on the road. It can attract attention or render its occupants invisible (or, at least, anonymous) – depending on the style, shine, upkeep, etc.. The shell links the automobile to the timeline of automobile production; its lines and/or curves, in short, it's *style* links it to a specific era (as exacting as a specific year to the eyes of a car connoisseur) – even as the time-space within the nest is often experienced as outside of time, or the specific time of a trip. In a city, the shell is typically experienced as one

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<sup>207</sup> Gaston Bachelard, *The Poetics of Space*, 90.

<sup>208</sup> Gaston Bachelard, *The Poetics of Space*, 91.

component in the community of vehicles that dominate the streets; one unit in the system of automobility. In the country, the shell is perceived as an anomaly, with the shell of metal and glass providing a cold, hard counterpoint to the organic, natural environment it moves through.

For those inside the car, the shell is perceived as a sort of exo-skeleton, and particularly by the driver, as an extension of his or her physical body. It is what preserves the sanctity of the nest, and keeps other inhabitants of the road at what is perceived as a 'safe distance.' Encased in the shell on a road free of traffic, travelers can perceive themselves as the projectile both Schivelbusch and Virilio describe, and move at great speeds. At slower speeds, or even stopped, because of the heavy flow of traffic, it is the shell that marks your territory, preserves your precious position in a line of traffic that will get you to your destination before everyone behind you (seen in the rearview mirrors). As Kristin Ross describes in her crucial book on the rise of automobility in France, *Fast Cars, Clean Bodies: Decolonization and the Reordering of French Culture*, this too is a form of "liberty from social constraint that speed once promised to provide."<sup>209</sup> The social constraints one is liberated from include the necessity of communicating with people around you (as you may feel compelled to do in a room full of people), or worrying what you say or do or even wear, within the protective confines of the nest within the shell.

The divide between the nest and shell of the automobile only seems to strengthen after World War II. As automobile historians Robert Wieder and George Hall describe, most enclosed cars manufactured after the war were "mini-arsenal[s]—of privacy, seclusion and isolationism on a par with our national thinking—and a vehicular deterrent to invasion by others."<sup>210</sup> At the same time, the relationship between an automobile's interior and interiority had been growing since the end of World War II "when automobility was promoted as a solution to economic and social malaise" and "driving a new car became 'a way to celebrate winning the war.'"<sup>211</sup> Not only

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<sup>209</sup> Kristin Ross, *Fast Cars, Clean Bodies: Decolonization and the Reordering of French Culture* (Cambridge, MA: The MIT Press, 1995), 55.

<sup>210</sup> Robert Wieder and George Hall, *The Great American Convertible: An Affectionate Guide* (New York: Doubleday, 1977), 32.



was the automobile increasingly a measure of personal autonomy, it provided tangible evidence of a new beginning. Prosperity was no longer around the corner, it had arrived, and was parked in the driveway (or garage). But becoming a measure of success also meant becoming a target for those still lacking access to automobility. As Mark Osteen explains in his essay, “Noir’s Cars: Automobility and Amoral Space in American Film Noir,” while the automobile’s fusion of privacy and mobility “promised a means of bypassing class and gender barriers [,] noir’s cars likewise frequently represent the propulsive aspirations of disenfranchised people who turn to crime, embodying the possibility of social mobility through automobility.”<sup>212</sup> Indeed, many of the classic film noirs of the late 1940s and early 1950s revolve around issues of automobility: *Double Indemnity* (Billy Wilder, 1944), *The Postman Always Rings Twice* (1946), *The Devil Thumbs a Ride* (Felix E. Feist, 1947), *Desperate* (1947), *Detour* (Edgar G. Ulmer, 1948), *They Live By Night* (Nicholas Ray, 1948), *Shockproof* (Douglas Sirk, 1949), *Impact* (Arthur Lubin, 1949), *Gun Crazy* (Joseph H. Lewis, 1950), *Side Street* (Anthony Mann, 1950), *Where Danger Lives* (John Farrow, 1950), *Angel Face* (Otto Preminger, 1953), *The Hitch-Hiker* (Ida Lupino, 1953), *The Big Combo* (Joseph H. Lewis, 1955), *Kiss Me Deadly* (Robert Aldrich, 1955), *Plunder Road* (Hubert Cornfield, 1957).

In *Double Indemnity*, the assumption of the family automobile as a space of safety and privacy sealed off from the outside world proves deadly to Mr. Dietrichson (Tom Powers) when his wife Phillis (Barbara Stanwyck) and insurance investigator Walter Neff (Fred MacMurray) conspire to murder him. The protective powers and privacy enabled by the shell are what seal Mr. Dietrichson off from the outside world, ensuring the privacy of his murder. From the confines of the nest, Walter Neff emerges as a double for Mr. Dietrichson (in more ways than even he knows, as it will turn out by the end). Here, the rules of automobility are subverted and

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<sup>211</sup> See Mark Osteen, “Noir’s Cars: Automobility and Amoral Space in American Film Noir,” *Journal of Popular Film and Television*, Vol. 35, Issue 4 (2008), 184; and Katie Mills, *The Road Story and the Rebel: Moving Through Film, Fiction and Television* (Carbondale, IL: Southern Illinois University Press, 2006), 36.

<sup>212</sup> Mark Osteen, “Noir’s Cars: Automobility and Amoral Space in American Film Noir,” 184.

turned against the patriarch. The hierarchy of the front seat is overthrown, transforming the back set forevermore into a potential threat within automobility, both on screen and off.

Two years later in *The Postman Always Rings Twice*, history repeats. This time it is the young wife (Lana Turner) in the driver's seat, with her older husband (Cecil Kellaway) in the passenger seat fully aware of the drifter-turned-employee, Frank Chambers (John Garfield), in the backseat, but of course unaware of the conspiracy between him and his wife. In both films we see that when all the occupants are facing forward towards the front windscreen the balance of power tips to the person in the backseat because s/he has the broader perspective. While the front seat offers the driver and passenger a privileged POV of the road ahead and seemingly superior access to automobility, the back seat becomes a kind of blind spot determining the direction and velocity of the narrative. In the nest of the automobile it is the secret relationship that is empowered, the conspiracy between front and back seats, that easily overpowers the institution of marriage. As Osteen describes it, "The profound sense of privacy and isolation fostered by geography extends to citizens' cars, which in films noir become not only alternative homes but also amoral spaces where laws and social arrangements—marriage, class hierarchies—are suspended."<sup>213</sup> As a result, there is a new moral hierarchy established in the nest in the shell, giving preference to the passion of lovers over the institution of marriage. As Kathleen McHugh points out, the narrative of this film, like *Suspicion* and *Notorious*, uses the car to threaten or destroy romance, domesticity, and reproduction.<sup>214</sup>

To cover their tracks (literally), after the murder, they push the car over the edge of the cliff. Once again we see the automobile repurposed as a sort of coffin, only this time with the corpse tucked inside the nest in the shell. Here the lovers seek to frame automobility itself for the death of her husband, reframing the murder as 'accident' in the form of a car crash. For awhile it looks as though they're going to get away with it. But in the end, automobility has its revenge. Returning to the scene of the crime (the front seat of the car) near the close of the film,

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<sup>213</sup> Mark Osteen, "Noir's Cars: Automobility and Amoral Space in American Film Noir," 184.

<sup>214</sup> Kathleen McHugh, "Women in Traffic: L.A. Autobiography," 430.

Cora kisses Frank to celebrate their success, causing Frank to crash into the bridge, killing Cora in the process and ultimately condemning himself to execution for her murder.

In *Impact*, we see these same variables reworked to radically different results. While the motive and plan remain the same – an unfaithful wife (Helen Walker) and her lover (Tony Barrett) conspiring to kill her husband, Walter Williams (Brian Donlevy), behind the wheel – this time it is only the two men in the car, with the ghost of the wife’s intentions haunting the nest throughout the trip. Walter Williams has no idea that the man in the passenger seat is not actually his wife Irene’s cousin, Jim Torrance, as she claims, but instead her lover. As in both *Double Indemnity* and *The Postman Always Rings Twice*, the Traveler-Spectator is aware of the murderous plan before we get into the automobile with these two men. As a result, we are trapped in the intimate space of the nest, unwilling observers, and unable to do anything about it. This time it is the lover/killer at the wheel, with the husband joining us in the passenger seat.

Here we see a murderous plan entirely framed by automobility. Jim causes the rear tire to have a slow leak before they begin their trip. Eventually having to pull the car over on the side of a steep roadside cliff to fix the flat provides the setting. With the trunk open, blocking Walter’s vision, Jim produces his weapon of choice: the tire jack. After the tire is changed, Jim insists that Walter dropped his cufflink under the car. When he reaches underneath, his vision blocked by the shell, Jim strikes him with the tire jack. When a concerned passerby stops just moments afterwards, again it is the shell of the car that acts to obscure the scene of the crime, as Walter’s body lies on the side of the road out of sight. Jim rolls Walter’s body over the side of the cliff, then realizes the keys are still in his pocket, so has to go retrieve them. When a moving van pulls up, also asking if he needs help, Jim panics, jumps in the car and speeds off, looking back over his shoulder and not seeing the approaching gas tanker coming around the bend. The two vehicles collide head on and both plunge over the side of the cliff, engulfed in flames.

In *Angel Face* it is the sociopathic Diane Tremayne Jessup (Jean Simmons) who plots the death of her step-mother (Barbara O’Neil) under the suspicious eyes of new chauffeur and

lover, Frank Jessup (Robert Mitchum). Essential to her plan is her expert knowledge of automobility; specifically, her ability to reconfigure her parent's car's transmission so that when they put it into drive, it instead goes in reverse. What isn't planned is her beloved father (Herbert Marshall) joining his wife at the last minute. So when the woman puts it into drive, the car roars into reverse, shooting over the side of the cliff, killing them both. After being tried and, ultimately, acquitted for murder, the couple's relationship frays. When Frank decides to leave, Diane offers to take him to the train station in her car. But once he's in the car, she instead puts it in reverse, sending the car over the side of the cliff, killing them both – in one of the greatest shock endings in film noir.

Even more typical in noir films is a focus on lovers on the run, starting with Fritz Lang's 1937 film, *You Only Live Once*, which predates noir by almost a decade, and singlehandedly creates the template for the films noir that follow: *Desperate* (1947), *They Live by Night* (Nicholas Ray, 1948), *Shockproof* (Douglas Sirk, 1949), *Gun Crazy* (Joseph H. Lewis, 1950) and *Where Danger Lives* (John Farrow, 1950) – as well as the popular cycle of road movies of the 1960s and 1970s: *Bonnie and Clyde* (Arthur Penn, 1967), *Wanda* (Barbara Loden, 1970), *The Getaway* (Sam Peckinpah, 1972), *Badlands* (Terrence Malick, 1973), *Thieves Like Us* (Robert Altman, 1974), *Sugarland Express* (Steven Spielberg, 1974), *Dirty Mary, Crazy Larry* (John McHough, 1974) – and the re-boot of the lovers-on-the run/outlaw couple road movies of the 1990s: *Wild at Heart* (David Lynch, 1990), *Thelma and Louise* (Ridley Scott, 1991), *My Own Private Idaho* (Gus Van Sant, 1991), *The Living End* (Gregg Araki, 1992), *True Romance* (Tony Scott, 1993), *Kalifornia* (Domenic Sena, 1993), and *Natural Born Killers* (Oliver Stone, 1994).<sup>215</sup>

In each of these films, the fates of the lovers are interminably linked to automobility, for better, and more often, worse. The nest within the shell insulates them from a world that both rejects them and is hunting for them. Here we see some of the clearest examples of the absolute equivalence of the nest of the automobile to the nest that a house typically provides. As Osteen

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<sup>215</sup> I will be examining these films of the 1960s and 1970s as well as the 1990s in Chapter Four.

points out, it is in these films we see “fleeing lovers treat their cars not only as sexual fetishes, symbols of identity and murder weapons but also as living rooms, bedrooms, nurseries and so on”; as a result, their “cars challenge and replace ‘the normative American home [...]’”<sup>216</sup> Starting with Eddie (Henry Fonda) and Joan (Sylvia Sydney) in *You Only Live Once* we are introduced to a series of young couples who are denied access to the traditional family home, often able to only look in through a window from the outside. In response, they recraft the nest of the automobile as their home; protected by the shell, and, unlike the immobile house, the home on wheels is a better fit for the fugitive couple. While the home on wheels seems to offer anonymity, at the same time, the windows on all four sides also put the fugitive couple on constant display, revealed to anyone who looks in their direction. In *You Only Live Once* we see a cynical portrayal of the family unit in a home on wheels, following the couple from courting to honeymoon to parenthood, and ultimately the transformation of the space of the car and its endless automobility into the very prison he seeks to escape.

*They Live by Night*, made a decade later, repeats the story and character arcs almost verbatim. Here the mark of success for the young Bowie (Farley Granger) is measured by his purchase of a brand new convertible, meant to signal upward mobility, transporting him from the stigmas of being an ex-con to his dreams of a family and home to house them. However, the convertible proves to be the only home he and his young wife, Keechie (Cathy O’Donnell), are able to access, and as far as they can climb the social ladder. As Osteen summarizes: “Their convertible provided only the illusion of transformation; its mobility was merely geographic, never social, and even that movement was circular. Little more than children Bowie and Keechie were merely playacting in their wagon, briefly realizing a fantasy of rising from poverty.”<sup>217</sup> Both films were inspired by the real life story of fugitive couple on the run, Bonnie and Clyde, and will go on to inspire the later film, *Bonnie and Clyde* (Arthur Penn, 1967) – which will be discussed in detail in Chapter Four. As in the Penn film, as soon as Bowie and Keechie stop their cycle of

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<sup>216</sup> Mark Osteen, “Noir’s Cars: Automobility and Amoral Space in American Film Noir,” 185.

<sup>217</sup> Mark Osteen, “Noir’s Cars: Automobility and Amoral Space in American Film Noir,” 186.

automobility long enough to park their car at an auto camp, they become visible, able to be pinpointed on a map, located, and ultimately either captured (as they are in the film), or shot (as they are in the original 1937 novel, *Thieves Like Us* by Edward Anderson, later adapted again for a film of the same name in 1974 directed by Robert Altman). For David Laderman, the dark and often fatal destinies awaiting the protagonists of these films are “punishment for venturing beyond conservative culture,” and trying to live outside society’s rules and spaces like the traditional family home.<sup>218</sup> Ed Dimendberg echoes this declaration, observing how films like *Plunder Road* pronounce “a melancholy verdict about the promise of the open road.”<sup>219</sup>

Similarly, in *Gun Crazy*, criminal couple Annie Laurie Starr (Peggy Cummins) and Bart Tare (John Dall) are seemingly fused to their automobile throughout the film; it is automobility that links them, and in the end, binds them. Literally. When the final plan calls for the couple to spilt up in two separate cars driving the opposite directions, they find they cannot do it. So they remain, fused and bound to the same force of automobility that has carried them throughout the film, as Osteen points out in his article *twice*, they remain both “gun—and car—crazy.”<sup>220</sup>

In *Gun Crazy* movie-goers got their first taste of real speed on real roads on the screen – a rare feat in narrative cinema of that period, and seen only one other time that decade, in *Kiss Me Deadly*. Both films offered the Traveler-Spectator their first taste of the on screen experience of automobility in narrative cinema in the nest of an actual automobile speeding down actual roads thanks their experimentation with early car camera mounts – over a decade before such spectacles became normalized. Most notable was *Gun Crazy*’s infamous three-and-a-half-minute robbery sequence, captured on 16mm film by cinematographer Russell Harlan via a repurposed stretch Cadillac with its back seats pulled out and replaced by two greased boards which housed a platform that allowed dolly shots to be taken within the automobile (a first!). In addition to director Lewis and D.P. Harlan, sound engineer Tom Lambert, there were five other

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<sup>218</sup> David Laderman, *Driving Visions: Exploring the Road Movie*, 26.

<sup>219</sup> Ed Dimendberg, “The Will to Motorization: Cinema, Highways, and Modernity,” *October* 73 (Summer 1995), 132.

<sup>220</sup> Mark Osteen, “Noir’s Cars: Automobility and Amoral Space in American Film Noir,” 187.

crew members were either crammed into the backseat or on top of the car for the scene, which was shot in two takes.<sup>221</sup> Writing about the film for the *New York Times* in 1991, director Martin Scorsese singled out this scene as the film's centerpiece:

The camera moves around in the car, ingeniously, but never leaves it. The scene is unrelenting. Long single takes like this one can't be just camera choreography. If they work, they have to literally pull the audience along with the actors and into the action. They obliterate the separation between screen and spectator. There's no more audience. There are only accomplices.<sup>222</sup>

Key to this alliance is occupying the intimate space of the nest with these characters for such a sustained duration. Like them, we are also safe in a private space protected by the shell, able to share even our most intimate secrets and devious plans, seemingly invisible to all in our approach. But after the robbery we are just as surely exposed; now, all eyes are on the nest, and we are suddenly trapped inside with the robbers. But the view from the back seat changes as soon as Bart Tare (John Dall) gets out of the passenger seat outside the bank. Up until then, the view through the windshield is that of reality in an urban environment in 1950. The fictional world is confined to the interior of the car. It is the same sort of separation we have seen countless times before, only then, the reality of the environment was being projected on the rear-projection screen (within a screen), while the interior was shot on a studio soundstage. In *Gun Crazy*, as soon as Bart Tare steps out of the car, the world transforms. There is confusion. Is the city street now part of the fiction? Or is his character now part of the real world?

Other rules are being broken along the way. From the beginning of the sequence, our stars have their backs to us; we catch only glimpses of their faces in profile. Their dialogue is broken, unpracticed; unnatural, according to the rules of professionalism assumed in narrative filmmaking. This only serves to further accentuate the thrill of being hidden away in the back seat, unseen passengers, accessories, Traveler-Spectators. When the police officer approaches, it is almost as if Annie Laurie Starr (Peggy Cummins) is talking to us (who else could it be?) "That's

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<sup>221</sup> See Eddie Muller, *Gun Crazy: The Origin of American Outlaw Cinema* (Pennsylvania: Black Pool Productions 2014).

<sup>222</sup> Martin Scorsese and Jay Cocks, "Maverick Movie Makers Inspire Their Successors," *New York Times* (May 12, 1991). <https://www.nytimes.com/1991/05/12/archives/film-maverick-movie-makers-inspire-their-successors.html>. Accessed November 3, 2020.

right, stand right there,” she offers to us sardonically. Then she does the unthinkable: she pulls the car up right next to him. Even more surprising than her getting out to talk to him is the fact that the camera moves forward inside the automobile now hovering in the passenger seat watching and listening to the conversation through the open window. When the couple crawl back into the car, bank alarm clanging, unconscious cop curled up on the sidewalk, the camera retracts once again to the back seat. But it is as if, once mobile it needs to continue to move, tracking in to get close on Cummins’ gleeful face when she turns around to survey the mayhem they’ve left behind. The camera then hovers over the shoulders of the couple as they make their way out of town before retracting back to its original position shortly before the sequence ends.

Our entry into the world of *Kiss Me Deadly* is accomplished almost entirely through the means of automobility. The film opens with the unlikely combination of bare feet on pavement at night. An all-new variation on the hitch-hiker, we meet a terrified Christine Bailey (Chloris Leachman in her first film role) clad only in a trench coat, and little else. Unable to wave or thumb a ride, she steps in front of the next car she sees, arms crossed over her face as headlights bear down on her. The car swerves and screeches to a halt, narrowly missing her. The first line in the film, and introduction to our anti-hero, Mike Hammer (Ralph Meeker): “You almost wrecked my car.”

Once in the tiny, low-riding convertible, Traveler-Spectators are treated to a striking POV over the two actors’ shoulders, looking through the windshield at a glowing interior and dividing line lit up by headlights as credits roll from top to bottom of the screen as if they were part of the road.<sup>223</sup> This experience of automobility is unlike any other in this period, and our phantom ride remains one of the most thrilling in cinematic history. The early car mount used here fuses the camera too close to the shell of the automobile, so there is a sense of constant vibration. Every bump in the road registers dangerously, as if the car or camera or both could fly off the road at any moment. These are real roads, and they are dangerous. There is no slippage

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<sup>223</sup> A style which George Lucas would swipe for his first *Star Wars* film more than two decades later.



between location and studio setting, no use of rear-projection. The spectator's experience of bodily presence is doubled here with Leachman's breathing registering far louder than the diegetically sourced AM radio score of Nat King Cole. The sound, too, is also experienced as too close; a result of the close mic-ing of Leachman's heavy breathing and crying/laughing and the fact that these sounds were obviously recorded later and laid in, as there is no wind sound until there is a cut to the reverse angle. With this cut we are now looking into the nest from a camera mounted to the hood of the car, framing the pair behind a windshield comprised of two pieces of glass fused in the metal by a relatively thick piece of metal. The traveling shots are truly transformative here; supple and embodied even now for the Traveler-Spectator, and must have been even more so in 1955 when no-one was used to experiencing such a visceral portrayal of automobility. The unparalleled shakiness of the camera in this opening sequence registers phenomenologically as presence, and it is our own bodies that are shook to the core, starting in the field of vision and spreading. The sense of presence experienced here could otherwise only be seen in home movies of that era, amateurs holding the cameras, family members allowed access on intimate scenes – and, the driving safety films that started appearing at almost the same time (which will be examined in depth in the next chapter).<sup>224</sup>

For anti-heroes and thieves like these, the unique fusion of nest and shell the automobile offered in the 1930s, '40s and '50s provided the "topography of intimate being" that Gaston Bachelard describes and the "reflection of self" that Roland Barthes declared. But this is a nest built by suffering, exactly as Bachelard describes with respect to Michelet's interrogation of the

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<sup>224</sup> Like *Impact* before it and *Bullitt* after, *Kiss Me Deadly* features an entire plot hung on automobility. In part this due to our anti-hero, tough-talking detective Mike Hammer, who is introduced to us, at least in part, through the eyes of the hitchhiker he picks up in the film's opening. "I was thinking about how much you can learn about people from such little things. Your car, for example," she observes. "You're one of those self-indulgent males who thinks about nothing else but his clothes, his car, himself." And of course she's right. The first place he goes after getting out of the hospital after an accident that wasn't an accident that resulted in Christine's death is straight to the garage to check on his car. Of course being a detective in Los Angeles requires a car to put the pieces together of a case, and in the film we see the city on display through the POV of automobility. According to the film's press book over seventy-five percent of the film was shot on exteriors in Los Angeles, preserving a version of the city on celluloid that would soon cease to exist. We greet each new location with Hammer in his car, framing each space within the frame of the windscreen and offering spectators their accessibility via automobility. (Download a copy of the original 1955 press book for *Kiss Me Deadly* here: [https://www.zomboscloset.com/zombos\\_closet\\_of\\_horror\\_b/2020/10/kiss-me-deadly-1955-pressbook.html](https://www.zomboscloset.com/zombos_closet_of_horror_b/2020/10/kiss-me-deadly-1955-pressbook.html).)

bird's nest. These noir films not only reveal the "illusions of stability"<sup>225</sup> that automobility promised in this period, but just how quickly they fall apart.

Of course being sealed in a shell – even one that is partly transparent as the automobile is – also means being cut off from the outside world, disconnected from the environment that contains a community of travelers, each sealed off from one another in their own nest within a shell. The ramifications of this stretch far beyond the individual, or even a community, affecting the very construction of the city itself. Within the nest the lived body is still perceiving – but only what is within the shell; these are the limits of the senses of automobility. There are sounds and smells and textures. Certainly the driver feels things other than the steering wheel. But the size of the shell limits the Traveler-Spectator to what is within reach, and the seat belt limits one even more -- an apparatus conceived with a Protestant slant that betrays its time of origin -- both firm and forgiving; tethered, grounded to the radius of the shell – even as the promise of automobility continues to reach as far as you can see, and beyond.

For Bachelard, however, while the shell defines the boundaries that limit our movements within the nest, it is this same lack of mobility – in the car, as in the cinema – that encourages us to dream, to stir the literal depths of our being. "A creature that hides and 'withdraws into its shell,' is preparing a 'way out.' This is true of the entire scale of metaphors, from the resurrection of a man in his grave, to the sudden outburst of one who has long been silent," Bachelard explains; "If we remain at the heart of the image under consideration, we have the impression that, by staying in the motionlessness of its shell, the creature is preparing temporal explosions, not to say whirlwinds of being."<sup>226</sup> This certainly is as equally applicable to the Driver-Car in sociological theories of automobility as the idea of the Traveler-Spectator in the cinema outlined in this dissertation. Both time-spaces are similarly suspended, and doubled. In the cinema there is the time-space where you are watching a film (whether it is a theater, or home, or even your smartphone) and the time-space of the narrative of the film. Similarly, in the automobile, there

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<sup>225</sup> Gaston Bachelard, *The Poetics of Space*, 17.

<sup>226</sup> Gaston Bachelard, *The Poetics of Space*, 111.

is the time-space in the nest, both intimate and personal, and the time-space outside the shell, public and impersonal. In both cases, it is the screen that is the dividing line between the two – the cinema screen, and the windscreen – the transparent membrane that is part of the shell but also a screen that encourages daydreaming, and enables perception.

### **AUTOMOTIVE VISUALITY: A VISION OF THE WINDSCREEN**

While many theorists in the early stages of film theory likened the film screen to a mirror, I would argue that a closer relation would be the windscreen/windshield of a car. Certainly after World War I, the pair zoomed off on similar high velocities of popularity. When the invention of television threatened the zenith of film-going in the 1950s, the cinema responded with a wider screen – in an almost identical ratio to a windshield. With the proportional match in viewing, widescreen and windscreen, automobility and the cinema became even more aligned.

In their recent overview of the history of film theory, Thomas Elsaesser and Malte Hagener devote an entire chapter to the consideration of the window as a model for the cinema. Similarly, it is the combination of the window *and* its frame that sets up the relationship between the viewer and the image. They explain:

Even though both concepts meet in the compound ‘window frame,’ the metaphors also suggest somewhat different qualities: one looks *through* a window, but one looks *at* a frame. The notion of the window implies that one loses sight of the framing rectangle as it denotes transparency, while the frame highlights the content of the (opaque) surface and its constructed nature, effectively implying composition or artificiality. While the window directs the viewer to something behind or beyond itself – ideally, the separating glass pane completely vanishes in the act of looking – the frame draws attention both to the status of the arrangement as artefact and to the image support itself: one only has to think of classical picture frames and their opulence and ornaments, their conspicuousness and ostentatious display. On the one hand, the window as a medium effaces itself completely and becomes invisible, and on the other, the frame exhibits the medium in its material specificity.<sup>227</sup>

Elsaesser and Hagener go on to specify:

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<sup>227</sup> Thomas Elsaesser and Malte Hagener, *Film Theory: An Introduction Through the Senses* (New York: Routledge, 2010), 15-16.

As we will be arguing, the concepts of window and frame share several fundamental premises but also exhibit significant differences. Let us start with the similarities: First of all, the cinema as window and frame offers *special, ocular access* to an event (whether fictional or not) – usually a rectangular view that accommodates the spectator’s visual curiosity. Second, the (real) two-dimensional screen transforms in the act of looking into an (imaginary) three-dimensional space which seems to open up beyond the screen. And third, (real and metaphorical) distance from the events depicted in the film renders the act of looking safe for the spectator, sheltered as s/he is by the darkness inside the auditorium. The spectator is completely cut off from the film events, so that s/he does not have to fear his/her direct involvement in the action (as in modern theatre) nor does s/he feel any moral obligation to intervene (as in real life).<sup>228</sup>

With the automobile, the traveler is sealed off from that outside world, insulated from it, and moving through it – or, in heavy slow-moving traffic, prevented from moving through it. While the frame of the windscreen acts to enframe the world outside, setting the limits on what we see, it also acts to seal us inside, framing us just as surely for other drivers on the road or pedestrians on the side of the street. It is of course this question of movement, or velocity, that remains just as crucial in connecting the automobile to the cinema, as the frame or screen itself; perhaps more so. Within the world of architectural theory, Margaret Crawford echoed these findings a few years later with regard to automobility and the built environment:

Unlike the pedestrian, whose fully utilized senses require buildings providing a full range of stimuli, the driver’s senses are numbed by the metal jacket of the car. Thus architecture, intended to be perceived slowly through touch, smell, and hearing, has been replaced by facades perceived completely with the sense of vision. Moving too fast to smell, sealed off from sounds by air conditioning, radio, and tape decks, and with touch limited to the steering wheel, the automobile’s perceptual limitations have distanced the driver from a traditional sense of reality, dematerializing the world beyond the windshield.<sup>229</sup>

The dematerialization of the world and disconnection of the traveler from it enabled by automobility would be echoed and amplified on the screen of the cinema almost from the very beginning for the Traveler-Spectator. In the earliest onscreen representations of automobility, we were rarely given the perspective of an automobile’s occupants (as discussed in Chapter One). Instead, the automobile and its occupants remained the sole focus of the camera’s

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<sup>228</sup> Thomas Elsaesser and Malte Hagener, *Film Theory: An Introduction Through the Senses*, 15.

<sup>229</sup> Margaret Crawford, “The Fifth Ecology: Fantasy, The Automobile and Los Angeles,” *The Car and The City: The Automobile, The Built Environment and Daily Urban Life*, Ed. Martin Wachs & Margaret Crawford (Ann Arbor: University of Michigan Press, 1991), 227.

attention, observing them from an outsider's perspective. Their POVs were privileged, and denied to us. We could look in on them, but could not look out with them.

For the first twenty-five years of the automobile age, cars didn't even have windshields. The first several generations of cars didn't feature any glass in their construction, other than a handful of tiny gauges on the dash. It was only with the invention of tempered glass that the windshield became first an option, then a standard feature. Early vehicles were closer to carriages – hence their initial designation as “horseless carriage” – and drivers wore goggles. Of course, prior to 1919 or so, these “horseless carriages” were scarcely able to achieve speeds over ten or fifteen miles per hour, and there were so few on the road, safety was not a priority among early manufacturers. The word “windshield” in fact originates because that was actually its only original purpose – to shield and protect the driver from the wind and debris that might be stirred up while driving. But the earliest windshields were made of standard glass – which would shatter upon impact with any serious debris, causing far more injury to the car's occupants than driving without one.<sup>230</sup>

Laminated glass was invented in France by chemist Édouard Bénédictus in 1903, inspired by a laboratory accident involving a glass flask, coated in cellulose nitrate, that to his shock did *not* break when he dropped it.<sup>231</sup> However, he did not actually file the patent until 1909; this time inspired by a local car accident involving the serious injury of two women by glass debris. Because production was slow and expensive, it was not adopted by automobile manufacturers until Henry Ford began offering it as an option in 1919. For the next decade, this was an optional feature on all Fords rolling off the assembly line – for an additional \$200 – not becoming standardized by other manufacturers until the 1930s, and only becoming required by law in the late 1960s.<sup>232</sup> Prior to this, the laminated glass pieces were used in the eyemasks worn

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<sup>230</sup> “Your Windshield Is Not Just a Wind-shield Anymore,” *National Glass Association*; [https://web.archive.org/web/20090802145330/http://www.glass.org/consumer/a\\_windshield.htm](https://web.archive.org/web/20090802145330/http://www.glass.org/consumer/a_windshield.htm). Accessed September 25, 2020.

<sup>231</sup> Jean-Marie Michel, *Contribution to the Industrial History of Polymers in France* (April 27, 2012), <https://www.societechimiquedefrance.fr/Contribution-a-l-histoire-industrielle-des-polymers-en-France-par-Jean-Marie.html>. Accessed September 25, 2020.

by pilots in World War I. At almost the same time in England, a solicitor named John Crewe Wood also invented a form of laminated glass – this time intended for use in windscreens – and patented in 1905.<sup>233</sup> His process involved the bonding of glass by a special kind of turpentine made from the resin of the balsam fir tree. Unlike the French process, the English version, using the so-called Canada balsam, did not deteriorate with age, and had a far higher optical quality, making it the standard in England until World War II, when polyester, epoxy and urethane-based adhesives became the standard. Interesting for the purposes of this study, Wood’s original patent referred to the product as a “transparent screen.”<sup>234</sup> Elsaesser and Hagener’s history of the semantics of the word ‘screen’ is enlightening here:

The word ‘screen’ developed in the early fourteenth century from the old Germanic term *scrim*, which opens up a rich semantic field. A *scrim* acts like a shield and protects us from enemies or adverse influences (such as the heat from a fire or the weather), thus allowing us to get closer. Yet a screen also denotes an arrangement that hides something or someone by dividing a space (e.g. by putting up a paravent). In this sense, the screen can mean the exact opposite of displaying something, making something visible, or bringing something closer, but refers rather to keeping a safe distance. [...] A further meaning of screen as a protective filter or coating is that of a curtain restraining sunlight and thus protecting light-sensitive persons or objects. This attribute is linked to visibility and light, but in contrast to the screen in the cinema auditorium it does so in a negative sense. By way of analogy, the word ‘screen’ can furthermore denote an object that is being used for the purpose of protecting, hiding or blocking, also implying a division or filter.<sup>235</sup>

This spectrum of meanings is enlightening when considering the role that automobility has played in establishing the rules of the screen – both in the car and in the cinema. In both places, the screen is not only responsible for the safety of the traveler, but maintaining a ‘safe *distance*’. In the cinema, this distance is what helps to keep the illusion intact, and the Traveler-Spectator in a safe space from which to watch and interact with the activities on screen, just as surely as

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<sup>232</sup> Ibid.

<sup>233</sup> David Burgess-Wise, “A Good Idea at the Time: Safety Motor Screen,” *The Telegraph* (December 1, 2001). <https://www.telegraph.co.uk/motoring/4754191/A-good-idea-at-the-time-Safety-Motor-Screen.html>. Accessed September 25, 2020.

<sup>234</sup> See <https://pdfpiw.uspto.gov/piw?Docid=00830398> for scans of the Wood’s original 1906 patent, including drawings.)

<sup>235</sup> Thomas Elsaesser and Malte Hagener, *Film Theory: An Introduction Through the Senses*, 42.

this distance keeps the Traveler on the road safe from a crash (a notion I will return to in detail in Chapter Three). As Elsaesser and Hagener go on to explain, regarding the origins of the screen:

Even such a partial account of the etymology and range of meanings given to the term clarifies that a number of features and attributes of the ‘screen’ stand to a relation of tension, if not outright opposition, to each other: screens hide and protect, but they also open up and reflect. Screens are (semipermeable) membranes through which something might pass, but they can also keep something out: they act as sieve and filter. They are rigid and solid, but they can also be movable and flexible. Screens are in effect something that stands between us and the world, something that simultaneously protects and opens up access [...].<sup>236</sup>

Elsaesser and Hagener’s account of the rules and responsibilities of the screen are just as easily transposed to the rules of automobility as the cinema. In both locales, screens ‘hide,’ ‘protect,’ ‘open up’ and ‘reflect,’ acting as ‘sieve and filter.’ While the windscreen is part of the shell, serving a crucial role protecting us in the nest of the automobile, they simultaneously ‘open up access’ to whatever environment we are moving through, urban or rural.

Of course the person sitting in the car or the cinema is not just a disembodied pair of floating eyes; he or she has a body that is there, too. As a result, perception of motion is not just visual, it is bodily. In both the car and the cinema, there is a strange simultaneity of motion and stasis which is both seen and experienced by the traveler. While the body of the car speeds down the highway, the movement of the human body in the nest is severely limited – for the most part sitting still. This, then, is the primary difference between the traveler’s experience of motion in the car and the Traveler-Spectator’s experience of motion in the car in the cinema. While the cinema only has one screen at the front of the theatre space, the car has screens on all four sides – “windows to the world” or “*windscreens*,” as British vernacular first termed it. In the car, as in the cinema, all the movement that the traveler experiences in terms of vision are *on* these windscreens. I purposefully use the word “on” instead of “through” via my reading of Wolfgang Schivelbusch’s classic text, *The Railway Journey: The Industrialization of Time and Space in the Nineteenth Century*. Like the cinematic apparatus, panoramic perception locates the objects and landscapes that the viewer’s body moves through as part of the apparatus itself that is

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<sup>236</sup> Thomas Elsaesser and Malte Hagener, *Film Theory: An Introduction Through the Senses*, 43.

responsible for that movement. As a result, those objects and landscapes that actually exist behind the windscreens are experienced as two-dimensional – as though they are actually *on* the windscreens rather than as an existing three-dimensional space behind them.

Of course there are any number of differences between traveling by train or automobile; all of which seem obvious at first glance, but which resonate on far deeper levels when considering either (or both) as models for cinematic spectatorship. Let's start with the most obvious. On a train, of course, you are most likely a passenger. But with an automobile, you could either be the driver or passenger; and this role could change at any point in your journey (that is a choice available to you, provided you've gone through the machinations of getting a driver's license) – hence my insistence on the term Traveler-Spectator, as opposed to the Lynne Kirby's term, the "spectator-passenger," which she uses when discussing the train as pre-cinematic device. The unique mutability of this position in automobility is certainly applicable to the cinematic experience. As a spectator, one is constantly toggling between the fantasy of being in control and simply watching due to use of POV shots, *mise-en-scène*, sound, voice-over, and of course driving sequences.

One of the most obvious and major differences between travel by locomotive and automobile is the question of perspective. On a train, the passenger is looking out at a 90-degree angle from the direction the train is traveling. As a result, the train spectator-passenger looks out on the landscape or cityscape as it travels by. Even by pressing your face against the window and looking as far forwards as you can, you'll never have the same POV as the engineer; never see clearly just where the train is heading. I suppose this could be a strong argument for the application of travel by train to the cinematic experience – forced to watch the action unfurl at a distance, with no way of knowing the direction in which it is heading. But I would argue that the perspective of automobility is a far more fitting model for the cinema – where the front windshield is the locus of attention (for everyone in the car; not just those seated in the front). With this POV, not only are you looking where you are going, you have the freedom to look past



what is in the foreground; in essence, to look *into* what is before you and try to gauge what is coming. That is of course always part of the cinematic experience as well, whether it comes in the form of a narrative or non-narrative film.

To date, the screen is the only aspect of the relationship between automobility and the cinema that has been investigated in any depth – and that, mostly within the field of Sociology. Anne Friedberg’s 2002 article, “Urban Mobility and Cinematic Visuality: The Screens of Los Angeles – Endless Cinema or Private Telematics,” is one of the few texts that addresses these issues in the field of cinema studies. In it, she focuses primarily on the manner in which the windshield acts as a screen that frames reality (part of her larger career-spanning investigation), coining the phrase, “automotive visuality” to describe the results.

While the filmic representation of architectural space and the work of architects on film decor and *mise-en-scène* have – so far – been the predominant manner in which architecture and cinema have been conjoined, a theory of film spectatorship that describes the shifting views of the spectator engaged in an imaginary and virtual mobility, relies on a different concept of the space of the cinema – one that emphasizes the relation between the bodily space inhabited by the spectator and the visuality presented by the space of the screen.<sup>237</sup>

Friedberg’s essay is certainly aligned, if not informed by Wolfgang Schivelbusch’s work (even if she doesn’t cite him by name). Her conception of “automotive visuality,” and the idea that “the automobile is a viewing machine,”<sup>238</sup> which is at the core of this very important article, is a variation on the pioneering concept of “panoramic perception,” that Schivelbusch introduced two decades earlier in his work on the locomotive. For both scholars, the point is the same – that perception becomes aligned with the moving vehicle, and therefore, transformed – even if the vehicles (and eras differ). Here is how Schivelbusch first described it:

The empirical reality that made the landscape seen from the train window appear to be ‘another world’ was the railroad itself, with its excavations, tunnels, etc. Yet the railroad was merely an expression of the rail’s technological requirements, and the rail itself was a constituent part of the machine ensemble that was the system. It was, in other words, that machine ensemble that interjected itself

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<sup>237</sup> Anne Friedberg, “Urban Mobility and Cinematic Visuality,” 188.

<sup>238</sup> Anne Friedberg, “Urban Mobility and Cinematic Visuality,” 184.

between the traveler and the landscape. The traveler perceived the landscape as it was filtered through the machine ensemble.<sup>239</sup>

For the purposes of Friedberg's short essay, the concept of automotive visuality is linked specifically with urbanity. "Driving transforms the mobilized pedestrian gaze with new kinetics of motored speed and with the privatization of the automobile 'capsule' sealed off from the public and the street," she explains.<sup>240</sup> For Friedberg, the focus remains on Los Angeles, the birthplace of car culture in this country (not to mention home to the over-populated and over-polluted vision of automobility's inevitable and all-too-close apocalyptic future), while Schivelbusch envisions his locomotives moving through a predominantly rural space. Obviously, a lot of this is to do with the different eras each scholar is discussing (for Schivelbusch, the 19<sup>th</sup> century; for Friedberg, the 20<sup>th</sup> century). It is also telling of the shift of the populace to the city in the 20<sup>th</sup> century, and resulting shift in the populace's perception to a predominantly urban point-of-view – and one mediated the perspective of automobility; or as Friedberg describes: "automotive visuality."

For Schivelbusch's locomotive traveler, traversing the wide-open spaces of the countryside in the 19<sup>th</sup> century as she or he moved from one city to another, this newfound conception of time and space was linked to velocity. But in a wide-open space defined by the landscape of the countryside, it was easy for a traveler to get lost in all that space without some reference point. Interestingly, it is really with the development of the electrical telegraph later in the 19<sup>th</sup> century when panoramic perception changes again...in *several* ways. First, the landscape is altered by the presence of these poles jutting up at regular intervals, not to mention the continuous horizontal line sliced through the skyline of the slightly sagging electrical wires. While the railroad itself remained largely invisible to the railway traveler (one of the advantages, perhaps, of being aligned with the method of propulsion and its resulting point of view), these newly-implanted telegraph lines were the visual mark of a modern, industrialized humanity

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<sup>239</sup> Wolfgang Schivelbusch, *The Railway Journey*, 24.

<sup>240</sup> Anne Friedberg, "Urban Mobility and Cinematic Visuality," 184.

being carved across the countryside, running parallel to the tracks, like a communicative reflection to the railway itself. As Schivelbusch points out, “the telegraph really only finds its first practical use through its bond with the railway – with these newly built lines of communication, the only way to ensure safety and a clear line ahead.”<sup>241</sup> The resulting symbiotic relationship of communication and transportation helped establish each new medium as new standards in travel and communication, forever aligning conceptions of mobility and communication.

The second way the introduction of the telegraph to the railway industry altered travel, which Schivelbusch points out in his book, is the equation of the visual component of the journey and the ever-presence of the telegraph poles that necessarily ran parallel to the tracks: “The landscape appeared *behind* the telegraph poles and wires; it was seen *through* them.”<sup>242</sup> As a result, “the rail traveler’s perceptions were changed by the intervention of the machine ensemble between him and the landscape; there was a material demonstration of that intervention in those poles and wires, which were a part of the machine ensemble.”<sup>243</sup> What is equally interesting – especially in terms of contrasting Schivelbusch’s book with Friedberg’s article – is the fact that what he is describing here suggests that these telegraph poles are providing a sort of frame for the train passenger’s vision – almost like the strip of film itself, with the landscape being framed in sixty-foot parcels of horizon, which when strung together, results in this newfound panoramic perception of a landscape forever altered by technology. Moreover, this also ascribes a visual aspect to communication, as well as aligning the notion of a modern technologically mediated communication with mobility; a key alignment that returns

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<sup>241</sup> Wolfgang Schivelbusch, *The Railway Journey*, 29-30. Interestingly, the original reason electrical telegraphy was introduced to railway travel was the goal was to avoid accidents/crashes – a notion I will return to in more detail in Chapter Four.

<sup>242</sup> Wolfgang Schivelbusch, *The Railway Journey*, 31.

<sup>243</sup> Wolfgang Schivelbusch, *The Railway Journey*, 24. There is a fascinating footnote on the same page of Schivelbusch’s book which references what he refers to as a prosaic (and, I think, equally fascinating) footnote in an anonymous work of 1848 entitled *Railway Appliances in the Nineteenth Century; or, The Rail, Steam and Electricity* (London, 1848): “These [the poles] are generally erected about sixty yards apart, or thirty in the mile, so that the speed of the train is easily found by counting the number of poles passed in a minute and multiplying by two, which course, gives the rate per hour.’ Thus the telegraph poles act as a kind of gauge for determining an element of the journey, i.e., velocity, that can no longer be experienced in an immediate way. This is a factor that contributes to the traveler’s alienation from the landscape.”

near the end of the 20<sup>th</sup> century with “the car phone” (as it was colloquially known when introduced).<sup>244</sup> For Friedberg, the visual signposts for automobility in the 20<sup>th</sup> century are all within the urban context, therefore more varied, manic, and in seen in something much closer to cinematic close-up (or close to medium) – therefore changing much faster than a countryside marked out in 60-foot swaths between telegraph poles. Here, she invokes the *flânerie*, as appropriated by automobility; drifting from boulevard to alley to passageways of the city, pointing out that “the *dérive* can avail itself of the potentials of psycho-geographical drift.”<sup>245</sup>

With this distracted experience of the city, enabled by automobility, we rewind to the beginning of the 20<sup>th</sup> century and Walter Benjamin’s crucial 1935 essay, “The Work of Art in the Age of Mechanical Reproduction.” Benjamin, after all, was one of the first to recognize the society of the early 20<sup>th</sup> century as “a collectivity in a mode of distraction.”<sup>246</sup> Benjamin introduces this concept to illustrate the similarities of how film and architecture are both experienced. Informed by the work of Georges Simmel and Siegfried Kracauer, Benjamin argues that these experiences are incidental, unconscious and even “absent-minded.” (This, opposed to the higher level of concentration required by the ‘higher arts’ of painting, sculpture, etc..) Benjamin’s predecessor, Georges Simmel, forecasted the atrophy of the senses three decades earlier at the turn of the century; arguing that the constant overstimulation and continuous shocks experienced by an occupant of the modern city would result in a society of dulled, distracted individuals.<sup>247</sup> The application to automobility is apt here – perhaps even more so

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<sup>244</sup> For Schivelbusch, there is a third aspect mentioned, but not really elaborated on – an alignment with this new industrialized way of seeing and writing itself: “The hurling railroad train appears as the very motion of writing and the telegraph poles and wires are the calligraphic instruments with which the new perception inscribes the panoramic landscape upon the real one.” (Wolfgang Schivelbusch, *The Railway Journey*, 31.) Schivelbusch ends the second chapter with this thought and never returns to expand on the concept. But I find it interesting that what he is suggesting here is that, in essence, modern mobility *and* typewritten communication are being simultaneously infused with perception. Mobility is like writing itself. Although it is not mentioned explicitly, if you’ve seen 19<sup>th</sup> century electrical telegraphs, the visual is quite clear: the strips of paper that early telegraphs were printed on also clicked their way around a wheel before traversing through a path of metal and wood; later on, at telegraph offices, these strips were snipped into manageable lengths and glued to the standard telegraph form – a reflection in miniature of the lengths of railroad track that were being laid across wide-open rural stretches of country, connecting each city to the next. I will elaborate on the ramification of this on modern communication and travel in my final chapter.

<sup>245</sup> Anne Friedberg, “Urban Mobility and Cinematic Visuality,” 184.

<sup>246</sup> Walter Benjamin, “The Work of Art in the Age of Mechanical Reproduction,” *Illuminations*, Trans. Harry Zohn (New York: Schocken, 1969): 239-40.

with regards to the driver than their passengers. After all, part of a driver's practical education behind the wheel is to keep shifting one's concentration – from the windscreen to each of the respective mirrors to all the various gauges housed in the dashboard – constantly moving – as if that would somehow allow you to achieve the impossible: 360 degrees of continuous perception at all times (a fantasy the cinema shares in various periods of its history that can be tracked via advances in widescreen processes, and experiments with immersive processes like 3-D, Imax, and VR). The passenger, too, has the option of a distracted journey – as the result of his/her having *nothing* to do – precisely the opposite of the 'good driver' who is expected to remain constantly distracted, all senses heightened, at all times.

While the telegraph poles are, in essence, what creates the frame of panoramic perception for Schivelbusch, for Friedberg (and most sociologists writing about automobility), all issues of visibility are entirely mediated by the *frame* provided by the windshield (or windows). “[...] The visibility of driving is the visibility of the windshield, operating as a framing device. (Of course, one is also sometimes a passenger, and the side windows and vents of an automobile frame the view of the scenery somewhat differently [...]),” she points out.<sup>248</sup> The first scholar to apply Schivelbusch's concept of panoramic perception to automobiles was Kristin Ross, in her pioneering 1995 book, *Fast Cars, Clean Bodies: Decolonization and the Reordering of French Culture*. As she points out, “Panoramic perception occurs when the viewer no longer belongs to the same space as the perceived object; as such, it pertains as much to the car driver as to the railway traveler.”<sup>249</sup> Ross' focus was the advent of modernization in France, and the love affair with the automobile in the postwar years – even if only one out of every eight people in France owned an automobile in 1961.<sup>250</sup> In the United States by that time, one out of every three Americans owned a car, and really it was only in the U.S. that “the automobile had been

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<sup>247</sup> See Georg Simmel, “The Metropolis and Mental Life,” *Georg Simmel: On Individuality and Social Forms*, Ed. Donald N. Levine, (Chicago: University of Chicago Press, 1971 [1903]), 324-339.

<sup>248</sup> Anne Friedberg, “Urban Mobility and Cinematic Visuality,” 184.

<sup>249</sup> Kristin Ross, *Fast Cars, Clean Bodies: Decolonization and the Reordering of French Culture*, 38.

<sup>250</sup> Kristin Ross, *Fast Cars, Clean Bodies: Decolonization and the Reordering of French Culture*, 29.

completely integrated into the banality of the everyday to the same degree as the refrigerator or the washing machine.”<sup>251</sup> Ross points out that “the centrality of the car in movies, novels, in the print consciousness of the period to a large extent *precedes* the car’s becoming commonplace in French life,”<sup>252</sup> but it is precisely this centrality that normalizes the car and the notion of automobile travel within French culture before it actually arrives on the streets. This mirrors how automobility was normalized in the U.S. decades earlier on a much larger scale.<sup>253</sup> In the context of Ross’ book, this pioneering linkage of cars and the cinema, is a relatively small point – but is, of course, of great importance to this work. Key to this particular study is Ross’ assertion that:

Surely the intensification of two burgeoning technologies, acting in tandem, would produce a qualitative acceleration in panoramic perception; for both cars and movies create perception-in-movement. The automobile and the motion it creates become integrated into the driver’s perception: he or she can see only things in motion—as in motion pictures. Evanescent reality, the perception of a detached world fleeting by a relatively passive viewer, becomes the norm, and not the exception it still was in the nineteenth century.<sup>254</sup>

What Ross is talking about here is a serious paradigm shift, not only visually, but also philosophically. This is a different way of not only seeing the world, but your relation to the world and, ultimately, how you live in it. As a result, with the normalization of automobility, we have reached a stage where we can *only* see things in motion, as we move through a detached world. In other words, our perception itself is now aligned with automobility. So, just for Schivelbusch, who pointed out in his book that panoramic perception became normalized as train travel became normalized, so too does the perception that accompanies automobility. In both cases, this is a machine-augmented version of vision.

With high velocity there is a diminution in visuality for the Traveler, but up to a point there is a sense of an increase in visuality, as speed increases. As you begin to move through a landscape (urban, rural or cinematic), your perception is that you are taking more in than when

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<sup>251</sup> Kristin Ross, *Fast Cars, Clean Bodies: Decolonization and the Reordering of French Culture*, 29.

<sup>252</sup> Kristin Ross, *Fast Cars, Clean Bodies: Decolonization and the Reordering of French Culture*, 27.

<sup>253</sup> See Chapter One for an in-depth discussion of that process.

<sup>254</sup> Kristin Ross, *Fast Cars, Clean Bodies: Decolonization and the Reordering of French Culture*, 39.

you were sitting still. Consider the time you are sitting in your car in a parking lot; or, for a cinematic example, Andy Warhol's minimalist classic, *Empire* (1964). In both examples, the spectator is presented with a static visual field. Yes, in the case of the car in the parking lot, you are presented, in effect, with a series of screens arranged in 360° all around you. But in both cases, the spectator has enough time to survey, and even study the visual field he or she is being presented with. Our eyes pan and scan; they tilt up and down to the vertical limits of our visual field – defined by the frame of the windscreen, or cinema screen. What results is both a wealth of details, and eventually or at least probably in both cases...boredom.

But, as soon as the car – or camera – starts moving, so does our perception. Different demands are being presented to our sensorium. The landscape suddenly seems to move, when in fact, of course, *we* are the ones who are moving. Our eyes and brains take in this seemingly moving landscape because we have become part of the apparatus. Credit for the recognition of this curious phenomenon in the locomotive goes to Wolfgang Schivelbusch. But of course perception in the automobile is radically different. When it comes to issues of velocity and the automobile, the theoretical foundation originates with the work of French philosopher Paul Virilio in his first book, *Speed and Politics: An Essay on Dromology* – first published in 1977 – the same year Schivelbusch's book *The Railway Journey* was first published in Germany.

Drawing from the Greek word for race or racetrack, *dromos*, Virilio proposes a “dromomatics,” or a study in the role that *speed* has had in history and how it has helped shape contemporary life. For Virilio the concept originates as a primary goal of war, of military superiority, but has gone onto shape and, ultimately, control most of the important functions in urban and social life – from the transportation to communication and the economy. While Schivelbusch tracks the root of the quest for speed back to the first usages of horses for riding, Virilio identifies the birth of speed with the invention of the combustion engine and electric telegraphy, locating the concept clearly at the birth of the Industrial Revolution in the 19<sup>th</sup> century. Like Schivelbusch, Virilio credits these inventions with transforming all notions of time

and space. For Schivelbusch the resulting transformation of vision resulted in wonder; whereas for Virilio, the result was *fear*. So, while Schivelbusch describes: “The railroad has created a new landscape. The velocity that atomized the objects of Ruskin’s perception, and thus deprived them of their contemplative value, became a stimulus for the new perception. It is the velocity that made the objects of the visible world attractive.”<sup>255</sup> For Virilio, it is just the opposite:

[...] In the animal world, speed is the fruit of terror, the consequence of danger. In fact, the reduction of distances by the acceleration of movement is the effect of the instinct for self-preservation. *Speed being simply the production of fear*, it is flight and not the attack that prompts the violent distancing, the sudden burst of speed. The constant acquisition of greater and greater speed is only therefore the curb to increasing anxiety; in this sense, ‘the transportation revolution’, in producing in the nineteenth century the factory of speed, industrializes terror: *the motor manufactures fear*.<sup>256</sup>

It is interesting that although Virilio claims real *speed* only comes in the 19<sup>th</sup> century – as opposed to Schivelbusch who charts it back 30,000 years earlier to the birth of horseback riding – Virilio bases his notion of the *fear* inherent in speed within the animal world. In other words, for Virilio, the impetus for technological development within transportation is the result of anxiety. This pursuit of speed, which is motivated to ‘curb increasing anxiety,’ only results in producing more of the same. For Schivelbusch too, of course, there are negative aspects that accompany velocity, specifically the fact that: “visual perception is diminished by velocity.”<sup>257</sup> But for Schivelbusch it goes beyond this, and in fact the entire sensorium is affected, because for him, the locomotive is more than just a vision machine. As he explains:

Velocity blurs all foreground objects, which means that there no longer is a foreground – exactly the range in which most of the experience of pre-industrial travel was located. The foreground enabled the traveler to relate to the landscape through which he was moving. He saw himself as part of the foreground, and that perception *joined* him to the landscape, included him in it, regardless of all further distant views that the landscape presented. Now velocity dissolved the foreground, and the traveler lost that aspect.<sup>258</sup>

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<sup>255</sup> Wolfgang Schivelbusch, *The Railway Journey*, 60.

<sup>256</sup> Paul Virilio, *The Negative Horizon: An Essay in Dromoscopy*, Trans. Michael Degener, (New York: Continuum, 2008), 44.

<sup>257</sup> Wolfgang Schivelbusch, *The Railway Journey*, 55.

<sup>258</sup> Wolfgang Schivelbusch, *The Railway Journey*, 63.



Here we see another inversion of thought between the two scholars. For Virilio, velocity opens up a new level of perception, resulting in a wondrous sensuous spectacle of speed:

I am aware that it is the movements of my body that are producing and destroying this landscape of transparencies, a bit like a passenger on a train sees trees and houses darting past, sees hills bending away; by my own speed, however weak it may be, I form or deform these particles of emptiness, these holes, these hollows, it is a game of construction that I develop without accessories, simply through being here or there.<sup>259</sup>

It is telling that Virilio here turns to a metaphor lifted directly from the cinematic world of automobility created by rear-projection. The “landscape of transparencies” refers directly to the use of rear-projection to project a cinematic still on a film set to create the illusion of an environment (as discussed earlier with its usage in *The Grapes of Wrath*). But then, for Virilio, “What goes on in the windshield is cinema in the strictest sense,”<sup>260</sup> and for almost forty years, it was precisely the use of rear-projection that was equated with automobility on screen. As film theorist Dominique Paini points out in the first-ever critical essay about rear-projection, “There is little doubt that, of all the cinematic devices, transparencies are among the most recognizable.”<sup>261</sup>

## **BEYOND THE WINDSCREEN: HITCHCOCK’S LANDSCAPE OF TRANSPARENCIES**

For Alfred Hitchcock, the Traveler-Spectator’s passage to a landscape of transparencies was prepared by an explicit alignment of the windscreen with the screen of rear-projection. As such the two become interchangeable, and often once the presence of the windscreen is established, it is done away with; with the screen of rear-projection standing in for it instead. But then, Hitchcock was constantly playing with the layers that are inherent in both

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<sup>259</sup> Paul Virilio, *Negative Horizon*, 28. More recently, Virilio’s work on dromoscopy has been appropriated within architecture by Mitchell Schwarzer who combines the concept with Schivelbusch’s panoramic perception to come up with his own concept of the Zoomscope. “Dromoscopic perception thus differs from panoramic perception. Unlike that steady, lateral vision out the side of an automobile or train, separated from the field of view, dromoscopic perception plunges us into the visual field. It is defined less by the languid gaze at passing forms and building outlines than by a headlong immersion into a free space of movement around which buildings recede. If panoramic perception turns buildings into objects of distanced reflection, dromoscopic perception approaches the built world through possibilities of engagement, tunneling through passages, turning to avoid collisions, always pursuing a distant horizon. Like a forward track or zoom in a film, the experience of looking out the front windshield of a car, especially on hills or curves, can feel delirious.” (Mitchell Schwarzer, *Zoomscope: Architecture in Motion and Media*, (Princeton: Princeton Architectural Press, 2004), 98.)

<sup>260</sup> Paul Virilio, “The Third Window: An Interview with Paul Virilio,” *Global Television*, Ed. Cynthia Schneider and Brian Wallis (New York: Wedge Press, 1988): 185-197.

<sup>261</sup> Dominique Paini, “The Wandering Gaze: Hitchcock’s Use of Transparencies,” 54.

automobility and rear-projection: concrete/abstract, real/unreal, interior/exterior. As Paini explains, it is “easy to understand the multiple associations linking the device to the portrayal of the unconscious, as well as why Hitchcock’s work, halfway between reality and dreams, resorts to it so frequently.”<sup>262</sup> What neither Paini nor any of the subsequent scant handful of writers who wrote about rear-projection have addressed is Hitchcock’s visceral use of the device to create an embodied experience of automobility on screen for the Traveler-Spectator, particularly in a trio of films starring Cary Grant: *Suspicion* (1941), *Notorious* (1946) and *North by Northwest* (1959).

In the final five minutes of *Suspicion*, we are trapped in the confines of a car speeding down the winding curves of a cliff overlooking the sea with Lina Aylesworth (Joan Fontaine) in the passenger seat and her unhinged husband, Johnny (Cary Grant), at the wheel. The entire film is shot from Lina’s point-of-view, with her at the very center of the film, appearing in every scene. So, after spending the previous 90+ minutes of the film building our doubts and suspicions of his character as they build in Lina, the spectator’s suspicion, like Lina’s, is that he is going to try to kill her. The sequence opens with a wide establishing shot of the car speeding towards us on a seaside road, shot on location. As it drives past the camera, disappearing out of frame in the lower right hand corner of the screen there is a cut, and we have suddenly been transported back to the studio in Hollywood, now viewing a process shot of the two actors in a convertible, framed behind the windscreen. The seaside road is now seen perfectly centered on the rear-projection screen behind the couple in car as it rocks insistently, supplying a phantom ride for the Traveler-Spectator, albeit one seen only on the top half of the screen behind them.

The focus of the background plate is slightly off and slightly soft, literally one generation removed from the sharpness of the actors in the car in the foreground, as it is now being photographed for the second time. This slippage in sharpness and generation reflects the mental state of the nervous Lina in the passenger seat, where everything is simultaneously heightened

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<sup>262</sup> Dominique Paini, “The Wandering Gaze: Hitchcock’s Use of *Transparencies*,” 69.

and unreal. This state of paranoia and suspicion is heightened when Johnny reaches across her to open then slam her door shut. This simple act – ostensibly to make sure her door is latched – only unhinges her further, also acting to call our attention to the potential failure of automobility; a breakdown in one of the essential boundaries between nest and shell. With the slam of the door there is another cut, and it is in this third shot of the sequence that we are explicitly aligned with Lina’s positioning in the passenger seat, looking through the front windscreen, just past the rearview mirror and front left fender, at the curving road of the steep cliff ahead. Again, we are on the phantom ride – as provided by rear-projection – only now seen through the front windscreen, giving us access to the dizzying and delirious experience of automobility in the cinema. The fact we are in an English car on English roads means that Fontaine’s character is in the passenger seat on the left-hand side of the car, and the car is on the left-hand side of the road (from our perspective), so she is nearest the edge of the cliff. This unfamiliar perspective to American audiences only acts to heighten the suspense and our own bodily discomfort at experiencing automobility at such an odd and unfamiliar angle. Seen from Lina’s POV, the point where the frame of the windscreen joins with the frame of the door on the left side of the frame is pressed so close to us it is out of focus, looming just within reach, making it seem as if the nest is closing in on us. This effect limits our field of vision to the confines of what is in the frame – this dangerous perspective of the curving cliffside road ahead – and explicitly aligns the windscreen with the rear-projection screen, equating the two fields of vision. Seen from this point of view, the hood of the obviously fake car that juts into our view of the phantom ride registers more as a mere extension of the frame than part of the shell which acts to keep us safe.

The repeated ECU’s of the speedometer not only track our increasing velocity as a measure of unsafety, but also provide a ghostly reflection of the landscape speeding by thanks to a traveling matte superimposed over its glass. This image is perhaps the most Expressionistic element of the entire sequence. After all, the glass-covered dial should reflect a POV of the road

behind them, or of the actors themselves, both of which are positioned at a 180-degree angle to the dashboard, not a traveling POV of the cliffside, which would somehow necessitate a reflection of 90-degrees (!). As a result, the speedometer registers as another form of windscreen, offering an otherwise impossible POV accessible only via special effects, that acts to reflect the inner state of Lina in the passenger seat. The only other close-up in the sequence is a brief shot of Johnny's hands at the wheel. This too is seen from Lina's POV in the passenger seat as the hands change from a relaxed position on the wheel to a determined grip, hinting at the intensification of automobility that soon lies ahead. Again we recall Merleau-Ponty's notion of the habit with respect to automobility on screen, especially when heightened by the use of POV shots and/or close ups. But here, rather than supplying us with a tactile experience of the wheel, the scene instead acts to remind us of our distance from any semblance of control, a helpless Traveler-Spectator denied any active access to automobility, bound as we are to the helpless body of Lina in the passenger seat.

In *Notorious*, it is Cary Grant's character, Devlin, watching calmly in the passenger seat as an intoxicated Alicia Huberman (Ingrid Bergman) at the wheel puts both of their lives in danger. Again, the sequence begins with a wide establishing shot of the car, this time on an oceanside road shot on location – only this time the car is weaving dangerously. As soon as the car zooms past the camera and disappears off-screen (this time on the lower left hand corner), there is a dissolve and once again we have been transported back to the studio, now viewing a process shot of the two actors in a convertible, framed behind the windscreen. As in *Suspicion*, the oceanside road is now seen on the rear-projection screen behind the couple in car as it rocks insistently, supplying a phantom ride for the Traveler-Spectator, albeit one seen only on the top half of the screen behind them. With a screech of the wheels there is a jumpcut and suddenly we are inside the vehicle with the pair, and the windscreen is no longer visible. Alicia is now gleefully out of control at the wheel, as Devlin's relative sense of calm in the passenger seat only acts to inspire an increase in speed and reckless behavior in her. Apparently unseen by her, we

are supplied with several close ups of Devlin's hand hovering ever near the steering wheel and/or the gearbox on the steering column, suggesting to the viewer that he could and very well may assert power over their automobility at any time.

Again our view of the road is a phantom ride supplied through the means of rear-projection. Only this time, while aligned explicitly with the windscreen, we never see its frame. Instead, we are pushed in so close to it that the steering wheel at the bottom of the frame is experienced as an out of focus shadow defining the foreground space of the studio. Beyond it we can just make out the point of the hood of the car (and its ornament) jutting forward; this combined ensemble acts as the closest thing we get to a frame on this view, taking up no more than one-quarter of the bottom of the screen. As a result, our experience of automobility here is more open, far closer to a true phantom ride than what we were offered in *Suspicion*. This, after all, is a view from the driver's seat, seen through the drunken eyes of Alicia. The threat here, and subsequent suspense, is supplied by the alcohol coursing through her system rather than a driver with possibly murderous intent. Our alignment with Alicia goes further than her visual point of view, becoming embodied and quite supple in the startling shot where our phantom ride becomes obscured and literally entangled with her hair. As it is happening, we don't know what exactly it is we are seeing; cause and effect are spelled out to the viewer only after the shot has come and gone (The drunken Alicia slurs her complaint in the close up that follows, "This fog...gets me." Followed by a close up shot of him explaining: "It's your hair in your eyes.") Retroactively we realize: the shadowy tendrils that were obscuring our vision, marked the experience of the phantom ride with our bodies as well as our vision. Of course those tendrils can also be read as a manifestation of the effects of alcohol, confusing body and space, as well as obscuring vision, again also working on the Expressionistic level which Hitchcock is so good at. But it is the physicality that is so striking here; the layering of her hair suggests an intimacy with

this experience of automobility; the sort of closeness and sensuousness associated with a haptic view rarely seen in cinema from that period.<sup>263</sup>

In *North by Northwest*, the set-up is different from the previous two films – with baddies Leonard (Martin Landau) and Valerian (Adam Williams) literally pouring whiskey down the throat of our reluctant hero, amateur detective Roger Thornhill (Cary Grant), under the orders of smooth-talking villain Phillip Vandamm (James Mason). They then prop his barely conscious body behind the wheel of a Mercedes. Once again the setting is a convertible on a winding road on the side of a steep cliff overlooking the ocean. The journey begins with Valerian driving the car from the passenger seat as Thornhill is slumped over in the driver's seat. Once again, the passenger door is ajar, this time by choice so the villain can jump out before the car goes over the side of the cliff as he intends. But before that can happen, Roger Thornhill awakens enough to see what's going on, and shoves the villain out of the still slow-moving car. Thornhill's first POV through the windscreen is a view that repeats throughout the three-minute sequence: his alcohol-impaired POV suggested by veering zooms into the phantom ride of the cliffside drive seen ahead. Only here, Hitchcock uses a matte of the front of the car superimposed over the phantom ride rather than rear-projection as he did in his earlier films. Here it is the matte that stands in for the car body, supplying the shadowy outline of the hood and the tell-tale Mercedes hood ornament. As in *Notorious*, we never see the actual frame of the windscreen, so once again the shadowy body of the car acts simultaneously as our frame of vision for the phantom ride, and as extension of Thornhill's own body. All of this works as a measure of the ensemble known as the Driver-Car, and the stand in for our own bodies as Traveler-Spectators.

In the second use of this POV, a shot meant to suggest the car veering violently towards the water, the shadowy hood of the car and Mercedes ornament pans to the left of the phantom

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<sup>263</sup> My use of the concept of "haptic" here is informed by Laura Marks' book, *The Skin of the Film: Intercultural Cinema, Embodiment, and the Senses* (Durham, NC: Duke University Press, 2000). As she explains: "My definition of visual tactility, however, has little to do with physical texture and mainly to do with the way the eye is compelled to 'touch' an object in the way I have described." (173)

ride of the fast-approaching cliff and coastline. The effect is oddly visceral, unnerving and somehow...unnatural. When the camera pans, the illusion created by the fusion of the matte and phantom ride is disturbed for those few seconds. Instead of seeing the scenic vista projected on it, it is as if we see the screen itself; as if the rear-projection screen seems to be our final destination – specifically the bottom left hand corner the camera jerks to focus on. The view that follows is even more bizarre: looking past the spinning wheel – in ECU taking up the bottom third of the screen – at the waves crashing below on the rear-projection screen. The reaction shot that follows, fairly close on Thornhill's skeptical face, registers as a laugh for the audience more for its moment of self-reflexivity – with the actor Cary Grant seeming to almost wink at the audience – than the drunken disbelief of the character Roger Thornhill.

The rest of the sequence plays out in shot/reverse shot form, alternating shots of the drunken Thornhill at the wheel hilariously battling the challenges presented to him on the road, and his drunken POV of winding road ahead, the cars he barely passes and oncoming traffic he narrowly avoids. The views through the front windscreen are a mix of the combination of the matte of the front hood laid over the phantom ride of the road ahead and shots of the car hood positioned in front of the rear-projection screen. (When rear-projection is used, you can see a distorted image of whatever is being projected on the hood of the fake car, while the matte features a more abstracted shadowy outline of the car hood; as though its automobility had been pared down its most basic geometrical properties.) The reverse shot, which dominates the sequence, features the manic, drunken driving of Thornhill in the foreground and the phantom ride behind him seen via rear-projection. This confusion of the spaces of the road (as photographed by Hitchcock's second unit), the car in the studio, and the combination of the special effects of rear-projection and mattework results in a cumulative effect of a confusion of automobility itself. The Traveler-Spectator either marvels over the jumble of effects as s/he would a daunting puzzle, wondering how all the pieces possibly fit together; or, alternately, rejects the sequence altogether because of the entirely artificial nature of automobility presented

here (as many critics have over the years). Ultimately, the confusion of views and special effects all act to align us with the alcohol-impaired perspective of automobility that Thornhill is having, culminating with the road seeming to split in two, thanks to a second phantom ride of a curving road being laid over the first via double-exposure.

Along the way we are also offered occasional views of the two thugs in their (enclosed) car following close behind, upping the suspense quotient, and the stakes for this unconventional chase sequence. In their enclosed automobile, the phantom ride through the road behind them barely registers, confined to a tiny oval behind their two heads. While seeming to suggest a greater sense of stability and mastery over their automobility, it also grounds them more solidly to the studio setting, separating them from the experience of the road to such an extent they barely seem a threat to Thornhill. Here, as in *Notorious*, the real threat of the sequence is the alcohol that has impaired Thornhill's senses. Meanwhile, the real thrill of the sequence is one of the purest experiences of a phantom ride in fifty years. While this is certainly an updated version, using editing to stitch it into a narrative film, and align our experience of it with Thornhill's in the driver's seat (as opposed to the purely first person perspective offered in a single shot that first defined the genre sixty years earlier), most of the three-minute sequence are stunning views of the road offering the Traveler-Spectator a truly thrilling ride. Interestingly, while both *Suspicion* and *Notorious* also offer us shots suggesting a panoramic perspective,<sup>264</sup> in *North by Northwest*, we experience automobility only as a phantom ride – gaining POVs only of either the route ahead or the one behind. This is probably the closest a viewer gets in this time period to the dromoscopic perception that Virilio and Schwarzer describe, plunging us into an environment in a sort of “headlong immersion”. Each time the view through the windscreen is a view of the cinema itself, a film within a film, and each time a traveling shot or phantom ride that can only be accessed through the frame that holds the windscreen in place – whether it is

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<sup>264</sup> In *Suspicion* we see shots of both Grant and Fontaine in profile; behind Grant we see the immanently solid and formidable backdrop of a mountainous landscape in rear-projection, while behind Fontaine we see the threatening drop off the side of the cliff into the waters below. In *Notorious*, the only time(s) we are offered a panoramic perspective is when the motorcycle cop pulls up alongside the car to pull them over, and after the car has stopped. In the background we now see a shot of the coastline behind him where the only movement are the palm trees swaying in the breeze on the rear-projection screen.



situated on a car on the studio soundstage or shot on location giving the Traveler-Spectator access to real roads.

### **THE FEEL / DREAM / SCREEN OF THE ROAD**

To get phenomenological about it: the feel of the road is what assures us that we are still on it, whether it is the rough-hewn surface of concrete, pock-faced blacktop, or the steady shower of gravel and accompanying sway. The sensation involves a complicated and circuitous pathway – from the surface of road through the tires, then shock-absorbers, mounted to the chassis, the cockpit mounted to that, the interior, seats on springs wrapped in cushion then fabric. All these attempts to mute the sensation of driving are, marked by so many millions spent on producing ‘the smoothest ride’. (An alternative history of the automobile industry could be told through the lens of the manufacture of comfort.) This returns us to Bachelard, the conceptualization of the nest within a shell as a safe place to dream, and the idea that “when we dream, we are phenomenologists without realizing it.”<sup>265</sup>

But the dream of *the road* is quite different.

To French philosopher and sociologist Jean Baudrillard, the *road* is the screen; a discovery he made on his first trip to Los Angeles. This is something quite different from the other philosophers and scholars cited in this study – Virilio, Friedman, Ross, Elsaesser, even Schivelbusch – who mobilize the windscreen/windshield (either the glass or its frame) as the screen. Note that Baudrillard here is calling it a *refraction* of a giant screen, and not a *reflection*. Herein lies the value of such a model. Considering the webwork of roads that marks, divides, and defines a countryside as a distortion or a deflection of a giant screen is a powerful model. The presence of the road itself distorts everything that surrounds it. It opens up a countryside to viewing. It reconfigures a landscape as spectacle, and does the same for other cars, and other

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<sup>265</sup> Gaston Bachelard, *The Poetics of Space*, 103.

travelers. Breaking it down in this way is revealing insofar as it relates to Baudrillard's near-lifelong project of unraveling, exposing, and decoding the simulacrum. As Baudrillard sees it:

The city was here before the freeway system, no doubt, but it looks now as though the metropolis has actually been built around this arterial network. It is the same with American reality. It was there before the screen was invented, but everything about the way it is today suggests it was invented with the screen in mind, that is the refraction of a giant screen.<sup>266</sup>

The clearest cinematic manifestation of this idea appears in *Koyaanisqatsi* (Godfrey Reggio, 1982). Here we see the webwork of Los Angeles roads Baudrillard is writing about only a few years later abstracted through sound and vision, and experienced by the Traveler-Spectator as a hypnotic system of lights and shells at hyper-velocities. Here we see all the layers of the meaning of “refraction” revealed. Sped up in the camera, the system of roads are revealed as arteries for travel, alternately flowing and slowing, appearing very literally as bending rays of light or pure refraction. The “deflection from a straight path [...] passing obliquely from medium into another”<sup>267</sup> is a proven scientific theorem on screen. These are the literal life-forces of the city, with each nest encased in a shell, housing a member (or members) of a community of Driver-Cars that makes up the “arterial network” that is both sustaining the city and simultaneously choking it with its emissions. The powerful environmental message of the film embedded in the driving sequences illustrates the paradox of the dangerous allure of automobility. The “action of distorting an image by viewing through a medium”<sup>268</sup> of film reveals truths to the Traveler-Spectator that are not apparent when traveling these roads as a driver or passenger. By the end of the film these roads that are pathways dissolve to a series of computer circuits, seen in extreme close up, reflecting and indeed refracting images of the city, also divided and defined by the pathways that cut through its surface. The definition of a “change in the apparent position of a celestial body due to the bending of the light rays”<sup>269</sup> is no

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<sup>266</sup> Jean Baudrillard, *America*, Trans. Chris Turner (London: Verso, 2010 [1988]), 57.

<sup>267</sup> “Refraction.” *Merriam-Webster.com*. 2020. <https://www.merriam-webster.com> (November 27, 2020).

<sup>268</sup> “Refraction.” *Merriam-Webster.com*. 2020. <https://www.merriam-webster.com> (November 27, 2020).

<sup>269</sup> “Refraction.” *Merriam-Webster.com*. 2020. <https://www.merriam-webster.com> (November 27, 2020).

exaggeration here. Forecasting the Anthropocene decades before anyone was discussing the imminent end of the world, *Koyaanisqatsi* offers a vision of the world that portrays roads as a screen that reveals and refracts the truth of automobility; that our insistent reliance on it is what propels us towards an apocalyptic end, and sooner than later. There is no longer such a thing as a “safe distance”. In *Koyaanisqatsi* it is precisely because we are able to view the world at such a distance that reveals what we cannot see in close up, i.e. all the meanings embedded in the Hopi Indian word that provides the film’s title: “1. crazy life. 2. life in turmoil. 3. life out of balance. 4. life disintegrating. 5. a state of life that calls for another way of living.”<sup>270</sup>

Returning to our phenomenological framework will be greatly enlightening when considering this curious relationship of distance and scale from the unique vantage point of the automobile. Bringing Bachelard back into our discussion illuminates how this moves us both phenomenologically and emotionally. “Distance disperses nothing but, on the contrary, composes a miniature of a country in which we should like to live,” he tells us; “In distant miniatures, disparate things become reconciled. They then offer themselves for our ‘possession’ while denying the distance that created them. We possess from afar, and how peacefully!”<sup>271</sup> He goes on to specify: “Distance too, creates miniatures at all points on the horizon, and the dreamer, faced with these spectacles of distant nature, picks out these miniatures as so many nests of solitude in which he dreams of living.”<sup>272</sup> Encased within the shell of the automobile these “nests of solitude” that Bachelard describes are the multitude of lives and narratives that become available to the traveler, same as they do to the spectator in the cinema, in the comforts of one’s own home in front of the television, or on the go in the palm of your hand as it cradles your precious smartphone. The appeal is the same, even if the proportions of scale are inverted.

To think about roads is to think about scale, and to ask questions like: How does the road affect our perspective of what surrounds it? How does our perspective change as we drive into

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<sup>270</sup> This list of meanings of the Hopi word “koyaanisqatsi” appears in the title card that closes the film.

<sup>271</sup> Gaston Bachelard, *The Poetics of Space*, 172.

<sup>272</sup> Gaston Bachelard, *The Poetics of Space*, 172.

the countryside or city or suburbs? Does our POV act in a sort of conspiracy with perspective to miniaturize its surroundings? These questions, of course, date back to a time before automobiles, to the invention of the railroad and its subsequent normalization in the 19<sup>th</sup> Century, when the world seemed to both shrink and expand. As Schivelbusch explains:

The dialectic of this process states that this diminution of space (i.e., the shrinking of transport time) caused an expansion of transport space by incorporating new areas into the transport network. The nation's contraction into a metropolis [...] conversely appeared as an expansion of the metropolis: by establishing transport lines to ever more outlying areas, the metropolis tended to incorporate the entire nation. Thus the epoch of the suburbs, of the amoebic proliferation of the formerly contained cities into the surrounding countryside, began with the railroads.<sup>273</sup>

With the new transport network that accompanied automobility, the world both shrank and grew even further and faster. The proliferation of roads, expanding exponentially by the middle of the Twentieth Century, meant a trip downtown, or back to suburbia, or to the next town, or even the next state, became quicker and easier than ever before. But with the corresponding increase in vehicles on the roads came an increase in travel time for many in densely populated metropolitan areas. Both cases call attention to the unique time-space enabled once we have joined with the assemblage of the nest and shell, becoming the Driver-Car.

Either way, the first question in any trip remains the same: *How much time will it take me to get from Point A to Point B...?* In 2020, you plug the location into your phone and as you wait for the results you pull the seatbelt across your lap, adjust the seat, the steering wheel, fidgeting with as many aspects of micromanaging your comfort as it takes for Google Maps to come up with the calculations. The route plotted shows up in a map on screen, a thick blue line carved into a non-distinct grid of gray on gray. The number in red at the bottom of screen, by far the biggest and most distinct figure on the screen, suggests with some certainty the amount of time it will take you to get there. (The number of actual miles is tiny, in the same nondescript gray as the grid of streets on the map; an incidental detail, and easy to miss.) So you hit start, and the countdown begins before you even put the car into gear. You plan that trip based on that

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<sup>273</sup> Wolfgang Schivelbusch, *The Railway Journey*, 35.

number, might even plan your entire day around that trip. Only, as it turns out, that number isn't based on Pacific Standard Time, nor Greenwich Mean Time, nor any standard of time determined by clocks or watches or timers.

No. This is drive time. And it is elastic.

It didn't originate with the Xerox Parc Map Viewer, the first web mapping site in 1993, nor with MapQuest, the first online web mapping service in 1996. Nor does it begin with the onset of automobility itself a century before that, or even the locomotive ninety years before that. No, this sense of time is as old as the road itself. Though its peculiar measure is not really quantified and examined until the 19<sup>th</sup> century with French philosopher Henri Bergson, and his conception of *durée* ('duration' in English, though not with the same reflective, philosophical weight<sup>274</sup>). As Bergson describes: "The duration lived by our consciousness is a duration with its own determined rhythm, a duration very different from the time of the physicist, which can store up, in a given interval, as great a number of phenomena as we please."<sup>275</sup> He points out that a conception of objective time, homogenous time is a "fiction," stressing that "in reality there is no one rhythm of duration."<sup>276</sup> In *The Railway Journey*, Wolfgang Schivelbusch invokes Bergson's discoveries with regard to travel on a locomotive.

What Bergson called the *durée* (duration, the time spent getting from one place to another on a road) is not an objective mathematical unit, but a subjective perception of space-time. The dependence of this perception on transport technology illustrates Durkheim's notion that a society's space-time perceptions are a function of its social rhythm and its territory. 'What is decisive,' says Erwin Straus, discussing the psychology of distances, 'is not the objectively measured distance, but the relation of such distance to potentiality.' Transport technology is the material base of potentiality, and equally the material base of the travelers's space-time perception. If an essential element of a given sociocultural space-time continuum undergoes change, this will affect the entire structure; our perception of space-time will also lose its accustomed orientation.<sup>277</sup>

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<sup>274</sup> The pun is intentional here. ("Wait" and "weight".)

<sup>275</sup> Henri Bergson, *Matter and Memory*, Trans. Nancy Margaret Paul and W. Scott Palmer (New York: Zone Books, 1991 [1896]).

<sup>276</sup> Henri Bergson, *Matter and Memory*, 207.

<sup>277</sup> Wolfgang Schivelbusch, *The Railway Journey*, 36.

What Schivelbusch is offering here is essentially a hybridization of Bergson and Erwin Straus (via Èmile Durkheim). Straus, a particular favorite of Schivelbusch, was a neurologist and phenomenologist contemporary to Merleau-Ponty and Bachelard, but far less known. His 1963 book, *The Primary World of the Senses: A Vindication of Sensory Experience* is cited several times in *A Railway Journey*, most notably a section devoted to the relationship of time and the landscape experienced in a train (obviously influencing a good portion of Schivelbusch's book). As Schivelbusch points out: "Straus sees the railroad as the essential agent of the transformation of landscape into geographical space."<sup>278</sup> Or, as Straus himself explains:

The modern forms of traveling in which intervening spaces are, as it were, skipped over or even slept through, strikingly illustrate the systematically closed and constructed characters of the geographical space in which we live as human beings. Before the advent of the railroad, geographical connections evolved, for the traveler, from the change in landscape. True, today the traveler also goes from place to place. But now we can get on a French train in the morning, and then, after twelve hours on the train (which is really being nowhere) we can get out in Rome. The old form of traveling provided for a more an better balanced relationship between landscape and geography.<sup>279</sup>

The disconnect that both Straus and Schivelbusch are addressing are of course due at least in part to relinquishing control to the engineer of the locomotive. There is a certain passivity demanded of all train travelers, wherein only trained professionals are allowed to do the driving. However, the continued dream of automobility is piloting yourself wherever and whenever you want – which of course feeds the popularity of automobility from its very point of origin. This also feeds the feeling of it "really being nowhere" as Straus describes – as opposed to the comforts and security that the nest in the shell of automobility offers. Both travel options offer similarly altered conceptions of space-time – measured in terms of duration rather than distance, i.e. the duration of a trip or a journey, measured in the time it takes to experience it rather than the physical distance measured in feet or kilometers or miles. In this, it is like the

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<sup>278</sup> Wolfgang Schivelbusch, *The Railway Journey*, 53.

<sup>279</sup> Erwin Straus, *The Primary World of Senses: A Vindication of Sensory Experience*, Trans. Jacob Needleman (New York: The Free Press of Glencoe, 1963), 319.

cinema and the time of the Traveler-Spectator. For in the cinema, too, the *durée* is not measured in the distance traveled, but in our experience of it.

Another quantification of this special time-space of the both traveler and the Traveler-Spectator, especially applicable to this study, comes in the form of the *chronotope* – a concept introduced in the late 1930s by Russian philosopher and literary critic Mikhail Bakhtin’s essay in the author’s seminal book, *The Dialogic Imagination*. Here is how he describes the concept:

We will give the name *chronotope* (literally ‘time space’) to the intrinsic connectedness of temporal and spatial relationships that are artistically expressed in literature. This term (space-time) is employed in mathematics, and was introduced as part of Einstein’s Theory of Relativity. The special meaning it has in relativity theory is not important for our purposes; we are borrowing it for literary criticism almost as a metaphor (almost, but not entirely). What counts for us is the fact that it expresses the inseparability of space and time (time as the fourth dimension of space). [...] In the literary artistic chronotope, spatial and temporal indicators are fused into one carefully thought-out, concrete whole. Time, as it were, thickens, takes on flesh, becomes artistically visible; likewise, space becomes charged and responsive to the movements of time, plot and history. This intersection of axes and fusion of indicators characterizes the artistic chronotope.<sup>280</sup>

For Bakhtin, it is the *chronotope of the road* that provided the clearest textual expression of the linkage of time and space in Western culture. As he goes on to explain:

Of special importance is the close link between the motif of meeting and the chronotope of the road (‘the open road’), and of various types of meetings on the road. In the chronotope of the road, the unity of time and space markers is exhibited with exceptional precision and clarity. The importance of the chronotope of the road in literature is immense: it is a rare work that does not contain a variation of this motif, and many words are directly constructed on the road chronotope, and on road meetings and adventures.<sup>281</sup>

Reading this, it is easy to see the clear application of the chronotope of the road to the *road movie*, a genre that maps both its narrative and character development very literally along the trajectory of the road (which will be addressed in Chapter Four), and the noir films and proto-road movies I have been examining in this chapter. As authors Alexandra Ganser, Julia Pühringer and Markus Rheindorf describe in their article, “Bakhtin’s Chronotope on the Road:

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<sup>280</sup> Mikhail Bakhtin, “Forms of Time and Chronotope in the Novel,” *The Dialogic Imagination: Four Essays by M.M. Bakhtin*, Ed. Michael Holquist, Trans. Caryl Emerson and Michael Holquist (Austin: University of Texas Press, 1981), 84.

<sup>281</sup> Mikhail Bakhtin, “Forms of Time and Chronotope in the Novel,” *The Dialogic Imagination*, 98.

Space, Time and Place in Road Movies Since the 1970s,” “the chronotope serves as a means of measuring how, in a particular age, genre, or text, real historical time and space as well as fictional time and space are articulated in relation to one another.”<sup>282</sup> For them, the chronotope operates on two important levels: “first, as the means by which a text represents history; and second, as the relation between images of time and space in the text, out of which any representation of history must be constructed.”<sup>283</sup> To them, it is this indexicality of ideology that allows them to apply their study to the genre of the road movie. With the chronotope of the road the emphasis is always on the encounter; “meeting, separation, collision,” as Bakhtin specifies; or, in the context of the road movie, “where people separated by social and spatial distance can accidentally meet,” as described by Ganser, Pühringer and Rheindorf. Similarly, Gilberto Blasini mobilizes the chronotope to analyze road movies in his dissertation because of “how it lays down the foundations for apprehending narrative construction and organization, their relationship to genericity, as well as the textual articulation of time and space.”<sup>284</sup>

Looking back at the proto-road movies of the 1930s and ‘40s through Bakhtin’s lens we see that the chronotope of the road is what structures *It Happened One Night*, *The Grapes of Wrath* and *Sullivan’s Travels*. In each film it is the access to the road and the unique time-space it presents that brings our characters together, who, originating from such different worlds, would otherwise never meet. In *You Only Live Once* and the noir films that follow like *They Live by Night*, *Gun Crazy* and *Kiss Me Deadly* it is the characters’ access to automobility that enables them to live outside of the time-space of the world they travel through; at the same time the chronotope of the road holds them suspended from the outside world’s limitations and laws. In *Psycho* it is the chronotope of the road that puts Marion Crane’s world in a kind of suspension, and which ultimately allows her access to the Bates Motel and Norman and Mother and

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<sup>282</sup> Alexandra Ganser, Julia Pühringer, Markus Rheindorf, “Bakhtin’s Chronotope on the Road: Space, Time and Place in Road Movies Since the 1970s,” *Linguistics and Literature* Vol. 4, No. 1 (2006), 2.

<sup>283</sup> Ganser, Pühringer, Rheindorf, “Bakhtin’s Chronotope on the Road: Space, Time and Place in Road Movies Since the 1970s,” 2.

<sup>284</sup> Gilberto Blasini, “Fasten Your Seat Belts [...]”, 31-32.



Marion's fate at his/her/their hands. The use of rear-projection in all these films serves to heighten this feeling of suspension to the Traveler-Spectator; in this way its use is always Expressionistic, recreating the experience of time-space the traveler in an automobile feels while in the chronotope of the road. As Laura Mulvey explains: "Through its very nature, rear-projection folds one time/space level into another, as that of the 'setting' is asynchronous with that of the figures in the studio foreground."<sup>285</sup> It is precisely this asynchronism that situates the Traveler-Spectator in the chronotope of the road with these foregrounded characters in the car being photographed in the studio setting.

The opening sequence of *Detour* (Edgar G. Ulmer, 1945) situates us in the time-space of the road with a phantom ride through the Southwest looking backwards as opening credits roll. As David Laderman points out, the opening credit sequence already gives away the entrapment of the film, with its "series of traveling shots that, though traveling forward, look backward down the highway at a bleak desert landscape. Aside from announcing the narrative significance of the road (and in fact framing the narrative with road imagery), the credit sequence foreshadows the story's fatalistic sense of entrapment."<sup>286</sup> When the credits end there is a quick fade to black, then we meet the fated center of the film's narrative walking on the side of the road at night; neither hero nor anti-hero nor villain, Al Roberts (Tom Neal) is a victim of automobility. One quick dissolve later he is in the passenger seat thanking his latest/nameless driver for picking him up as they drive under the sign welcoming them to Reno, Nevada. The scene, clearly shot on a soundstage with the phantom ride into Reno seen behind the characters via rear-projection, serves to further heighten the sense of entrapment Laderman mentions. As Vivian Sobchack points out, *Detour's* use of rear-projection "makes noir's abstract themes of claustrophobia and entrapment [...] spatially concrete."<sup>287</sup>

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<sup>285</sup> Laura Mulvey, "Rear-Projection and the Paradoxes of Hollywood Realism," 211.

<sup>286</sup> David Laderman, *Driving Visions: Exploring the Road Movie*, 31.

<sup>287</sup> Vivian Sobchack, "Driving in a Back Projection," 117.

The liminal time-space of the roadside diner, itself shaped like a train car, where we see Al Roberts next, suspends him in space and time – no longer moving, but not quite off the road, and still in a space dedicated to travel. The food, served fast, the swiveling stools sans backs lining the counter (and no tables and chairs), all act in conjunction to streamline the business of eating so customers can be sent back to the road as quickly as possible. Like the chronotope of the road, which enables the encounter of the hitchhiker with a series of drivers and travel options varying in distance and direction, the diner too offers similar opportunities. The talkative truck driver who offers Al a ride before he even asks, prompts Al to snap. But it is his musical selection that triggers Al's memory, transporting him back in space and time, instigating the film's narrative in flashback, starting with the set-up of the film before his trip – working as a pianist at a New York City nightclub, his romance with the singer, Sue (Claudia Drake), before she decided to go to Los Angeles to 'make it big' – all in all, a happier time and place before Al was absorbed by the chronotope of the road. The economical backstory lasts barely ten minutes on screen. The shift is signaled by a dissolve to a map where New York City is marked with a star; the camera pulls back to indicate the scale of the journey, the blur of the camera move dissolves into a heroic up-angle shot of Al with his thumb extended. "The only way I could cross country was to thumb rides," he announces in voiceover, signaling his instantaneous acquiescence to the rules of the road, and with it, its unique chronotope.

Al's initiation into the chronotope of the road is represented by a montage stitching together three repeating elements: tracking shots following Al's legs walking the road (as a map is superimposed over them), static shots of Al standing on the side of the road with his thumb out, and process shots with Al riding in a series of vehicles with a series of strangers as their phantom ride of the road plays out in rear-projection behind them. For the hitchhiker, access to automobility is necessarily equated with the encounter. In noir films like *Detour* (as well as *The Devil Thumbs a Ride* (Felix Feist, 1947) and *The Hitch-Hiker* (Ida Lupino, 1950)), this encounter is further equated with danger. In each film, the invitation to a stranger on the side of

the road into the intimate space of the nest of the automobile results in betrayal of the basic contract between hitchhiker and Driver-Car – the idea that doing a good turn by sharing access to automobility, will necessarily ensure safety for all involved. In noir films, that betrayal always begets violence. As Al explains in voiceover: “Thumbing rides may save you bus fare, but it’s dangerous. You never know what’s in store for you – until you hear the squeal of brakes. If only I’d known what I was getting into that day in Arizona...”

When Al is picked up by Charles Haskell Jr. (Edmund MacDonald) there is a shift signaled to the Traveler-Spectator by the break with the montage that set up the hitchhiking sequence. The thirteen-minute sequence that follows takes place almost entirely in Haskell’s automobile. As with the similarly lengthy, immersive sequence in *Psycho* discussed earlier, the Traveler-Spectator is absorbed into the world of automobility. The shift in time-space signifies a shift from the chronotope of the road to a different, but related time-space – the *chronotope of automobility* – a concept I am introducing here to address the peculiar time-space we inhabit only in our automobile; a time-space that uniquely separates the point of origin from destination, home from work, public from private. This is where we file concepts like “drive time” and “traffic” – in the urban colloquial sense of these phrases – i.e. time-spaces we find ourselves stuck in that simultaneously quantify the state of the roads (often choosing to avoid getting into our cars because of it, or mentally preparing ourselves to face it). The chronotope of automobility does not exist as something outside of the chronotope of the road; on the contrary, the two work in conjunction with one another. As Bakhtin tells us, each

chronotope can include within it an unlimited number of minor chronotopes; in fact, [...] any motif may have a special chronotope of its own. [...] Chronotopes are mutually inclusive, they co-exist, they may be interwoven with, replace or oppose one another, contradict one another or find themselves in ever more complex interrelationships.”<sup>288</sup>

While the chronotope of the road provides the traveler in his/her car and the Traveler-Spectator in the cinema with intersections of sociality, infinite possible meetings, communions or

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<sup>288</sup> Mikhail Bakhtin, “Forms of Time and Chronotope in the Novel,” *The Dialogic Imagination*, 252.

conflicts, the *chronotope of automobility* keeps them both at a distance from one another – each of us isolated in our nest within a shell as we circulate through a community of equally encased drivers.

For Al Roberts, in *Detour*, the switch from the chronotope of the road to the chronotope of automobility results in transformation. His first step in the process is access to the private storage space of the glovebox, which Haskell asks him to open and get out his mysterious box of pills. Seconds later, the next step is taken: Haskell asks him to hold the wheel while he takes his medication. While Haskell still powers the car from the driver's seat, foot on the gas, it is Al's hand that has reached into the frame, both controlling navigation and responsible for keeping the car on the road. Seconds later we have fast-forwarded an hour in diegetic time (as Al relates in voiceover); now it is dark, and Al's link to automobility has grown. Looking over and between the shoulders of the two men we see the road ahead through the windscreen, now illuminated by the car's headlights. We also see the upper half of Al's face reflected in the rearview mirror, another step in his appropriation of the assemblage (or, conversely, its appropriation of him). As Haskell relates stories of his scrapes and scars – the first, the result of the woman hitchhiker he picked up earlier, the second, the supposed result of a childhood battle involving sabers – each time there is a cutaway to a shot behind the men we again see Al's face reflected in the mirror. After a brief stop at another roadside dinner Al finds himself in the driver's seat for the first time. "I drove all night while Haskell slept like a log," he tells us in voiceover. As Haskell sleeps, Al's transformation becomes complete; he is now the Driver-Car, a role that Haskell will never resume; in fact, he will never wake up. Considered in this way, the transformation here is like something out of a horror film; in fact, it is an almost exact precursor to the kind of takeover we will see a decade later in *Invasion of the Body Snatchers* (Don Siegel, 1956), albeit entirely through the terms of automobility.

Now behind the wheel, snug in the nest, Al, as the Driver-Car is free to dream just as Bachelard describes. Introduced by a striking optical effect, the dream sequence seems to shoot

out of the rearview mirror where we saw Al's illuminated face only seconds before. Now we see his waking dream of Sue's successful future is an Expressionistic musical number framed in canted angles and exaggerated shadows. While not possible in the chronotope of the road, which hinges on the encounter with the other, the chronotope of automobility suspends time and space, enabling and even encouraging dreaming, seen here in Bachelardian splendor.

It is only the natural element of rain that reconnects Al's mind with his body in the driver's seat. Failing to rouse the seemingly still sleeping Haskell, Al struggles to put the ragtop of the convertible up on his own. When he opens the passenger door to try to rouse Haskell, instead Haskell falls out, striking his head on the rock. It is not clear from the narrative whether it was the rock that killed him or if he was already dead (perhaps the result of an overdose of the mysterious medication we see him pop repeatedly). Either way, it is as if automobility conspires against Al, now forcing him to remain in the driver's seat. "I couldn't leave the car there with him in the gully. That would be like erecting a tombstone," he reasons in rapid-fire voiceover, quickly running through all the permutations of options: run, stay, drive, park. Caught now in the chronotope of automobility, every option is spelled out in terms of its relation to automobility in voice-over: "My idea was to cover him with brush, not to rob him. But then I remembered, even if I only drove the car for a hundred miles or so I would need money for gas. Besides, it was stupid for me to leave all that money on a dead man. Not only that, I'd have to take his driver's license in case I was stopped for something. I didn't like to think about it, but by that time I'd done just what the police would say I did, even if I didn't. My clothes...the owner of such an expensive car would never be wearing them."

The next we see Al he is wearing Haskell's suit and hat and is almost finished putting up the convertible top in the pouring rain as a cop pulls up on his motorcycle. The conversation between the pair is a strange one, with both men standing in the rain on opposite sides of the car – Al (now as Haskell) on the passenger side and the motorcycle cop on the driver's side – speaking through the interior of the car where the microphone is placed, so each voice resonates

with a slight echo because of the metal roof of the car and glass windows but is also muted by the fabric of the seats. As a result, the voices are enshrouded in automobility as the exchange is filtered through the machine ensemble. The cop wants to know if the car is his, a question which is elided in the quick, stern grilling which is more concerned with the fact that the car is partly blocking the road. Al-as-Haskell apologizes meekly, saying he recognizes the mistake, which is all the cop seems to require. Here the automobile is the contested site; once Al has passed this test the automobile is his, and his identity has changed; he is now Haskell, Driver-Car – with the driver’s license, car registration and matched set of clothing to prove it.

His last act in abandoning his former identity, is pulling his suitcase out of the back seat and throwing it into the ditch. “If they found the dead man in the gulley now, it would be me,” he points out in voiceover. Then he climbs into the driver’s seat, now safely contained within the nest, protected by the full shell of the car with the top up, with his identity as Haskell now reinforced by the shell of the automobile. As Al-as-Haskell later tells us in voiceover: “I’d have to be Charles Haskell until I got to some city where I could leave the car and be swallowed up.” But of course that isn’t to be. Inheriting the mantle of the Driver-Car from Haskell, Al is now the one to pay it forward and pick up the woman hitchhiking at the gas station outside of Los Angeles, Vera (Ann Savage). Because this is the world of noir, she also happens to be the one person on this stretch of road who knows he is not Charles Haskell, because she was the hitchhiker the real Haskell picked up earlier and left him with the scratches that Al noticed. Tellingly, after this revelation, when we switch to the POV behind the pair in the car, Al’s face is no longer seen in the mirror. Instead we see a reflection of the car’s seat, indicating the car is once again a contested site, arguably up for grabs, owned by no-one. Although Al is still at the wheel, Vera is now in control of their automobility.<sup>289</sup>

The nest of the automobile they now share quickly turns into a prison for Al. “From now on, you and me are like the Siamese twins,” Vera quips, neglecting to realize that in fact they are

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<sup>289</sup> David Laderman makes a similar point in *Driving Visions*; see page 33.

actually triplets conjoined with and inseparable from the automobile itself. She tells Al his plan to simply abandon the car is as a terrible one. “Don’t you know a deserted automobile always rates an investigation?” “The only safe way to get rid of the car is to sell it to a dealer. Get it registered under a new name,” she insists. Later, when she registers them at a hotel as Mrs. Charles Haskell, she spells this out in terms of automobility as well – since the car was registered to Haskell, the home should be too. Later when they go out for lunch they go to a drive-in restaurant where they are served in the car in the parking lot, the tray of food attached to the door with clamps, with the end of the meal to be announced by blowing the horn, the waitress instructs the pair. Vera’s sudden change in plan in the parking lot of the used car dealer and not selling the car also hinges on automobility. With Haskell disappearing as a teenager and being gone fifteen years, all Al-as-Haskell will have to do to prove his identity is show up in the car and present his driver’s license and registration; his legally authorized access to automobility will in turn prove he is Haskell, she argues.

In the end it is Al’s severance from automobility that dooms him. Too much time spent off the road and in the apartment arguing with Vera culminates in her accidental death by strangulation. Dumped back into the chronotope of the road, we exit flashback and rejoin Al at the roadside diner. As he walks back to the edge of the road we hear his closing narration just before a police cruiser stops to pick him up: “I keep trying to forget what happened, and wonder what my life might have been if that car of Haskell’s hadn’t stopped. But one thing I don’t have to wonder about – I *know* – someday a car will stop to pick me up that I never thumbed. Yes...fate...or some mysterious force can put the finger on your or me for no good reason at all.” The finger of fate here seems to be attached to the long reach of automobility; a cautionary tale for those who try to bypass class or social position and claim access to it by illicit and amoral ways. At the crux of this shift is the dividing line between the chronotope of the road and the chronotope of automobility; the shift from one distinct time-space to the other is the toggle between one set of opportunities and another.

## **TOGGLING EMBODIMENT: AUTOMOBILITY IN THE TRAVELER-SPECTATOR**

For the Traveler-Spectator, the chronotope of automobility offers a similar set of toggles, each with an on/off, but varying in combination. These switches are as integral a part of the journey as those on the dash, set into the door, or even the steering wheel. We take this set of toggles with us to the cinema, have them in place next to us on the couch, when watching a DVD, streaming a film at home, or binge-watching the latest Netflix series. Every time a character on screen gets into a car on screen, big or little, we get in with them and our own chronotope of automobility is activated. Our lived body is behind the wheel, or in the passenger seat with the characters on screen. Our body-memory helps locate the pedals at our feet, the incline of the seats. This is the sort of interconnectivity that Bakhtin told us about: “Chronotopes are mutually inclusive, they co-exist, they may be interwoven with, replace or oppose one another, contradict one another or find themselves in ever more complex interrelationships.”<sup>290</sup> Here too is a good place to remind readers that Bakhtin also told us: “Out of the actual chronotopes of our world (Which serve as the source of representation) emerge the reflected and *created* chronotopes of the world represented in the work (in the text).”<sup>291</sup>

In the case of automobility, there is both the habit of driving (in Merleau-Ponty’s sense, discussed earlier), but also the habit of certain trips: repeated journeys to work or the store or the cinema, our favorite restaurants or bars or bookshops. These places we know are most often accompanied by specific routes we know, and our trips there, as either driver or passenger, are etched in our body memories just as surely as the act of being a driver or a passenger. As sociologist Tim Edensor describes: “Routinized time-space paths become marked upon familiar space. And collectively, routes and places in which shared, synchronized movement, work and

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<sup>290</sup> Mikhail Bakhtin, “Forms of Time and Chronotope in the Novel,” *The Dialogic Imagination*, 252.

<sup>291</sup> Mikhail Bakhtin, “Forms of Time and Chronotope in the Novel,” *The Dialogic Imagination*, 253.



recreation are carried out link these individual time-space paths, identifying points of spatial and temporal intersection.”<sup>292</sup> Specifically, Edensor points out:

Roadside shops, bars, cafes and garages are points of intersection where individual paths converge. They become sedimented in the landscape and in the habit-body, providing a geography of communality and continuity. The roads along which people drive and the places they go to by car are spaces of circulation in which people coordinate and synchronize activities, stabilizing social relations in time-space.<sup>293</sup>

This *familiarity* is part of the chronotope of automobility. Familiar streets, paths you know; these choices often seem set almost by autopilot. But so too are familiar times; your daily drive to work or school; the weekly trip to the store on the way home; or in the case of overpopulated roadways of Los Angeles, scheduling trips around periods of known heavy traffic.<sup>294</sup> The time-space of these paths can lead to both comfort and anxiety; the comforts of the known versus the dread of the daily grind, the fear of the rut. This *unfamiliarity*, too, is also part of the chronotope of automobility: the unique time-space of discovery, sometimes pleasant, sometimes unsettling. This is how automobiles have been sold for over a century now, luring in buyers with the promise of infinite discovery, the ability to blaze trails and carve new paths through frontiers, both rural and urban, and when at a standstill on the freeway, to enjoy the plush comforts of the nest, a unique time-space offering a true home away from house.

Like the chronotope of automobility, so too is the *chronotope of the cinema* a time-space of familiarity and routine. Whether it is the increasingly rare occasion of going out to the cinema, or, more likely, staying home and streaming a film on Amazon or Netflix, there is regularity and routine to these screenings. At home you prepare the room, lower the shades or the lights, grab a blanket or food, prep your favorite spot on the couch. This repetition helps to prepare for the time-space of the cinematic event; a nest within the shell, just as surely as the automobile itself. Beyond the familiarity of the event, there is the familiarity of repeat viewings:

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<sup>292</sup> Tim Edensor, “Automobility and National Identity: Representation, Geography and Driving Practice,” *Automobilities*, Ed. Mike Featherstone, Nigel Thrift and John Urry (London: SAGE Publishing, 2004), 109.

<sup>293</sup> Tim Edensor, “Automobility and National Identity: Representation, Geography and Driving Practice,” 109-110.

<sup>294</sup> Here, I would use the phrase ‘rush hour,’ but in pre-pandemic Los Angeles the actual measure was more like 3-hour blocks in both the mornings and evenings, Monday through Friday, while during pandemic it is actually much less.

our favorite films on rewind and replay, DVDs in the hall closet, stored on our hard drive, or lurking in our Amazon/Netflix queues for months at a time. These repeat viewings take us down the familiar streets outside a pre-war Paris with Bogart and Bacall in *Casablanca*, or the latest death-defying dive in a last-ditch effort to destroy the Death Star all over again. There is also the familiarity of genre conventions, stock plots, remakes, typecasting, film tropes of any shape. These forms of repetition help adorn our nests with the comforts of familiarity. They preserve the time-space of the cinema. Time “thickens,” but so does space, and the world of the film concretizes all around us, as Bakhtin tells us in the most quoted lines from his ground-breaking essay on chronotopes:

In the literary artistic chronotope, spatial and temporal indicators are fused into one carefully thought-out, concrete whole. Time, as it were, thickens, takes on flesh, becomes artistically visible; likewise, space becomes charged and responsive to the movements of time, plot and history. This intersection of axes and fusion of indicators characterizes the artistic chronotope.<sup>295</sup>

In this sense the repetitions that genre relies upon, as seen in noir films and road movies, are as reassuring to the Traveler-Spectator as the roadside shops, bars, cafés we see on our routinized time-space paths in the world. They help preserve our nests in our shells, at the cinema, as in our automobiles. In the cinema, they help us preserve our bubble of space-time shared with the world on screen, and like the chronotope of automobility, keeps travelers at a distance from one another – each, isolated in our nest within a shell, as we circulate through a community equally encased in their own respective nests-within-shells. So, while the time-space of the road is shared by all who travel on it, the time-space of each automobile is singular and unique, in effect, held in suspension both from the road and from each other. Each of these time-spaces are experienced as an individualized packet, nestled into its individual shell and in sync with each other on the road.

Until they aren't. Then a crash results, sudden and violent, and the travelers reenter the community, from fast to full stop with force...and often finitude, fatality. This marks the shift

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<sup>295</sup> Mikhail Bakhtin, “Forms of Time and Chronotope in the Novel,” *The Dialogic Imagination*, 84.

from the chronotope of automobility to a new and radically different category I want to introduce here: the *chronotope of the crash*. While the *chronotope of the road* provides the potential for encounter with people normally separated by social and spatial distance and “the most various fates may collide and interweave with one another,”<sup>296</sup> and the *chronotope of automobility* results in a sensation that is both a product of lived experience and bodily memory, helping us locate the pedals at our feet, specific knobs on the dash or doors, the *chronotope of the crash* throws all these relations out of place. In the unique time-space of the chronotope of the crash, all categories of automobility can suddenly be ripped apart, relocated and redefined: interior, exterior, nest, shell, windscreen, driver, passenger, spectator, mastery, control, chance, fate.

Bakhtin tells us, chronotopes “may be interwoven with, replace or oppose one another, contradict one another or find themselves in ever more complex interrelationships.”<sup>297</sup> That is certainly the case of the unique time-space of the crash, where we have at least four of Bakhtin’s chronotopes overlapping with my own *chronotope of automobility*.<sup>298</sup> Like his chronotope of the threshold and chronotope of adventure time, this is a “chronotope of *crisis* and *break* in a life” where “time is essentially instantaneous; it is as if it has no duration and falls out of the normal course of biographical time.”<sup>299</sup> It is, in fact, a time-space that cannot be perceived by the naked eye, and can, in fact, only be accessed by the cinema – as we will ‘see’ in the next chapter...

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<sup>296</sup> Mikhail Bakhtin, “Forms of Time and Chronotope in the Novel,” *The Dialogic Imagination*, 3.

<sup>297</sup> Mikhail Bakhtin, “Forms of Time and Chronotope in the Novel,” *The Dialogic Imagination*, 252.

<sup>298</sup> Some of Bakhtin’s other original chronotopes at play here in addition to the chronotope of the road would include the chronotope of encounter, the chronotope of the threshold, the chronotope of crisis, and the chronotope of adventure time.

<sup>299</sup> Mikhail Bakhtin, “Forms of Time and Chronotope in the Novel,” *The Dialogic Imagination*, 248.

**CHAPTER 3:**  
**CRASH RESEARCH VS. DRIVER'S EDUCATION:**  
**THE EXPLOSION AND IMPLOSION OF AUTOMOBILITIES ON SCREEN.**

*At the end of the nineteenth century, museums exhibited machines:  
at the end of the twentieth century, I think we must grant the formative  
dimensions of the accident its rightful place in a new museum.*

-- Paul Virilio<sup>300</sup>

*Books will soon be obsolete in the public schools. It is possible to  
teach every branch of human knowledge with the motion picture.*

-- Thomas Edison<sup>301</sup>

An alternate history of automobility could be told from the point of view of the crash. Certainly it is the crash that has shaped much of automobile design of the past sixty years as well as the engineering of roads, and the education of the drivers on them. Just as surely as there is a clear linkage of automobility and the cinema (as established in the previous two chapters), so too, is there is a clear and continued connection of the cinema and the *crash* – not only in the form of fascination with on-screen crashes and celebrities who have died or been injured in crashes – but also the aesthetic relationship of the crash and the cinema itself. In this chapter I will examine how the history of crash research has not only helped shape our understanding of auto safety, but helped shape the portrayal of crashes in narrative cinema, radically altering the on-screen representation of automobility, and ultimately our relationship to it in the world. While the films of crash studies pioneers like Hugh DeHaven, John Paul Stapp and Derwyn Severy were the first to capture the crash on film and examine it, such imagery would only reach an audience via the driver's education films that originated in the late 1950s and early 1960s.

**A HISTORY OF CRASHING: THE KINETIC PLAGUE OF THE STEEL AGE**

For as long as there have been cars on the road, they have been crashing. In recent years, always crashing, it seems. Starting with the world's very first car in 1771, or as most historians describe it, "the world's first horseless carriage" – a steam-powered, two-ton, three-wheeled

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<sup>300</sup> Paul Virilio and Sylvère Lotringer, *Pure War*, Trans. Mark Polizzotti and Brian O'Keefe (Los Angeles: Semiotext(e), 2008 [1983]), 5.

<sup>301</sup> Quoted in Ken Smith, *Mental Hygiene: Classroom Safety Films 1945-1970* (New York: Blast Books, 1999), 19.

vehicle capable of a whopping 2½ mph invented in 1769 by French army engineer Captain Nicolas Cugnot, and called a *fardier à vapeur*.<sup>302</sup> The French army immediately put it to wartime use – replacing the horse-drawn fardiers that had been providing the standard method of hauling artillery and ammunition to the front. This lasted almost two years – until one of the fardiers went out of control and demolished a wall – with Cugnot himself at the wheel.<sup>303</sup> As a result, the French army discontinued production, and experimentation with mechanized vehicles altogether. Afterwards, Cugnot was banished to Belgium for the duration of the war with a tiny stipend, and only avoided dying penniless and forgotten thanks to an appreciative Napoleon Bonaparte, who invited him back to Paris in 1804, shortly before his death.

It is telling that the first mechanically powered automobile also resulted in the first mechanized road accident. As a result, the crash or so-called “automobile accident” was equated with the technology from the first, etched into the timeline as the potential or even eventual endpoint of every automobile. Terming this the *Primal Crash* seems apt, embedding the event with a variation on the Freudian notion of the Primal Scene, and all of its appropriately weighted baggage (and capitalization to which it is therefore due). Like the Primal Scene, the Primal Crash is another form of collision – also interpreted as a scene of violence.<sup>304</sup> It is a scene of surplus; excess speed, excess daring and (often) excess drink (or other intoxicating substances), are all encoded into the crash. If we discover one or more of these elements are missing, we puzzle at the facts, or suspect the person relaying the tale of the crash to be lying, or wrong in his or her facts. Applied here on a metaphoric level, the Primal Crash, like the Primal Scene, was experienced in the infancy of the automobile’s history, before it could be fully understood by the culture of the 17<sup>th</sup> century. Like the Primal Scene, this first crash vacillates in a space between history and myth; with no visual proof, the Primal Crash remains in question as either something witnessed

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<sup>302</sup> See Steven Parissien’s excellent history of the automobile, *The Life of the Automobile* (New York: St. Martin’s Press, 2013), 4.

<sup>303</sup> This famous scene was reenacted in *Das Stahltier*, or *The Steel Animal*, a German film from 1935, by reports, a propaganda film originally intended to celebrate the 150<sup>th</sup> anniversary of the German Railway company, but withdrawn by the government. Only one privately owned copy of the film survived World War II, preserved in Leni Riefenstahl’s personal archive, and is now available on DVD.

<sup>304</sup> The relationship between the crash and sexuality will be explored in depth later in this chapter when we get to J.G. Ballard’s seminal novel, *Crash*, and David Cronenberg’s later filmic adaptation of it.

or pure fantasy. While Freud uses the model to establish sexual theories of childhood, and certainly J.G. Ballard (and David Cronenberg) would go on to explode those notions, here I introduce the metaphor more as a means to address both the historic importance of the trauma, and the way it has repeated on the timeline of automobility since then.

The Primal Crash replays itself next in the UK in 1784, with Scottish engineer, William Murdoch's 'road locomotive'. This apocryphal tale, told often by his son, Alexander Murdoch, is recounted in Mary Rosetta Parkman's book, *Conquests of Invention*:

It was on a dark night, early in the year 1784, and the road chosen was a lonely lane bordered with high hedgerows, leading to the parish church and rectory. The boiler was filled, the lamp was lighted; soon the steam got up, and off went the engine, puffing and snorting at the rate of 6 or 8 miles an hour. It soon outran the inventor, and then the night air was rent by a succession of frightened cries for help. Murdoch, hurrying up, found the worthy rector, who, hearing a puffing and snorting, and seeing only a fiery eye rushing along not much above the level of the ground, believed he had encountered the Evil One in person.<sup>305</sup>

Imbued with both religious zeal and sardonic humor, the tale repeats the basic narrative of the Primal Crash – an automobile out of control – but this time adds the telling detail of its own inventor running after it. This tale, while symbolic of the greater fears of the approaching Industrial Revolution, almost 240 years later in the 19<sup>th</sup> century, equally anticipates the fears of the Anthropocene in the 21<sup>st</sup>. With our world seemingly on a collision course with extinction due to industrialization and particularly the emissions of our automobiles, the Primal Crash continues to resonate, with us as a civilization running after this vehicle of destruction, hoping to be able to climb back aboard and reassert some sort of control over its trajectory and ultimate endpoint.

A Google search of "first car crash" comes up with an almost endless list of possible answers, containing many contradictions and even more cases of one-upmanship's, mostly on a regional basis, with various cities, counties, states and countries clamoring to claim ownership of the "first automobile accident," "first death by crash," "first pedestrian killed by automobile,"

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<sup>305</sup> Mary Rosetta Parkman, *Conquests of Invention: Cyrus H. McCormick, Elias Howe, Thomas A. Edison, Robert Fulton, Guglielmo Marconi, Charles Goodyear, George Westinghouse, Eli Whitney, George Stephenson, James Watt, Wilbur and Orville Wright, Alexander Graham Bell* (New York: The Century Co., 1923), 148.

and so on. Although no one has yet cited a crash that precedes the first car of Cugnot, many dismiss that crash on the basis that it ‘wasn’t really a car,’ but something closer to a truck or tractor or motorized horsecart. So. Depending on how you define a “car,” the next claims for the title of “first car accident” come almost a hundred years later. In 1869, Irish scientist Mary Ward was thrown from her steam-powered automobile into the path of her own vehicle, which rolled over her, breaking her neck, and earning her the definitive title of first automobile accident fatality. Ohio City, Ohio claims the first gasoline-powered automobile accident in 1891, when engineer James Lambert crashed the car he invented and was driving hit a tree root, causing Lambert to lose control and crash; both men were lucky enough to walk away with only minor injuries. The first recorded pedestrian fatality caused by an automobile occurred in London in October of 1896 when Bridget Driscoll was hit by driver Arthur Edsall. Witnesses described both Driscoll and Edsall as “bewildered” and “frozen in place,” seemingly unaware of avoiding the collision, even though the vehicle had a top speed of only four miles per hour. (The death was ruled an accident in court, and Edsall was released without being prosecuted.) The first pedestrian death in the U.S. was Henry Bliss, who by most accounts was helping a woman step out of a New York City streetcar when he was struck by a cab; what differs in those accounts is the date, of either September 1899 or 1896, which of course changes the event’s claim to ‘firstness’ in history. The first fatality in a gasoline-powered automobile was Englishman Henry Lindfield, who again in a repeat of the Primal Crash, lost control of his vehicle, which careened into a fence, throwing Lindfield out of the car and into a tree. Surgeons amputated one of his legs in an effort to try and save the man, but he never regained consciousness and died the next day.<sup>306</sup> All of these rivals for the title of First Crash accentuate the continued psychical primacy of the crash to modern culture. In essence all of the competing crashes above are playing out the

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<sup>306</sup> See Matt Soniak’s piece, “When and Where Was the First Car Accident?” on Mental Floss (December 6, 2012) for a discussion of these historic automobile-related accidents: <https://www.mentalfloss.com/article/31807/when-and-where-was-first-car-accident>. For competing histories, also see Raphael Orlove, “The First Fatal Car Accident in the World Was Earlier Than You Think, *Jalopnik* (January 22, 2014) <https://jalopnik.com/the-first-fatal-car-accident-in-the-world-was-earlier-t-1506682342>; “World’s First Automobile Accident,” *Ohio History Central*, [https://ohiohistorycentral.org/w/World%27s\\_First\\_Automobile\\_Accident](https://ohiohistorycentral.org/w/World%27s_First_Automobile_Accident), and of course the Guinness Book of World Records entry: <https://www.guinnessworldrecords.com/world-records/first-person-killed-by-a-car>; finally, Wikipedia has an entry of “notable traffic collisions,” which, like so many entries on the seemingly limitless website, is rife with truths and misinformation: [https://en.wikipedia.org/wiki/List\\_of\\_traffic\\_collisions](https://en.wikipedia.org/wiki/List_of_traffic_collisions)

Primal Crash in their own way, with their own specific focus on some detail that indicates a “first.” The fact that this list of “firsts” also seems to keep growing, indicates both the continued trauma and fascination with the crash.

### **WHAT’S IN A WORD: AN ETYMOLOGY OF CRASH VERSUS ACCIDENT**

The term *crash* predates even the earliest incarnation of the automobile by over two centuries, and originates in Middle English in the 15<sup>th</sup> century. According to the Oxford English Dictionary, the original Middle English word *crasschen* was possibly a mixture of *craze* and *dash*, and definitely imitative,<sup>307</sup> giving the word an onomatopoeic origin, deriving from the *sound* of the event itself, i.e., two things colliding. It isn’t until the 20<sup>th</sup> century that the word picks up its additional, more colloquial, but equally visceral meanings – as in the stock market ‘crashing’ (in the 1920s) and the notion of a body ‘crashing’ in terms of losing energy (in the 1940s).

It is interesting to compare these origins to that of the word *accident* – which dates back more than two centuries earlier, to 12<sup>th</sup> century Old French, which has its roots in the Latin word, *accidentem*. While the French indicates an occurrence, incidence or event that comes from chance, the Latin has a decidedly more negative connotation from the beginning, indicating an occurrence of misfortune. (The phrase *si quid cui accidat*, meaning “if anything should happen to me” has long been a euphemism for “to die”.<sup>308</sup>) By the time the word reaches Middle English in the late 14<sup>th</sup> century, the word is typically met in theology, medicine, philosophy and law. (It isn’t until 1935 that the word “accident” appears in the dictionary as a euphemism for an unplanned pregnancy.)

There is a third meaning of *accident*<sup>309</sup> that relates the word to “a nonessential property or quality of an entity or circumstance”<sup>310</sup> and dates all the way back to the 3<sup>rd</sup> Century, B.C. and

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<sup>307</sup> See both the Merriam-Webster and Oxford Dictionaries: <https://www.merriam-webster.com/dictionary/crash> and [https://www.oxfordlearnersdictionaries.com/us/definition/english/crash\\_1](https://www.oxfordlearnersdictionaries.com/us/definition/english/crash_1)

<sup>308</sup> See <https://www.etymonline.com/word/accident> for more details.



the philosophy of Aristotle. For Aristotle, the concept of *accident* was of special importance in discussing ontology. In his analysis, while a person's core is his or her substance, which always remains, everyone changes accidentally – gets older, loses weight, gains knowledge, and moves about from place to place. In other words, in Aristotelean thought, accident is used to describe occurrences that happen to people, without changing their essence, or that which makes them human. For Aristotle, there are nine kinds of accidents: quantity, quality, relation, habitus, time, location, situation, action, and passion. Together with *substance*, they make up the ten fundamental categories of Being according to Aristotle's ontology.<sup>311</sup> In the 13<sup>th</sup> century, St. Thomas Aquinas revisits this Aristotelean concept of *accident* with regards to theology; specifically to explain the transubstantiation of the Eucharist within the Catholic ceremony of communion. For Aquinas, it was this notion of the *accident* that could explain this miraculous transformation of bread and wine to the body and blood of Christ; with the bread and wine considered accidents, as opposed to the true nature of the body and blood of Christ. For both Aristotle and Aquinas, the accident always has a dual character, and as such a dependent mode of existence. The accident always refers back to something (in both cases, the question of Being itself). As Aquinas describes in *The Summa Theologica*, “To exist in a subject, is not the definition of accident, but on the contrary ‘a thing which is due to exist in another.’”<sup>312</sup>

Although this notion of the accident seems to set off in a largely different direction than where this dissertation is traveling, it does help to illuminate two ideas that are central to this chapter – first, that the crash is transformative – both to the automobile body as well as the human bodies it is transporting; and secondly, that the crash or “car accident” is an integral element of the car itself. While certainly not part of its substance, i.e. not inevitable, it is

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<sup>309</sup> The pun here on “third meaning” is, of course, intentional, as a Barthesian logic can be utilized to connect it to the first two meanings, which are more directly relevant to the focus of this book. See Roland Barthes, “The Third Meaning,” *Image-Music-Text*, Trans. Stephen Heath, (New York: The Noonday Press, 1977 [1970]).

<sup>310</sup> See The Merriam-Webster Dictionary: <https://www.merriam-webster.com/dictionary/accident>

<sup>311</sup> Aristotle, *Metaphysics* (1030a, 20-23); <http://data.perseus.org/citations/urn:cts:greekLit:tlg0086.tlg025.perseus-eng1:7.1030a>

<sup>312</sup> Thomas Aquinas, *The Summa Theologica, (In 4 sent. 12.1.1.1 ad 2)*, Trans. *Fathers of the English Dominican Province*; [http://www.documentacatholicaomnia.eu/03d/1225-1274.\\_Thomas\\_Aquinas.\\_Summa\\_Theologiae\\_%5B1%5D.\\_EN.pdf](http://www.documentacatholicaomnia.eu/03d/1225-1274._Thomas_Aquinas._Summa_Theologiae_%5B1%5D._EN.pdf)

certainly always a *possible* outcome of *every* automobile manufactured. In Aristotelean terms, the accident could be thought of as the quality that every automobile has, whether it has experienced it yet or not (as opposed to the essential properties of an automobile; the fact it has an interior and exterior, and is used for transportation, even if it may fail to get you where you are going). So, while the accident is contrasted with the natural order of things, its hovering omnipresence of possibility helps to reinforce the relative stability of order. In the specific case of automobility, the car accident or crash is always hovering like some ominous spectre just ahead in the road, and its possibility is what solidifies the normalcy of being in the car, and, indeed, of automobility itself. What Wolfgang Schivelbusch points out in regard to the locomotive accident is equally applicable to the phenomenon of the automobile accident:

One might also say that the more civilized the schedule and the more efficient the technology, the more catastrophic its destruction when it collapses. There is an exact ratio between the level of the technology with which nature is controlled and the degree of severity of its accidents. The pre-industrial era did not know any technological accidents in that sense. In Diderot's *Encyclopedie*, 'Accident' is dealt with as a grammatical and philosophical concept, more or less synonymous with coincidence. The pre-industrial catastrophes were natural events, natural accidents. They attacked the objects they destroyed from the outside, as storms, floods, thunderbolts, and hailstones. After the Industrial Revolution, destruction by technological accident came from the inside. The technical apparatuses destroyed themselves by means of their own power.<sup>313</sup>

Nowhere is this more clear than on the roads that now crisscross our entire globe. The numbers on car crashes are catastrophic, with over six million crashes reported last year in the United States alone, resulting in over three million injuries (and 1.3 million deaths worldwide). All these ten-digit numbers break down to a more equally comprehensive but nonetheless devastating number: 110 people die in car accidents every day in the United States alone.<sup>314</sup> But the even more terrifying fact is: those numbers could be a lot worse – and *would* be a lot worse – if it wasn't for the pioneering efforts of a handful of men who began doing crash research in the mid-Twentieth Century. And it all started with one man's crash...in an airplane.

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<sup>313</sup> Wolfgang Schivelbusch, *The Railway Journey*, 131.

<sup>314</sup> These numbers are found in a multitude of locations on the internet. Here are a few of them: <https://www.driverknowledge.com/car-accident-statistics/>; <https://www.asirt.org/safe-travel/road-safety-facts/>; <https://safer-america.com/car-accident-statistics/>.

## THE FATHER OF CRASHWORTHINESS; DEBUNKING THE JESUS FACTOR

It probably comes as a bit of a shock to discover that the most important crash in the development of automotive safety actually happened in the *air* in 1917. During World War I the Curtis JN-4 was the most famous aircraft in the world. Almost 95% of the pilots who ended up flying in the war trained in this (in)famous airplane nicknamed the “Jenny.” The twin-seat set-up allowed for a student to be seated in front of his instructor; the dual-control sticks thought sure to ensure maximum safety during training exercises. Except when they didn’t. Such was the case of 22-year old cadet Hugh DeHaven, whose Jenny collided with another cadet-flown Jenny during aerial gunning training seven hundred feet over a small Texas airstrip, sending both planes spiraling downwards, bursting into flames when they hit the ground. There are several versions of this mythic tale circulating through various histories of automobile safety. In some, both pilots walked away from the crash, in others – including DeHaven’s own account – he was the only survivor of the deadly crash. As he describes:

I hit the ground, and [...] the thing just rolled up in a ball of wire, fabric and splinters—there’s nothing left, very little. I broke both legs, and I ruptured my liver, I ruptured my gallbladder, I ruptured my kidneys, and they disentangled me from the plane and took me into the hospital. they didn’t even bother to set my legs. They just...left me to die...but I just didn’t die.<sup>315</sup>

As DeHaven lay in the hospital, slowly healing, he wondered why he was the single survivor of the fiery crash. The only thing he knew for sure was that his serious internal injuries had been caused by a poorly-designed seatbelt, the six-inch buckle of which, had penetrated his abdomen.<sup>316</sup> When DeHaven finally recovered, he went to inspect the wreckage of the two planes

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<sup>315</sup> Quoted in Karen Beckman, *Crash: Cinema and the Politics of Speed and Stasis*, 126. Have a look at this “flying crate” (the other popular nickname for the plane, heard throughout the 1920s and 30s in Hollywood films about World War I flyers) here: <https://airandspace.si.edu/collection-objects/curtiss-jn-4d-jenny>

<sup>316</sup> See Ralph Nader, *Unsafe At Any Speed: The Designed-In Dangers of the American Automobile* (New York: Bantam Books, 1973 [1965]), 69; also Jim Donnelly, “Hugh De Haven Jr,” *Hemmings Classic Car* (January 2015); <https://www.hemmings.com/blog/article/hugh-dehaven-jr/>

and noticed that of the four cockpits, only the one he had been seatbelted into remained fairly intact; the other three were nearly disintegrated.<sup>317</sup>

This mythic tale opens the third chapter of Ralph Nader's seminal 1965 book on auto safety, *Unsafe at Any Speed*. As Nader summarizes, "From this one man's sense of wonder evolved a major life-saving concept of the twentieth century: that the human body can withstand tremendous decelerative forces inflicted by crashes or falls. To be capable of tolerating such impacts in transport vehicles the human needed a 'crashworthy' structure around him."<sup>318</sup> But initially, DeHaven's findings were rejected by all who surrounded him. His commanding officer first chided him, then ordered him to cease his investigations into other airplane crashes. To DeHaven's commanding officer, as to most flyers in that era, pathology was a simple question of luck, and the miracle of survival was due to the "Jesus Factor."<sup>319</sup> In other words, flying, like life, was a gamble...but with even worse odds. But there was another life-changing event in DeHaven's life that neither Nader nor Karen Beckman (author of *Crash: Cinema and the Politics of Speed and Stasis*) mention, but which is recounted in the Weill Cornell Medical Center Archives, and mentioned in several blogs referencing DeHaven's work, including the excellent essay on DeHaven by Amy Gangloff, "Safety in Accidents: Hugh DeHaven and the Development of Crash Injury Studies." As Gangloff describes: "DeHaven's interest in crash injury protection reignited in 1935 after he helplessly witnessed a car skidding on wet pavement, flipping over, and landing in roadside brush. The impact had propelled the driver's head into a sharp steel knob on the dashboard, a blow that would leave a disfiguring scar. It was evident to DeHaven that safety engineering had not progressed since his own trauma in 1917."<sup>320</sup> This occurrence, in combination with DeHaven's own aerial crash, set him on his path to

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<sup>317</sup> Ralph Nader, *Unsafe at Any Speed*, 69.

<sup>318</sup> Ralph Nader, *Unsafe at Any Speed*, 69.

<sup>319</sup> It should be pointed out here that Karen Beckman, in her otherwise well-researched book, *Crash: Cinema and the Politics of Speed and Stasis*, somehow manages to get this wrong, ascribing this notion of the "Jesus Factor" to DeHaven himself; when really it was precisely this manner of thinking that helped propel his lifelong research into the hard science of injury prevention. [See page 126.]

<sup>320</sup> Amy Gangloff, "Safety in Accidents: Hugh DeHaven and the Development of Crash Injury Studies," *Technology and Culture*, Vol. 54, No 1 (January 2013), 42.

investigating issues of auto safety.<sup>321</sup> But the path would be a circuitous one, taking more than a decade before he could actually focus solely on auto safety. His first step was a series of important experiments in an unlikely laboratory: his kitchen at home involving a soft sponge rubber mat and a carton of eggs. As he described in a 1936 letter to his mother:

While fooling around with one thing and another having bearing on the general thought, I took an egg and dropped it in a series of tests onto a soft sponge rubber mat. [...] Imagine my surprise when I found the height could be increased to TEN FEET without fracture. I don't know how much further it could be increased—the ceiling was the limit. So far as I know there is no engineering thought to cover this phenomenon.<sup>322</sup>

The novelty of this new phase of his research career, which stretched over ten years, received more attention than the actual goals of the project – to test new materials that could help preserve the human body in high-velocity impacts, either on the sky or on the ground. The *New York Times* devoted some of its precious front page to the project, in an article entitled “Eggs Just Bounce in 100-Foot Drop”:

It all seemed very foolish at first. A perfectly sane man with two perfectly sane assistants went to the top of a building 100 feet above the street yesterday and began dropping eggs off the roof. [...] Passersby stood agape as the fresh eggs came plummeting down, struck the mat, and went bounding up above the third floor of the eleven-story building.<sup>323</sup>

## **INVOLUNTARY VOLUNTEERS AND UNSUCCESSFUL SUICIDES:**

### **THE BIRTH OF INJURY SCIENCE**

But it wasn't just about eggs plummeting from the tops of buildings. It was also about humans – falling off of buildings, towers, and smokestacks – from heights of fifty feet, a hundred and fifty, and even a 14-story building. And not necessarily by accident. Most of these people *jumped*. But there was one thing this pool of human subjects had in common with each other (and the eggs): they all *survived* the fall. So, why is a man so devoted to crash research

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<sup>321</sup> Certainly, it was not a career choice. By 1933, DeHaven was a rich man in his late-30s, effectively retired, with no real need to work for the rest of his life, thanks to his thriving DeHaven Razor Corporation, based on the seven patents he had filed between 1924 and 1933 for his self-sharpening single-edge safety razor.

<sup>322</sup> Quoted in Karen Beckman, *Crash: Cinema and the Politics of Speed and Stasis*, 126.

<sup>323</sup> Quoted in Karen Beckman, *Crash: Cinema and the Politics of Speed and Stasis*, 126-127.

studying bodies falling from the sky? As Ralph Nader explains in *Unsafe at Any Speed*, it wasn't for lack of trying on DeHaven's part. It was, instead, because he was turned away by every university and government department he initially approached and called a "crackpot" for wanting to do research on the survivability of crashes.<sup>324</sup> Instead, DeHaven turned to a pool of readily available subjects — which Nader describes colorfully as "cases of spectacular suicide plunges or accidental falls by people who 'miraculously' survived."<sup>325</sup> As DeHaven himself points out in his landmark 1942 article, "Mechanical Analysis of Survival in Falls from Heights of Fifty to One Hundred and Fifty Feet": "Evidence of the extreme limits at which the body can tolerate force cannot be obtained in laboratory tests for obvious reasons, nor can it be gained satisfactorily from most aircraft and automobile accidents, because the variables of speed and angle are difficult to appraise."<sup>326</sup> Ultimately the goal of such a study, as DeHaven describes it, was to study the result of rapid deceleration that resulted in "instances of extraordinary survival—after freefall and impact with relatively solid structures" which would then be used "to establish a working knowledge of the force and tolerance limits of the body."<sup>327</sup>

The one thing that DeHaven and his commanding officer agreed upon on was that the potential for a human body surviving horrible injuries was nothing less than miraculous. DeHaven's initial research pool was, after all, comprised of a group of people who shouldn't be alive (and many of them didn't want to be). Like DeHaven, these were people who fell from extraordinary heights, many of whom literally walked away to tell of it. But rather than focus on the miraculous, he focused on the science, the solid, the real and shared facts of these falls. To DeHaven, this was the evidence "that the body can tolerate the force of an extreme crash—without injury"; proof that could be distilled down to four points:

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<sup>324</sup> Ralph Nader, *Unsafe at Any Speed*, 70. "Crackpot," was a name Nader was used to hearing, as it was so often hurled at him; so it is easy to see the personal identification he must have had with this man, as well as a professional one.

<sup>325</sup> Ralph Nader, *Unsafe at Any Speed*, 70.

<sup>326</sup> Hugh DeHaven, "Mechanical Analysis of Survival in Falls From Heights of Fifty to One Hundred and Fifty Feet," *Injury Prevention* 6 (2000), 62 [originally published in *War Medicine* (1942; 2: 586-96)]; <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1730592/pdf/v006p00062b.pdf>

<sup>327</sup> Hugh DeHaven, "Mechanical Analysis of Survival in Falls From Heights of Fifty to One Hundred and Fifty Feet," 62.

(1) extreme force within limits can be harmless to the body; (2) structural environment is the dominant cause of injury; (3) mechanical structure, at present responsible for recurring injury, can be altered to eliminate or greatly modify many causes and results of mechanical injury, and (4) the greater the evidence of body tolerance of force and pressure, the wider the possibility for considering engineering improvements.<sup>328</sup>

DeHaven's research, like Nader's, is not without humanity...even humor. This was the point of both these men's missions after all – saving humanity; restoring dignity; providing hope for the survival of humankind, even in the direst circumstances. All eight of DeHaven's test subjects feature descriptions that are framed by a narrative of sorts – five women who jumped off of buildings, two men (one who jumped, one who fell).<sup>329</sup> All the descriptions are punctuated by facts that seem to defy physics, bordering on the miraculous, surreal details and even black humor. The first case study concludes with a detail provided by the superintendent of the building that the woman jumped off of, the first to arrive at the scene, to see the woman raise herself up on her elbow and remark surprised, "Six stories and not hurt."<sup>330</sup> The second case study takes the time to marvel at the three six-by-two-foot wooden beams broken by the woman's body as she fell, while her body received nothing more than bruises. One of the other cases mentions as a side note a related tale of a woman who jumped from the 17<sup>th</sup> floor and immediately upon landing on the metal ventilator box 144 feet below, promptly sat up and asked to be taken back to her room. While these details in no way affect the science of the investigation, the outcome, the measurements, etc., they do provide a common narrative of miraculous human survival. These details that allow the reader to marvel at these tales of survival, in effect, provide a powerful argument for the continuance of DeHaven's research. There is storytelling happening even in this scientific experiment. And it is the humanity of these subjects that begs for further investigation.

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<sup>328</sup> Hugh DeHaven, "Mechanical Analysis of Survival in Falls From Heights of Fifty to One Hundred and Fifty Feet," 63.

<sup>329</sup> There was also one additional test subject DeHaven himself did not talk to, but was rather, a reconstruction of a victim in 1919 having two falls and surviving them both and remained unidentified by name or gender.

<sup>330</sup> Hugh DeHaven, "Mechanical Analysis of Survival in Falls from Heights of Fifty to One Hundred and Fifty Feet," 64.

From his discoveries in these experiments, DeHaven began to craft his initial theories of “crashworthiness” – a concept that in fact dates back to Hippocrates in 400 B.C. when he wrote his treatise on head injuries:

Of those who are wounded in the parts about the bone, or in the bone itself, by a fall, he who falls from a very high place upon a very hard and blunt object is in most danger of sustaining a fracture and contusion of the bone, and of having it depressed from its natural position; whereas he that falls upon more level ground, and upon a softer object, is likely to suffer less injury in the bone, or it may not be injured at all.<sup>331</sup>

To DeHaven it was, metaphorically speaking, a small jump to apply these findings to the world of automobility. So he closed out his landmark study of these falls with a call to automobile and aircraft manufacturers, insisting that changing design parameters of windshield structures, instrument panels, seats, and safety belts would “enhance survival and modify injury within limits in aircraft and automobile accidents.”<sup>332</sup> This historic article gave DeHaven the distinction of being the first person to publish on the subject of crash safety, singlehandedly laying out the argument for the necessity to redesign the interiors of our automobiles, thereby laying the framework for the modern nest as we know it today.

The only problem was: in 1941 no one wanted to listen. Few of the automobile and airplane manufacturers that DeHaven wrote to about his discoveries even bothered to respond. One of the few who did was Eugene DuBois, a scientist, Naval Officer, World War I hero and Professor of Medicine at Cornell University. With another World War seemingly imminent, the National Research Council Division of Medical Sciences established the Committee on Aviation Medicine to secure the safety of fliers in warfare conditions, putting DuBois in charge. In 1942, DuBois put DeHaven to work for Cornell Medical College. The partnership quickly gained the attention of the Civil Aeronautics Authority — predecessor of the Federal Aviation Administration — who pledged their financial support to found the Cornell Crash Injury Research Project (CCIRP). During World War II, the context of combat made air safety the

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<sup>331</sup> Quoted in Ralph Nader, *Unsafe at Any Speed*, 71.

<sup>332</sup> Hugh DeHaven, “Mechanical Analysis of Survival in Falls,” 539.



priority, so the CCIRP remained focused entirely on the airplane with DeHaven's work specifically focused on the cause of injuries in aircraft accidents. As Nader describes:

He found that wounds of the heart and lungs, punctured by fractured ribs, and brain damage with and without skull fracture were prominent categories of injuries. Such injuries were sustained not just in completely disintegrated aircraft, but also in cockpits and aircraft cabins which had remained intact with little damage. DeHaven called the latter kind of crashes 'survivable accidents' in order to focus attention on the need for deliberate engineering for crash-survival.<sup>333</sup>

Aircraft manufacturers were quick to respond to DeHaven's findings (unlike auto manufacturers in the decades to follow). The first important engineering outcome was the implementation of restraining equipment within the cockpit to keep pilots from colliding with rigid metal surfaces and protruding buttons and knobs. Less lethal instrument panels and more crash-resistant cockpits and cabin structures would eventually follow, along with more strongly moored seats, in light civil aircraft as well as military fighters. The seatbelt, however, would prove to be a tougher argument – in both aircraft and automobiles – as most physicians and researchers agreed with John F. Fulton, a leading member of the Laboratory of Physiology at the Yale School of Medicine, who wrote in his proposal to the National Research Council Committee of Aviation in 1941: "Seat belts are highly dangerous and have been known to cause fatal lower abdominal injuries, even to cutting a person in two."<sup>334</sup> The irony was not lost on Hugh DeHaven, the so-called 'Father of Crashworthiness,' who was both alive because of a seat belt, and set on his life-path because of the injuries sustained by its partial failure. But the important first step had been taken in reconceptualizing and redesigning the interior of a moving vehicle as a protective environment separate from its exterior – giving birth to the notion of the nest in the shell.

## **SURVIVABLE ACCIDENTS AND THE SECOND NATURE OF UNSAFETY**

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<sup>333</sup> Ralph Nader, *Unsafe at Any Speed*, 72.

<sup>334</sup> Quoted in Amy Gangloff, "Medicalizing the Automobile: Public Health, Safety, and American Culture, 1920-1967 (Ph.D. dissertation, Stony Brook University, 2006), 175.

By 1951, Cornell's Crash Injury Research Project was running dangerously short of funds. But that suddenly changed with the publication of a simple but very striking statistical report by the U.S. Air Force which pointed out that it was losing more men through death and injury sustained in automobile accidents than in combat in Korea, where another war was now raging. Effects of the report were soon echoed from the other branches of the armed forces, who were equally shocked to find the same was true of their men.

With the revelation of these facts, Cornell's Crash Injury Research Project finally shifted its focus to the types of crashes that had really concerned Hugh DeHaven all along – ones involving *automobiles*. “Before 1950, nearly all instances of the word *crashworthiness* appeared in publications related to aviation, *not* automobiles,” Lee Vinsel points out in his well-researched book on the history of safety regulations, *Moving Violations: Automobiles, Experts and Regulations in the United States*.<sup>335</sup> But that soon changed, as the character of safety research itself changed and expanded in the 1950s to focus almost explicitly on automobiles. By 1953, the Cornell project received its first grant from the U.S. Army, under the technical guidance of the Armed Forces Epidemiological Board.

Inspired by DeHaven's work, Elmer C. Paul, an insightful and enterprising Sergeant in the Indiana State Police began a study of his own in the late 1940s, persuading authorities to allow him to conduct the first real systematic investigation of injuries sustained on that state's highways. Although the innovations are typically lumped into DeHaven's remarkable body of work, it is actually Sergeant Paul's insights and investigative methods that would go on to shape most of the epidemiological inquiry into car crashes. The first innovation took the shape of the standardized forms that he devised and circulated to his fellow police officers. Of course accident reporting was not new in 1951; the National Safety Council had been pushing for standardized reporting forms as early as the 1920s. What was utterly without precedent was the detailed content that his forms took – focusing not on what caused the accident (which tended

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<sup>335</sup> Lee Vinsel, *Moving Violations*, 88.

to put the focus on the failure of the driver) – but rather the structural damage to the automobile *and* the injuries that resulted from the accident, with each form including outlines of human bodies where police officers would then draw and detail specific injuries.<sup>336</sup> But all Sergeant Paul’s men were doing was collecting the information. To analyze the information and what it meant, he approached the man who had inspired his project: Hugh DeHaven. A formal partnership between the Indiana Police Department and the Cornell Medical College soon followed. While the Indiana State Police began by only collecting data on accidents involving fatalities, it was the job of Cornell’s newly renamed and refocused Automotive Crash Injury Research Center (which, under DeHaven’s leadership had expanded their scope to all forms of automobile accident), to classify them under different types of crash and injury.

But it was the second innovation of Sergeant Paul that would forever after alter the conception of the crash. Like DeHaven, he recognized that most injuries and deaths sustained in automobile accidents were the result of bodies colliding with the interior of the car – dashboard, steering wheel and details protruding from the dash (usually coated in chrome and chisel-sharp). Following this logic, Sergeant Paul argued, it was actually this “*second collision*” that was causing the most damage to the human body. DeHaven then used this conception of the “second collision” as the basis for his field of studies at Cornell, arguing that while there was often little to be done to prevent the first collision, the second collision was something that could be controlled, and eventually prevented altogether. To this end, DeHaven’s team outlined three general requirements they insisted should be implemented on every vehicle on the road to protect drivers and passengers from the second collision:

- 1) a sound outer shell structure which will retain its structural integrity under impact—and absorb as much energy as possible—without allowing undue penetration of the striking object into the passenger compartment; 2) elimination from the interior surfaces of the shell any hard, sharp projections or edges and the prevention of vehicle components (such as steering columns and engines) from penetrating into the compartment; also the application of energy-absorbing materials to reduce impact forces on the human body at all provable points of contact with these surfaces; and 3) provision of passenger restraint systems, *not*

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<sup>336</sup> Lee Vinsel, *Moving Violations*, 88.

*necessarily restricted to seat belt devices, to prevent or minimize relative body motion and abrupt contact with the interior of the automobile, at the same time inducing little or no physiological damage to the passenger due to the operation of these restraint systems.*<sup>337</sup>

## **PACKAGING THE PASSENGER; OR, THE PASSENGER AS PARCEL**

What Hugh DeHaven is not given enough credit for is the transformation of the interior of the automobile from a veritable deathtrap of inevitable, bloody violence and death into a safe nest that was, in turn, protected by the shell of the automobile's exterior. For DeHaven the real revelation of the second collision was that safety within both the airplane and the automobile revolved around the same issue – what he called the “packaging principle.” As Nader describes:

Early in his search for greater automobile safety, Hugh DeHaven asked, ‘Can people be packaged for transport in a manner assuring a better degree of protection against injury and death than is provided by our present vehicles of transportation?’ One of the cardinal principles in ‘packaging’ the passenger is that he be firmly but comfortably anchored, so as not to be thrown against the inside of the vehicle or ejected through it.<sup>338</sup>

It should come as no surprise that the course of DeHaven's research would, in essence, bring him back full circle to the original focus of his study: eggs. After all, that is how he conceptualized the human body. But DeHaven's egg was stronger stuff than most would give credit for. And, as it turned out, so were humans. In both cases, the secret was in the packaging.

DeHaven referred to his study as “body kinematics,”<sup>339</sup> which, strictly defined, refers to a branch of physics that deals with aspects of motion apart from considerations of mass and force. Interestingly it is a word that shares a common root with cinematics, and as DeHaven shifted his focus from falling bodies and airplane safety to auto safety, he would also turn to the cinema in an approach that crash-scholar Karen Beckman points out “constitutes a continuation of both the early motion studies of Marey and Muybridge, and of Charles Babbage's self-inscribing apparatus, a precursor of the black box, which was designed to graphically record the events

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<sup>337</sup> Ralph Nader, *Unsafe at Any Speed*, 75-76.

<sup>338</sup> Ralph Nader, *Unsafe at Any Speed*, 96.

<sup>339</sup> Hugh DeHaven, Boris Tourin, Salvatore Macri, “Aircraft Safety Belts: Their Injury Effect on the Human Body,” New York: Cornell-Guggenheim Aviation Safety Center (July 1953), <https://apps.dtic.mil/dtic/tr/fulltext/u2/O14643.pdf>. Accessed December 15, 2019.

preceding a train accident.”<sup>340</sup> Unlike Marey and Muybridge, whose respective motion studies provided the precinematic foundations for the movies while measuring the flexing, bending, reaching, walking, running, falling, jumping efforts of real living animals and humans, DeHaven’s focus was on the *involuntary* movements of a body propelled by the technology of an automobile. To do this, he shifted to three very different forms of test subjects: (1) anesthetized animals, (2) unembalmed cadavers, (3) Hollywood stuntmen.

The last of this jaw-dropping list served a dual-purpose – both as subjects of certain crash-test films, but also as expert advisors on how to use the experimental high-speed cameras and film that these tests required. As Beckman describes: “[...] Crash-test researchers called on cinematic stuntmen to learn from them both how best to film high-speed collisions and how to help the body withstand the collision’s force, creating a situation where real future disasters were being rehearsed, choreographed, and filmed by the anonymous showmen of Hollywood.”<sup>341</sup> This effectively inscribes a very particular strain of cinema into these groundbreaking, rule-making crash tests – specifically, the Hollywood narrative film. Again, we have DeHaven utilizing aspects of narrative to set up these crash tests, like a screenwriter flushing out a scenario, asking his team of scientific experts and Hollywood stuntmen: “*What if this happens...or that?*” “*Imagine a family of four coming home from the movies.*” “*A young couple on a date crosses over the center divider line and...*” What DeHaven and his team were doing was really a variation on the docudrama – enjoying a certain popularity in theatres at the time, after the release of films like *The House on 92<sup>nd</sup> Street* (Henry Hathaway, 1945), *Call Northside 777* (Henry Hathaway, 1948), *The Naked City* (Jules Dassin, 1948), and *He Walked by Night* (Alfred L. Werker, 1948). But instead of weaving a fictional story around the facts and promoting the film based on its authenticity, DeHaven was creating these crash-test films as mini-fictions that would anticipate

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<sup>340</sup> Karen Beckman, *Crash: Cinema and the Politics of Speed and Stasis*, 127.

<sup>341</sup> Karen Beckman, *Crash: Cinema and the Politics of Speed and Stasis*, 127.

what the facts of these accidents would or could be; *pre*-enactments<sup>342</sup> instead of re-enactments. Like most Hollywood dramas (and most narratives of any form), the stakes were high; literally life or death. Really, the goal of both narratives was the same; the Traveler-Spectators of both forms of film are hoping for the survival of these characters within their respective nests of automobility. DeHaven's goal, too, was very similar to the narrative filmmaker incorporating a car crash into a film – exploring the furthest limits of the body's endurance.

Interestingly this was at a point *before* the car crash had become normalized on celluloid (eventually becoming institutionalized as a basic trope in the Hollywood narrative film). So, as with many things occupying both of the parallel timelines of automobility and the cinema, there is a continued chicken-and-egg paradox regarding issues of the crash and the cinema as well. The fact is the crash-tests filmed on special high-speed film developed by DeHaven's crew of researchers predate its use in the narrative film. DeHaven's films were not only "pre-enactments' of future technological disasters," as Beckman points out,<sup>343</sup> they were also future crash sequences from Hollywood films yet to be made. The fact that these Hollywood stunt drivers were both co-directing and starring in DeHaven's films would ultimately help shape the trajectory of cinematic crashes as well, as these drivers would take their expert training back to the sets of Hollywood films they would continue to make.<sup>344</sup>

Locating the roots of the representation of the car crash in the cinema within the world of crash testing helps to explain the simultaneous sensations of the clinical and the miraculous that continue to accompany most crash sequences on-screen. The concern with the 'miraculous' survival originates with DeHaven himself, and his own narrative origins – the miraculous crash in 1917 that he recovered from, and that shaped the trajectory of the rest of his life. The clinical point of view – the endless crashes, slowed down, stretched out, filmed from a multitude of

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<sup>342</sup> To use Karen Beckman's phrase; see Karen Beckman, *Crash: Cinema and the Politics of Speed and Stasis*, 131.

<sup>343</sup> Karen Beckman, *Crash: Cinema and the Politics of Speed and Stasis*, 131.

<sup>344</sup> Unfortunately, these films are now considered lost, so our only access to what they may have contained is through descriptions of them in the Hugh DeHaven Papers housed in the Medical Center Archives at Cornell University.

angles, and even more proposed potential imaginary narratives that shaped these crash tests, continues to shape cinematic representation of them in all forms of narrative filmmaking.

## **THE CLOAK OF AUTHORITY AND BODY TOLERANCE**

Perhaps more shocking than the use of animal test subjects and cadavers in the history of car crash testing is the alternate timeline of car crash testing involving *living* human beings. The point of origin for this was very literally the body of one man – U.S. Air Force Colonel John Paul Stapp. Like DeHaven, Stapp also believed that the tolerance of the human body was far beyond what anyone expected. Unlike any of the other important figures in the history of automobility and auto safety, Stapp insisted experimenting on himself – repeatedly. As his biographer Craig Ryan describes, “He needed to document and to be able to somehow analyze what a crash impact *felt* like if he was going to find the key to effectively counteracting it.”<sup>345</sup> Like DeHaven, Stapp’s point-of-view also originated from his time as a pilot in the United States Air Force, but was also informed by an advanced level of education, with a Ph.D. in Biophysics from University of Texas and an M.D. from University of Minnesota Medical School. Originating through observation of early studies in flight biomechanics, Stapp’s focus was on the response of the human body to the ever-increasing speeds possible in modern aircraft. With the modern turbojets introduced during World War II the human body was subjected to unknown forces without precedent. As Lee Vinsel explains: “Test pilots and others were injured and often killed by cutting-edge technologies, as when they triggered ejection seats and slammed into still air. Medical doctors, biologists, and other scientists worked to understand and diminish the effects of these forces by conducting a number of novel experiments involving controlled airplane dives, compression chambers, and large centrifuges.”<sup>346</sup>

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<sup>345</sup> Craig Ryan, *Sonic Wind: The Story of John Paul Stapp and How a Renegade Doctor Became the Fastest Man on Earth* (New York: Liverwright Publishing Corp., 2015), 107-108.

<sup>346</sup> Lee Vinsel, *Moving Violations*, 84.

Stapp's contribution to the newly forming field of safety studies in the late 1940s took the unlikely shape of a rocket-powered sled, based on plans discovered in a 1,200-page set of captured Nazi German technical documents. To his horror, Stapp discovered that the German test subjects were neither pilots nor scientists, neither dummies nor corpses, but in fact living human beings – male and female concentration camp prisoners – who were being subjected to violent, and most often fatal tests against their will. Theirs were the first living human bodies that were subjected to barbaric tests of human tolerance to g-forces and impact. Stapp's biographer, Craig Ryan, recounts the results of this horrifying discovery:

Captain Stapp returned to his office and immediately pulled out the classified German documents. He reread them in one sitting, studying every word. One troubling image caught his eye: in the pilot seat at the base of one of the test towers was an emaciated man dressed in rags. Another image showed an x-ray of the test subject's spinal column; he had sustained a lumbar fracture at a peak acceleration of 27g's. Their content was clearly valuable, but Stapp felt ashamed for having seen the reports. He wondered if he should be ashamed that the United States military had used them to exploit the technical knowledge they contained. He recalled the branch chief mentioning that the Army intended to destroy the documents. Stapp made a snap decision to hide them. He wasn't sure why or what he might do with them, but he had the thought that somebody should preserve the evidence of these crimes. While possession of the material could theoretically result in serious punishment, he never second-guessed his decision. The documents were now his burden.<sup>347</sup>

Stapp learned almost immediately upon arrival at Wright Field that there too was a long held tradition of testing with live subjects. However, unlike the German program, the test subjects in the U.S. would be made up of Air Force pilots and scientists – a proud tradition started by the Aero Med Lab's founder a decade earlier, Harry Armstrong, and his successor, Randy Lovelace, who would prove to be a powerful inspiration for Stapp. As Ryan explains,

Once his flying status was approved, Stapp got himself enrolled as a subject for the first actual flight tests with the new oxygen system. Not only was this kind of researcher participation part of the tradition at the Aero Med Lab—both Armstrong and Lovelace had put themselves on the line as subjects of their own tests—but Stapp had come to understand that if he wanted to study a phenomenon, there was nothing better than experiencing it himself.<sup>348</sup>

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<sup>347</sup> Craig Ryan, *Sonic Wind*, 58.

<sup>348</sup> Craig Ryan, *Sonic Wind*, 60.



According to Stapp, by concentrating on his body's response to pain he was, in effect, able to gain a perspective as though he were outside his own body, allowing himself to function quite effectively. The experience was both physical and metaphysical, as Stapp describes in his personal log: "Gradually, I felt myself being conditioned by experience against the subjective threat of extinction, the fear of dying. At the same time, I became even more vividly aware of the link between oxygen and consciousness, between breathing and living."<sup>349</sup> As Ryan further explains: "In a sense, he was learning how to function as his own diagnostic instrument, one that measured his own responses to the forces operating on him. He was especially fascinated by the brief blackout periods. It was like an obliteration of self, and Stapp wondered how this exotic state differed from a painless death."<sup>350</sup> This newfound bodily knowledge would prove to be his defining characteristic; the thing that made him famous, and the very literal body of proof he would eventually present before Congress as evidence that the human body can survive even a high speed car crash – *if* it was strapped in properly.

Of course, it would be virtually impossible for any doctor or engineer in the Armed Forces to experiment on him- or herself *now*. In the 21<sup>st</sup> century, the idea of a doctor becoming his or her own test subject is far closer to fiction than what our reality would allow. What immediately comes to mind instead are the famous fictional precedents – Dr. Jekyll, or Griffin from *The Invisible Man*, or even Dr. Eddie Jessup (William Hurt's character in *Altered States*) – and we know how well all those cases turned out. There are of course some equally famous real-life examples – Jonas Salk and his polio vaccine, Albert Hofman and his LSD trials, Nobel Prize-winning cardiologist Werner Forssmann, anesthesiologist August Bier – but Stapp remains one of the few name-dropped since the latter half of the 20<sup>th</sup> century.<sup>351</sup> Out of all these daredevil-

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<sup>349</sup> Craig Ryan, *Sonic Wind*, 66.

<sup>350</sup> Craig Ryan, *Sonic Wind*, 65.

<sup>351</sup> These are the kind of tales the internet is made for. Especially in laundry list format. For examples, check out: <https://www.mentalfloss.com/article/29241/10-scientists-who-experimented-themselves>; <https://www.healthline.com/health/self-experimentation-in-medicine>; <https://historycollection.co/20-self-experimenting-medical-researchers-in-history/>. You will see that Stapp makes almost all of these lists.

science-heroes, real or imagined, only Stapp's work rated him a *Time* magazine cover proclaiming him "The Fastest Man Alive."<sup>352</sup>

Christened the *Gee Whiz* by its designers at Northrop, the rocket sled (known formally as a "linear decelerator") was actually designed as a matched set of two – identical twins that shared the same name (already anticipating the worst case scenario of a crash). Weighing in at over 1,500 pounds each, and measuring fifteen feet long and six-and-a-half feet wide, the sled was fabricated from chromium-molybdenum steel tubing and clad in aluminum sheeting, giving it the look of a World War I tank on magnesium slippers. The track for the *Gee Whiz* measured 2,000 feet long, with forty-five independently actuated and pressurized brake units running for the last 1,250 feet of the track, and able to grab the rail with a combined total of four million pounds of braking pressure. Powered by jet-assisted take-off rockets leftover from World War II, donated by the Army, the rockets were capable of 1,000 pounds of thrust for five seconds.<sup>353</sup> Project instrumentation was the last to be installed: a four-channel AM/FM telemetry system, a 16mm camera mounted on the sled itself, a battery of six more Eastman high-speed movie cameras, capable of shooting at 1,500 frames per second, arranged at regular intervals next to the track to provide overlapping coverage, and a Micronex high-speed mobile X-ray unit on a frame that could be easily set on the tracks to photograph the oncoming sled head on and removed easily in time. As Ryan explains: "The collection of visual data would be at the very heart of the project's operation: it would allow them to study the performance of the restraint systems they intended to test, and would help them understand what happened to a test subject during the brief milliseconds of maximum deceleration meant to simulate crash forces."<sup>354</sup>

In other words, what was at the heart of the project was *the cinema* – and the director, producer and eventual star of these films would be none other than Stapp himself.<sup>355</sup> Like the

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<sup>352</sup> See *Time* magazine (September 12, 1955): <http://content.time.com/time/covers/0,16641,19550912,00.html>

<sup>353</sup> See Craig Ryan, *Sonic Wind*, 88-89 for more details.

<sup>354</sup> Craig Ryan, *Sonic Wind*, 89.

other professional scientist/engineers turned amateur filmmakers (Hugh DeHaven and Derwyn Severy – who will be discussed next), Stapp was learning on a curve, making it up as he went along. Like most filmmakers, he quickly learned there was more to all this than just pointing a camera (or three) and shooting. Unlike the others, Stapp was starring in most of his own films too. And like most actor-directors, he soon learned the best way to capture himself on film. For Stapp, this started with the removal of the bulky aluminum shell that the *Gee Whiz* was originally delivered with. Never liking the shell in the first place, Stapp asked his crew to remove it, replacing it with a single-panel windscreen on the leading edge of the sled to protect its single rider from the wind and any solid object caught up in it. (Eventually he would ask for this, too, to be removed.) As Ryan explains:

The subject would still be protected from windblast but would now be revealed for the benefit of high-speed telephotography, spotlighted by the brilliant Mojave sunshine. A color motion picture camera was mounted on the floor of the chassis pointing up at the subject, and stationary black-and-white cameras operating at 2,000 frames per second positioned along the track would capture overlapping profile views of the subject as the sled hit the braking section. The team erected a white-sheeted plywood backdrop across from the cameras to provide a solid background.<sup>356</sup>

These fascinating details in Ryan's biography reveal a lot about the maturation of Stapp's filmmaking process. By removing the shell, the vehicle ceases to be a star of these films. Instead, the focus becomes Stapp's body. Viewers juxtapose the solidity of the seemingly all-too-thin shoulder belts versus the violent effects of the elements on Stapp's exposed flesh. And in color, no less! (In 1947, only 12% of American films were made in color, making this the sort of deluxe treatment only given the biggest and best productions from the biggest and best studios in Hollywood.<sup>357</sup>) While close ups of the star were shot in color, the action of the experiment is shot

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<sup>355</sup> It should be pointed out here that Stapp was almost forty years old when he did his first run on the rocket sled. So this should not be dismissed as some "folly of youth." He was, however, under almost constant criticism from fellow Air Force members, many of whom ranked above him; a group of haters and nay-sayers which Stapp himself summarily dismissed in his journal as the "Mahogany Desk Crowd" or "Stamp Out Stapp" contingent. Most of his detractors were career men in the Air Force who felt that Stapp was guilty of self-promotion, a publicity seeker putting himself first, and the Armed Forces second. But Stapp felt that publicity was at least one important component of his continued testing. As far as he was concerned, it was largely responsible for keeping the program alive.

<sup>356</sup> Ryan, *Sonic Wind*, 129.

<sup>357</sup> David A. Cook, *A History of Narrative Film*, 2<sup>nd</sup> Edition (New York: W.W. Norton & Company, 1990).

from a safe distance, and in black and white. By his historic and record-setting final run in 1954 in his second-generation rocket sled, the *Sonic Wind*, the experiment was shot from a variety of color and black and white cameras from a variety of vantage points and angles, but in the early films the footage is black and white, so the earliest color footage remains unseen by the public. This newsreel footage reached a worldwide audience in films like Universal-International News' newsreel *Fastest Man On Earth*, (1954), an episode of CBS news magazine show *The Search* titled "U.S. Air Force School of Medicine" (1958), a number of U.S. Air Force produced documentaries like *Space Age Railroad* (1954) and *Holloman – Frontier of the Future* (1955) and one of the first driver's education films, *Crash and Live* (1955).

*Crash and Live* opens with an ominous countdown on the soundtrack – something filmgoers would have been used to hearing and excited to hear since the launch of the U.S.'s first rocket from Cape Canaveral in 1950. But instead of a rocket pointed at the heavens, we instead are introduced to Stapp being strapped onto his new *Sonic Wind* rocket sled that points horizontally, clad in only a helmet and flight suit. The sequence is intercut with a military commander spelling out the countdown into a microphone against a backdrop of music that builds dramatically. On each count we see a different shot – Stapp in the sled, hands at switches, a clock on the wall, the military commander, Stapp's POV of the tracks appearing to form V that joins at the horizon. After another voice announces "missile away" [obviously from another source, as the volume is lower, and of course Stapp wasn't riding a missile...exactly] we see a wide shot of Stapp's sled, rockets firing. The camera pans to follow it jet away across the desert flats. A second panning shot picks it up as it speeds across the screen for a second time, then we hear the sound of a rocket firing drowning out the music for rest of sequence.

Strapped into the seat like he is, Stapp is clearly at the mercy of both nature and machine. The focus here too is the man-machine hybrid, a hyperspeed version of the Driver-Car; the unyielding metal of the sled frame and shining metal tracks anchored resolutely to the hard-packed desert floor serve to frame the vulnerable and fleshy figure. The absence of any nest is

precisely the point here. Neither airplane nor automobile, this is the essence of a vehicle distilled down to its very basics; pure structure affixed with a throne (just apply speed). The measure of the physics and physical challenges only become clear when viewing the films in slow-motion. If the cinema was truth at twenty-four frames per second (as Jean-Luc Godard would claim a decade later), then cinema at 2000 frames per second must surely be *law*. “Not many of us I know are exposed to these hazards.” the announcer intones solemnly as the film cuts to a fairly close up-angle shot of Stapp’s body, now attired only in pants and white-t-shirt and NO helmet. His pants and skin ripple in eerie slow motion for the duration of the five-second shot. “Yet the protection of the human body is a vital concern to all of us. And many of today’s common safety devices have had their origins in specialized occupations.”

We meet our narrator, Mark Fleming, standing on the street, arms crossed outside The Rotunda at Cornell University telling us of the preparations for an “unusual safety forum” that is about to happen – a gathering of over a hundred safety experts from all over the country to discuss the future of automobile safety. The first speaker is John Paul Stapp, now in formal military garb, describing his most recent (and final) rocket sled ride of 632mph.<sup>358</sup> As Stapp speaks we see footage of him being unstrapped from his sled. “The fact that a properly shock-mounted human body seated in a forward-facing position can sustain four tons of force applied within a quarter of a second and suffer no disability is just as significant for automobiles as it is for airplanes,” he explains. Next up to the podium is John Moore, Director of Automobile Crash Injury Research at Cornell University Medical College, who tells us: “Aviation experience has demonstrated that people can be packaged – as effectively as merchandise has been packaged to prevent damage. First we find that the automobile package is a relatively safe structure. Our data indicates that ejection from the car more than doubles the risk of moderate to fatal grades

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<sup>358</sup> Stapp’s most famous test was also his last. Reaching a speed of 632 miles per hour (literally faster than a speeding bullet), and brought to a stop in just over a second, made Stapp, at age 45, literally the fastest man alive -- a title proclaimed now not only by *Time Magazine*, but also *Collier’s*, *National Geographic* and Ralph Edwards, when he introduced Stapp’s appearance on the television program, *This Is Your Life*. Although Stapp made plans afterwards to conduct further experiments at even faster speed, the military finally stepped in and ordered him to stop.

of injury. This finding destroys the theory that it's safer to be thrown clear.” The film acts as a pivot point, marking the shift from the investigation of aviation safety to automobile safety, by providing a series of experts on aviation safety testifying to the fact that their findings are equally applicable to the automobile. *Crash and Live* would prove to mark the beginning of the zeitgeist, not only in terms of the focus of researchers, but the focus of an entire branch of filmmaking still largely unexplored in film studies: the educational film.

The combined work of DeHaven and Stapp resulted in a fundamental paradigm shift in how science began thinking about auto safety in the 1950s. As Greg Siegel, professor of Film and Media Studies at University of California, Santa Barbara, and author of *Forensic Media: Reconstructing Accidents in Accelerated Modernity*, one of just a scant handful of books exploring the relationship of the cinema and the accident, explains:

DeHaven's and Stapp's medically oriented investigations helped to shift the institutional focus of—and change the national conversation about—automobile safety in the United States. Before the 1940s, the overriding question had been, How can accidents be prevented? and the answer, By reforming the reckless driver. (Implicit in this formulation is the notion that mishaps are eliminable because the motorist is perfectible.) By the end of the 1940s, however, the overriding question had become, How can crash injuries and fatalities be reduced? and the answer, By reengineering the automobile. (Implicit in this formulation is the notion that mishaps are inevitable but the motorcar is improvable.) For DeHaven and Stapp, the primary imperative was not to retrain the mind that moved the machine that moved the body but, rather, to rebuild the machine in line with the body's newfound robustness, bypassing the messy problem of the mind altogether.<sup>359</sup>

In both cases, the role of the cinema was equally crucial. For scientists, the power of high-speed cinematography allowed them to actually see the second collision for the first time; viewed in slow motion the truth of a car crash was finally revealed. Presented in the form of the educational film, the transformation of the crash into a spectacle via slow motion revealed the true level of violence for the first time to the Traveler-Spectator. But while neither DeHaven or Stapp seemed to have any interest in the exhibition of their films (and, tellingly, most of their

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<sup>359</sup> Greg Siegel, “The Accident Is Uncontainable/The Accident Must Be Contained: High-Speed Cinematography and the Development of Scientific Crash Testing,” *Discourse*, Vol. 30, No. 3 (Fall 2008), 353.

films remain unseen), the crash pioneer who soon followed ensured that his crash test films would have an audience that would number in the millions.<sup>360</sup>

## **CRASHING ON PURPOSE / THE PURPOSE OF CRASHING**

Just as Hugh DeHaven's pioneering research in biomechanics paved the way for John Paul Stapp's rocket sled experiments, Stapp's experiments prepared a path for a group of scientists, technicians and stuntmen at UCLA's Institute of Transportation and Traffic Engineering (ITTE), led by chief research engineer, Derwyn M. Severy. Formed by the California state legislature in 1947, the same year Stapp began his famous rocket sled tests, the ITTE was a direct response to the already unprecedented car culture of Los Angeles. While the original mission statement was to provide a comprehensive study of California transportation systems, the ITTE expanded in 1949 to include crash safety research.<sup>361</sup> Following Stapp's lead, Severy decided that the best way to study car crashes was to crash them on camera. For their initial experiments, Severy hired a group of men who crashed cars in front of a stadium audience for a living – the Joie Chitwood Auto Daredevils. The two initial studies were conducted in June 1950 and June 1951 during two of their 'performances' at the Carrell Speedway in Gardena.

Unfortunately, the tests didn't turn out quite as they had planned. As Greg Siegel describes:

In each case, a single Eastman high-speed film camera was trained on the car approaching the predicted point of impact from screen right. Timing devices, measuring boards, and other reference markers were placed in view of the camera. These manipulations of mise-en-scene, in conjunction with a Bausch and Lomb contour-measuring projector, facilitated the frame-by-frame analysis of the automobiles' movements (their material displacements and deformations) throughout the collisional process. The drivers' movements (their bodily

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<sup>360</sup> After his record-breaking run on the *Sonic Wind* rocket sled December 10, 1954, reaching a speed of 632mph, Stapp was retired from self-testing by his superiors. In 1955, Stapp channeled his celebrity status into what would be the next phase of his life work – the newly declared science of crash injury prevention – hosting the First Annual Stapp Car Crash Conference on May 17, 1955. The featured a day of scientific reports, discussion and live events, featuring staged crash tests performed live for an audience – a tradition that has continued each year since then. (The 65<sup>th</sup> Annual Stapp Car Crash Conference is set for November 8-10, 2021 in Denver, Colorado. Submit your application here: <http://www.stapp.org/currentconf.shtml>) The audience was an unprecedented gathering of two dozen individuals – including members of the SAE's Seat Belt Committee, along with a group of civilian doctors and scientists he had selected – and a handful of Air Force colleagues, and representatives from the Ford Motor Company, General Motors, American Motors, Chrysler, Studebaker-Packard, the American Medical Association, the Cornell Aeronautical Laboratory, American College of Surgeons, the Mayo Clinic, Harvard School of Public Health and the University of Minnesota.

<sup>361</sup> Lee Vinsel, *Moving Violations*, 90 and Greg Siegel, *Forensic Media: Reconstructing Accidents in Accelerated Modernity* (Durham, N.C.: Duke University Press, 2014): 175-187.

trajectories and, possibly, traumas) were not amenable to such analysis, however, as the stunt required the daredevils to duck for cover—and, in effect, disappear—behind the front-seat assembly in the seconds immediately prior to impact. Partly for this reason, the tests were of limited scientific value. Contours that could not be registered by the camera could not be measured with the projector, and contours that could not be measured with the projector were, as far as the ITTE was concerned, no contours at all. Crouched on the backseat floor, removed from the field of technological vision, the motorists' bodies remained as enigmatic and inaccessible as ever. From a research standpoint, the cars might as well have been operated by robots or occupied by ghosts.<sup>362</sup>

Adding to Severy's frustrations over the ill-fated experiments were the variables introduced by the event itself – the speeds of the vehicles, angles of approach, and timing of impact. As Siegel sees it, “the collision's material and spatiotemporal contingencies, its *accidentalities*—undermined the aims of truth-seeking researchers. The popular desire for spectacle hampered the pursuit of scientific knowledge; the allure of indeterminacy worked against the need for certainty.”<sup>363</sup>

What Siegel describes exposes a fundamental difference between Stapp and the professional daredevils. While the spectacle at the racetrack was the collision of auto-bodies made of metal and glass (necessitating the duck-and-cover of the drivers for their own protection) – in the case of Stapp's rocket sled experiments, the spectacle was centered on his own body, strapped to the sled, a pulpy measure of the strain of speed. For Severy, the seemingly unavoidable accidents involved in filming the public event of Chitwood's Daredevils crashing into each other for a cheering crowd, drove him to seek more laboratory-like conditions for his staged crashes. It also honed his focus on the film itself; convinced that it could capture and distill the essence of the crash, the truth of it. Contrary to Stapp's ethos, Severy discounted personal accounts of crash victims. As he describes in his 1957 report for the House of Representatives: “Not only is it generally impossible to determine with reasonable accuracy the pre-impact velocity, but it is also generally impossible to be certain that post-accident observations are truly representative of what actually happened.”<sup>364</sup> The report of a motion

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<sup>362</sup> Greg Siegel, “The Accident Is Uncontainable/The Accident Must Be Contained,” 354.

<sup>363</sup> Greg Siegel, “The Accident is Uncontainable/The Accident Must Be Contained,” 355.



picture camera, however, would not be subject to such human failings. For Severy, the one thing that was even more superhuman than the miraculous bodies of Stapp and DeHaven's jumpers, was the movie camera itself and the newly-invented and wondrous high-speed film it contained.

While the ITTE maintained staff, offices and research facilities on the Berkeley and Los Angeles campuses, Severy set up his "outdoor laboratory" at an abandoned air strip at the U.S. Naval Station in Long Beach and began filming his crash tests in February 1954.<sup>365</sup> Severy's vehicles were populated with anthropometric dummies – later known as "crash test dummies" – weighted like average male human beings, positioned via metal joints, and wired with electrical sensors. Paul Niquette, an ITTE technician described the motion picture camera set up in a 1954 issue of *California Engineer*:

Two GSAP [Gun Sight Aiming Point] movie cameras mounted on the shelf behind the back seat of the crash-car revealed additional information on the dummies' motion during impact. Another camera located thirty feet from the barrier panned the movement of the car and truck as they sped toward the barrier. A similar motion picture camera mounted on top of the instrument truck, trained forward on the car and barrier, points up steering problems and crash behavior.<sup>366</sup>

Additionally, Niquette points out, the crashes were also shot with a high-speed still camera, that snapped a photograph two-hundred milliseconds after the impact, which he notes "was the time of zero forward velocity, approximate maximum deceleration, and greatest crush-in volume."<sup>367</sup>

While the use of high-speed film enabled Severy's team to slow down the process of the crash, the combined use of the oscilloscope and the high-speed still camera brought it to a complete stop. The dialectic of the slow motion and still camerawork was meant to distill the catastrophic process of the crash into a slowed-down, singular event. Instead, what Severy discovered, was something DeHaven already knew – in every crash there are actually two

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<sup>364</sup> Derwyn M. Severy, John H. Mathewson, and Arnold W. Siegel, *Statement on Crashworthiness of Automobile Seat Belts*, Report for the Subcommittee of the Committee on Interstate and Foreign Commerce of the House of Representatives (Los Angeles: Institute of Transportation and Traffic Engineering, University of California, 1957) 1.

<sup>365</sup> This information taken from UCLA's own website entry for the Institute for Transportation and Traffic Engineering: <http://www.seas.ucla.edu/seas/pubinfo/fifty/50th5.html>

<sup>366</sup> Paul Niquette, "Engineered Automobile Crashes," *California Engineer* 32, no. 7 (1954): 14-15. (Also available online: <http://www.niquette.com/articles/carcrash.html>)

<sup>367</sup> Paul Niquette, "Engineered Automobile Crashes," 15.

collisions – the initial collision of the car body with whatever it impacts with (a car, a wall, another person, a center divider) and the second collision of the bodies inside the vehicle with the interior of the car itself. In most cases the time between the first and second collisions was indistinguishable by the naked eye, but with the advent and eventual normalization of high-speed cameras in crash tests, these collisions became clearly separable events on the timeline – each with its own set of reactions that could be tracked. Siegel recognizes this discovery as a crucial paradigm shift in auto safety:

Prewar auto-safety discourse acknowledged only the most obvious collision in an accident: that between the vehicle and an object outside it. The car crash was conceived simply as a chance meeting of two entities external to each other, and the moment of contact between those entities – the instant of impact – was considered undeserving of attention and, in any case, forbidding in its opacity. The destructive split second was held to be undivided, internally undifferentiated, and so dense as to be without duration. Postwar auto-safety discourse, by contrast, identified and emphasized an additional, less obvious collision: that between the vehicle and an occupant inside it. This chronologically second collision, occurring mere milliseconds after the first, was the collision of urgent import, as it was the one that maimed or killed.<sup>368</sup>

In effect, we see the birth of the cinema itself replaying in reverse. Just as Muybridge's pre-cinematic innovation, the zoopraxiscope, would reveal the mysteries of motion, Severy's cinematic tests would provide the reveal the mysteries of the catastrophic action of the car crash that were too fast for the human eye to decipher. But while Muybridge sought to sew together his high-speed photographs into a series of projected moving images, Severy used the strip of high-speed film to slow motion down to the point just before it became a series of stills. In this sense, the time-space of the crash – and certainly the second collision – is purely cinematic. As a result, the truth of the second collision can *only* be accessed via slow motion photography enabled by the innovation of high-speed film and the motion picture camera.

## **DURATION DILATION: CHRONOS, CHAOS, AND THE CAR**

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<sup>368</sup> Greg Siegel, *Forensic Media*, 189.

As the filmed experiments of Severy, Stapp and DeHaven proved, the time-space of the crash, too quick to be glimpsed by the human eye, can only be accessed via the intervention of the cinematic POV enabled by high-speed photography. The revelation of the second collision, virtually invisible to the naked eye, as the impact truly responsible to the human body, is crucial to the configuration of the chronotope of the crash. In this time that is too brief to be captured by the naked eye, the automobile itself is transformed, and with it, its categories of nest and shell. Inside can become outside in literally an instant. Simultaneously, this can also be true of the human body, its categories of inside and outside irrevocably altered.

While the unseen truths of the unique time-space of a crash can only be accessed via the intervention of slow motion photography, the perception of a person *in* a crash also becomes more cinematic, with our own brains also seeming to perceive traumatic events in slow motion. Like so many relations of automobility and the cinema, no-one has yet identified which came first – if it was a case of life imitating art, or an actual reference point that our cognitive powers chose to recreate and manifest, rewriting rules of perception and cognition. In the past decade, a number of researchers in cognitive science have been looking for a scientific explanation for this phenomenon. The results thus far are just theories. As one pair of cognitive neuroscience researchers in Europe found: “The analyses of hundreds of reports after accidents revealed that 71% of people recall experiencing an altered passage of time. They recalled the duration of the event as much longer than it actually was and what was happening during an accident seemed to slow down. Moreover, in these situations, people often find that they are thinking very quickly.”<sup>369</sup> These researchers, who have been investigating this phenomenon for almost a decade now, offer two possible explanations for this phenomenon. The first explanation, which many researchers give, is that our brain processes the crash as a situation of ‘fight or flight;’ knowing survival is at stake helps to slow the outside world down, making us feel as if we have more time to make decisions. What is really happening, however is that our own bodily

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<sup>369</sup> Marc Wittman and Virginia van Wassenhove, “Why Time Slows Down During an Accident,” *Frontiers for Young Minds* (July 6, 2017), <https://kids.frontiersin.org/article/10.3389/frym.2017.00032#refia>. Accessed May 23, 2020.

processes are speeding up, making it seem as though the world around us is slowing down. In this situation, the arousal level of our bodies is at its absolute peak, increasing our chance of survival. “Because the body and mind are in a mode of extreme speed, it seems like what is happening outside in the world then slows down,” Wittman and Wassenhove explain. “Because everything seems to slow down in the environment, we see and hear more details of what is happening, which in turn leads to the feeling that the event lasts longer than it actually does.”<sup>370</sup>

Another theory that many scientists believe is that our memories function differently during times of trauma. In a 2007 article, a team of neurobiologists in Texas reported that “duration dilation during a frightening event, and the lack of concomitant increase in temporal resolution, indicate that subjective time is not a single entity that speeds or slows, but instead is composed of separable subcomponents. Our findings suggest that time-slowness is a function of recollection, not perception: a richer encoding of memory may cause a salient event to appear, retrospectively, as though it lasted longer.”<sup>371</sup> These findings were based on a series of experiments using a testing device called the Suspended Catch Air Device in Dallas, Texas which suspends test subjects 150 feet above the ground facing the sky then dropping them into a net below about three seconds later. For the experiment, each participant was outfitted with a device known as a perceptual chronometer, which looks something like a clunky wristwatch that flashes random numbers just a bit too fast to read. If indeed their brains were functioning faster than normal they should have been able to read the numbers during freefall. But they couldn’t. However, at the same time, every test subject insisted that time seemed to slow down during the fall. Their published findings, like most scientific articles on the phenomenon make explicit reference to the use of slow motion in film, specifically in the example of a car accident. As they explain, “The experimental question, for the present purposes, is what it might mean for ‘time’ to move in slow motion. If time as a single unified entity can slow down – the way it does in movies – then this

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<sup>370</sup> Ibid..

<sup>371</sup> Chess Stetson, Matthew P. Fiesta, and David M. Eagleman, “Does Time Really Slow Down During a Frightening Event?” *PLoS One* 2(12): e1295, Ed. David Burr (December 12, 2007), <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0001295>. Accessed May 23, 2020.

slow motion should entail consequences such as an ability to perceive events with higher temporal resolution.”<sup>372</sup> In this case, they seem to be using the experience of slow motion in a film as the control group by which to compare the experience of a real event.

The one question none of these scientists thought to ask their test subjects was: *Have you ever seen a car crash in slow motion in a film?* Given its ubiquitous usage for decades, perhaps the answer made the question too obvious to ask. However, that begs the bigger question, as yet unanswered: How does seeing slow motion car crashes on screen influence a Traveler-Spectator’s own conception of time during a traumatic event? British psychologist, Dr. Steve Taylor, who has written a book on the subject of duration dilation, *Making Time: Why Time Seems to Pass at Different Speeds and How to Control It*, has a different theory altogether. He believes that the time-slowing effect is due to an abrupt shift to a different mode of consciousness:

Our normal sense of time passing is a function of our normal state of consciousness. There are many varieties of ‘altered’ states of consciousness in which time slows down drastically: the ‘zone’ experiences of athletes, for example, in states of deep meditation, or under the influence of psychedelic drugs such as LSD. There are also some altered states in which time appears to pass very quickly, such as hypnosis and ‘flow’ states. All of these states show that our normal sense of [time] passing isn’t absolute or fixed – it’s just a psychological construct, dependent on a certain ‘mode’ of consciousness.<sup>373</sup>

To Taylor, it is a question that revolves around one’s sense of self. Change the self, and you alter that self’s relation to time; the more dramatic (or violent) the change in self, the more dramatic (or violent) the change in perception of time. As he explains,

[...] Radically different perceptions of time are due to the dissolution of our normal ‘self-system’ – the system of psychological structures and processes which constitutes our ‘normal’ state of mind. This system constitutes who we perceive ourselves to be, and we experience the world through it almost all the time. But occasionally this self-system dissolves away, and suddenly we experience the world (and ourselves) in a completely different way – one feature of which is a radically different perception of time.<sup>374</sup>

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<sup>372</sup> Ibid..

<sup>373</sup> Steve Taylor, “When Seconds Turn Into Minutes: Why Do Accidents and Emergencies Make Time Slow Down So Radically?” *Psychology Today* (January 18, 2014), <https://www.psychologytoday.com/us/blog/out-the-darkness/201401/when-seconds-turn-minutes>. Accessed May 23, 2020.

<sup>374</sup> Ibid..

The use of slow-motion in the scientific cinema of crash test films, like the ones made by DeHaven, Stapp and Severy, seems closer to the explanation of slowed-down time according to cognitive theory. In an attempt to access the truth of the traumatic event, there is a richer encoding of details. This is certainly an apt description of the *modus operandi* of DeHaven, Severy and Stapp, turning to the cinematic camera and high-speed film to encode these events at a rate of 1000 to 2400 frames per second (instead of the then-standard 24 frames per second).<sup>375</sup> It is interesting, too, that 21<sup>st</sup> century research in cognitive science on a question predominantly associated with the car crash – *why does time seem to slow down?* – returns to the form of experiment that Hugh DeHaven was forced to first investigate back in the 1940s because of the lack of interest in the question of the car crash – i.e., people falling from extreme heights. The circle is surely coincidental, but just as surely figures into the aforementioned idea of the Primal Crash, and culture’s continued replaying of the event to get at some scientific truth(s) of the horrible, violent, traumatizing act of the crash.

### **A CLASSROOM CRASH COURSE IN GORE AND/OR SLOW MOTION**

The first sets of eyes to see the stunning footage of the crash tests filmed by Severy’s team at UCLA were the same ones to first see the grisly 16mm color footage of the aftermath of crashes on U.S. highways – and they all belonged to teenagers. About forty million of them, in fact. Starting in the 1950s most teens’ first introduction to driving took filmic form in a classroom setting. Grouped under the descriptive term “driver’s education films” (or, more colloquially, “driver’s scare films,”) these educational films that began in the 1950s and stretched well into the 1980s were largely responsible for the crash test footage of Severy and Stapp finding an audience. Originally presented and/or endorsed by established government institutions like the National Highway Traffic Safety Administration, the National Safety Council or the U.S. Public Health Service, the most infamous releases like *Safety or Slaughter* (1958)

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<sup>375</sup> As reported by Severy’s associate Paul Niquette. See Paul Niquette, “Engineered Automobile Crashes,” *California Engineer* 32, No. 7 (1954): 14-15; also available at [www.niquette.com/articles/carcrash.html](http://www.niquette.com/articles/carcrash.html). Accessed April 10, 2020.

*Signal 30* (1959), *Red Asphalt* (1960), *Mechanized Death* (1961), *Wheels of Tragedy* (1963), *Highways of Agony* (1969) and *Death on the Highway* (1971) found new life in the 1980s on VHS and in the 1990s on DVD thanks to the Something Weird distributor, marketed as cult film compilations advertised as “Real-Life Traffic Splatter!” or “Mechanized Death!”, before achieving life eternal in the 21<sup>st</sup> century on similarly themed YouTube Channels. But equally influential are the group of driver’s education films that preceded them and continued being produced at the same time like *Crash Research* (1955), *Crash and Live!* (1955), *Safety Through Seat Belts* (1959) and *Safety Belt for Susie* (1962), that devote much of their brief running times to the stunning slow motion footage captured on high-speed film from a variety of striking angles by no less than the filmmaking teams of Derwyn Severy and John Paul Stapp.

Driver’s education films were of course just one genre out of literally hundreds that the broad catalog of educational and social guidance films offered. But the audience for these numbered in the millions, and stretched out for *generations*. These were films presented from a position of authority, and a mandatory part of a student’s education for decades. So to say that these films were influential is a severe understatement. The small handful of critical discussions of driver’s education films focus on their violent and gory portrayals of serious and fatal crashes, which, by the late 1950s are a sort of variation (and precursor) of the infamous *Faces of Death* films, albeit focused entirely on the world of automobility. Karen Beckman singles out the “gory aesthetic of the driver-education films” as a kind of “gruesome cinematic ‘autopsy’ (or ‘seeing for oneself’), which seemed full of cautionary pedagogic value.”<sup>376</sup> Of course, this is what they were designed for, although the lessons each film provided depended largely on who funded them, as Ken Smith points out in *Mental Hygiene: Classroom Safety Films 1945-1970*, in a chapter devoted to highway safety films: “In this uneven world, where minor auto accidents were often fatal and the driver shouldered all the responsibility, highway safety films flourished. Their purpose varied: those sponsored by insurance companies and the auto industry tried to shift

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<sup>376</sup> Karen Beckman, *Crash: Cinema and the Politics of Speed and Stasis*, 113.

blame onto drivers; those produced by independents tried to provide a media counterbalance to Detroit's siren song of power and speed."<sup>377</sup>

According to Smith's well-researched book, the first published on educational films, the audience for driving safety films only shifted to the teenager in 1950, when a film called *Last Date* pointed an accusatory finger at teenagers as the drivers single-handedly responsible for the twenty percent jump in traffic fatalities that year. In the film, produced by insurance company Lumbermen's Mutual Casualty Co., we are introduced to a group of thrill-crazed teenage drivers led by a crazed sociopath (played by a 22-year old Dick York, later of *Bewitched* fame). Supported by concerned business interests across the country, the film played in downtown theaters, classrooms and high school gymnasiums, reaching an audience of three million people in just its first eight months of release. But according to Smith, *Last Date* (1950) and the subsequent films it inspired like *Borrowed Power* (1951), *Car Theft* (1956) and *What Made Sammy Speed?* (1957), did nothing to stem the mounting epidemic of carnage on the roads:

Death tolls continued to climb as engine horsepower increased. That relationship was ignored; new scapegoats were sought. 'Permissive' education was the next target. Accidents continued to happen, the argument went, because teenagers no longer believed the predictable shocks delivered by the highway safety films. A tough new approach was needed.<sup>378</sup>

The tough new approach appeared in 1958 in a Canadian production by Budge Crawley, who was responsible for many of the 'classic' mental hygiene films of the preceding ten years: *Age of Turmoil* (1953), *Is This Love?* (1957), *Social Acceptability* (1957). Crawley's breakthrough was to insert footage of real accident scenes into his highway safety film titled *Safety or Slaughter* (1958).<sup>379</sup> The resulting film, now considered the first "educational gore film," is alternately static and dry (during the interminable sequences where the narrator cites statistics on highway safety) or violent and bloody (during the brief cutaways to documentary footage of

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<sup>377</sup> Ken Smith, *Mental Hygiene*, 75.

<sup>378</sup> Ken Smith, *Mental Hygiene*, 76.

<sup>379</sup> This ground-breaking film is also available on YouTube, though the host credits its release to 1965: [https://www.youtube.com/watch?v=mfAG\\_W5KW-Y](https://www.youtube.com/watch?v=mfAG_W5KW-Y)



actual crash sites as injured human bodies and corpses are picked up by paramedics and highway patrolmen).

*Safety or Slaughter* opens with a tense twenty-second sequence of an ambulance racing towards a car overturned and on fire on a roadside as a small crowd gathers to watch. We get several quick shots of severe crashes – glimpses of overturned cars, crumpled trucks and radically reshaped automobiles, now just twisted shapes of metal – but no sign of any humans, no indication of the shape of their bodies. There is a dramatic cut to a tiny toy car, turned on its side, then a wider shot of our narrator as he picks up the tiny car, and introduces himself as Gordon Anderson, general manager of the Industrial Accident Prevention Association of Ontario, Canada. He informs us in an unaffected monotone that auto accidents account for nearly 1/3 of all fatal industrial accidents, more than any other single cause. “Cars get better and safer all the time,” he assures us, and so do the roads and indeed all engineered factors of both automobiles and roads. “There’s only one catch. This machine,” he warns us as he points to a bizarre illustrated image of a man’s face in cut-away so that we see his full eyeball in the socket, linked by fibers to a brain and the spinal column plugging into it. “Only it’s not made of steel and rubber,” he reminds us. “Nothing wrong with our cars,” he insists. “So you know the fallible factor in driving, don’t you? It’s you and me. Yes, the fact is, it’s the driver and his errors that cause 81% of all accidents.” At around the four-minute mark, as if realizing he might be losing his audience, he offers: “Maybe you think statistics are dull. But you know, every one of these statistics is a person. I’d like to show you a few statistics.” At this point the film cuts dramatically to documentary footage of an ambulance parked on a roadside where a paramedic prepares a stretcher. The camera pans to the left to reveal the body of another man lying in the ditch. “That man is a statistic in some accident record,” our narrator points out. The film cuts to a shot of the same paramedic now covering another man lying in a ditch under a bloody blanket, as our narrator adds: “And so is he.” What follows is a sequence of various shots of accident sites: a head-sized hole smashed in the passenger-side window of a white sedan, the limp body of a man

being lowered by three police officers into a black zippered bag next to an overturned car, a woman's lifeless body placed face down on a stretcher as a listless crowd mills around in the background. Again the sequence lasts barely twenty-five seconds, disappearing as quickly as it began, replaced by the medium-shot of the stiff torso of our reassuring monotoned narrator. "Those people weren't actors. They were real, like you or me. Experiencing tragedy. That's what we mean when we ask: 'safety or slaughter?'"

Again, the film shifts gears in tone and visuals, turning to a discussion of the everyday challenges of driving; the question of speeding up or slowing down, passing or waiting. During this one-sided discussion we see footage of an everyday drive. First we get an establishing shot of traffic from a vantage point beside the road, before cutting to a fairly close up shot from inside the car of our driver at the wheel, a white male in his late twenties in a suit, tie and hat. Although the landscape seen through the driver's side window behind him is out of focus, we can make out enough to know two things: (1) it is a barren flat countryside; and (2) it is the real space he is driving through in real-time, and definitely *not* rear-projection. Now we get a shot of the traffic ahead of us, shot by a camera inside the car moves out from behind the truck it is following to pass, but slides back almost as quickly, averting the car approaching head on in the opposite lane. The last shot of the sequence is a quick whip-pan, starting with a look down the street to the left as we move through an intersection to a quick readjustment from the driver's POV of the road ahead, shot from behind the dashboard where we see a hand on the steering wheel enter the frame as he completes the turn.

The significance of this sequence is the fact that this is footage of a man driving his car through a real environment; footage of him, his perspective on the road, at the controls all shot within the car – a vantage point virtually unseen in the cinema at that point. Although not as shocking as the footage of actual crashes and victims, comparing it to what automobility looked like in narrative films in 1958 is almost as jarring. A sequence like this in a narrative film of the period would have certainly been shot in a studio using rear-projection as a backdrop. Even if it

included footage of an actual car on the road, it likely would have sped up the film to represent any sort of speed. At that point, only a small handful of feature films had offered audiences such exciting glimpses of automobility, including most notably *Gun Crazy* (Joseph H. Lewis, 1950) and *Kiss Me Deadly* (Robert Aldrich, 1955).<sup>380</sup> The next closest thing to this representation of automobility would only appear two years later in France in the form of Jean-Luc Godard's breathtaking debut, *À Bout de Souffle* (1960), and not take hold in the U.S. until after the publication of Ralph Nader's influential 1965 best-seller, *Unsafe at Any Speed*.

The educational film that followed a year later remains the most infamous (and gory) in driving safety film history: *Signal 30* (1959). While *Safety or Slaughter* has the distinct credit of being the first traffic safety film to portray actual car crashes and victims, the grisly footage only makes up about two minutes of the twelve-minute running time of the film. *Signal 30*, however, features a truly nonstop montage of blood, gore and death, stretching for its entire twenty-seven minute run time. According to Smith, *Signal 30*'s producer Richard Wayman came up with same innovative idea of filmic shock therapy as *Safety or Slaughter*'s producer, Budge Crawley, at about the same time. But for Wayman, a partner in the prestigious accounting firm of Ernst & Ernst at the time, the interest in auto safety started as something entirely personal.

According to his business partner, Earle Deems, Wayman became interested in highway safety after a friend was killed in a car crash. Wayman's job required him to drive frequently between Cleveland and Columbus, the state capital, so he had a police scanner installed in his car, tossed a camera in his backseat, and began snapping pictures of auto accidents and victims whenever he heard of one nearby. The resulting labor of love was assembled into a highway safety slide presentation that he distributed free of charge to every state trooper post in Ohio. The police were impressed. One of the patrol superintendents learned that Wayman also owned a 16mm motion picture camera and reportedly asked, 'Did you ever think about making a movie?' Apparently Wayman hadn't, but the idea appealed to him. Dick Wayman, who earned an estimated \$300,000 a year, bought another movie camera and gave it to a newspaper reporter he'd met at accident scenes. Between the two, and with contributions from troopers who had filmed the aftermath of bloody accidents on the Ohio Turnpike he spliced together a thirty-minute film, joining its segments with a narration of broad injunctions — 'Death is forever' — and lurid descriptions — 'His occasional moments of semiconsciousness are filled

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<sup>380</sup> Both of these films are discussed in the previous chapter.

with agonizing screams.’ He titled the film *Signal 30*, the Ohio State Highway Patrol’s code for death on the highway, and released it in 1959.<sup>381</sup>

Reports of the initial success of the film vary. But the film made enough of a mark for Wayman to form his own production company, Safety Enterprises, Inc., housing it in a nonprofit organization known as The Highway Safety Foundation, which would go on to make fourteen films between 1959 and 1979, including the lesser famous, but equally gory *Mechanized Death* (1961), *Wheels of Tragedy* (1963) and *Highways of Agony* (1969).

The fact that the first incarnation of *Signal 30* was a sort of traveling slideshow that circulated through police departments in Ohio is revealing. This effectively locates the origins of the *driving safety gore film* (a term I am coining here to describe the sub-sub-genre of the educational film) in the form of the still photograph and the tradition of the magic lantern show. The slide projector was, after all, the 20<sup>th</sup> century update on the magic lantern, first developed in the 17<sup>th</sup> century and still in use in some institutions up until the invention of the slide projector.<sup>382</sup> By the 1950s, the slide projector was in widespread use, as both a common form of home entertainment, with family members and friends gathering in the living room to watch slide shows taken during vacations or events, and in educational and other institutional settings.<sup>383</sup> So the fact that the traveling slide show was Wayman’s first choice to disseminate the grisly truths about the epidemic of car crashes plaguing the highways made a lot of sense, even if

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<sup>381</sup> Ken Smith, *Mental Hygiene: Classroom Safety Films 1945-1970* (New York: Blast Books, 1999), 79.

<sup>382</sup> Interestingly, the oldest known document regarding Christiaan Huygens’ sketches for the invention in 1659 featured ten small sketches of a skeleton removing its skull, effectively locating the origins within the macabre and the body in pain. (See Christiaan Huygens, “Pour Des Representations Par le Moyen de Verres Convexes a la Lampe,” *Oeuvres Completes de Christiaan Huygens*, Tome XXII, Supplement a la correspondance. Varia. Biographie. Catalogue de vente (1950 [1659]). [https://www.dbnl.org/tekst/huyg003oeuv22\\_01/huyg003oeuv22\\_01\\_0093.php](https://www.dbnl.org/tekst/huyg003oeuv22_01/huyg003oeuv22_01_0093.php). Accessed June 13, 2020.) The earliest reports and illustrations of lantern projections reveal that most early magic lantern shows were intended to scare the audience, which explains why many of the format’s first critics referred to the invention as the “lantern of fear.” By the late 1700s the magic lantern had become a standard component of science lecturing and museum events, and starting in 1820, with the introduction of mass-produced glass lantern slides, classrooms. In 1850, brothers William & Frederick Langenheim invented the first photographic slide – calling it the Hyalotype – printed on glass like the earlier painted versions used for magic lanterns, resulting in the first ever projection of photographic images. It wasn’t until 1937, the year after Kodak’s introduction of Kodachrome reversal film for use in 35mm still cameras, that the first generation of photographic slides and slide projectors is introduced. (See Allan T. Kohl, “Revisioning Art History: How A Century of Change in Imaging Technologies Helped to Shape A Discipline,” *VRA Bulletin*, Volume 39, Issue 1 (December 2012), <https://online.vraweb.org/vrab/vol39/iss1/2>. See also: “A Brief History of Slide Projectors,” on Kodak’s website: <https://resources.kodak.com/support/pdf/en/manuals/slideProj/history.pdf>. Accessed June 13, 2020.)

<sup>383</sup> “History of Slide Projectors,” <https://www.ithaca.edu/academics/school-humanities-and-sciences/visual-resources-collection/history-slide-projectors>. Accessed June 13, 2020.

he was preaching to the proverbial choir in terms of an audience, since the Ohio State Police would have already been all too aware of the problem.

These were images shot with a very specific point of view in mind – that of police officers – who of course were more readily exposed to the level of gore and violence than the eventual audience of teenagers in a classroom. With this shift in audience comes a necessary shift in context. Predating Warhol’s more famous appropriation of newspaper photos of car crashes in his *Death and Disaster* series by several years, *Signal 30* and the sub-sub-genre of driving safety gore films it spawned, brought the accident photo to moving, visceral life (and death) on screen in vivid Kodachrome color. Accident photographs had begun appearing in muckraking newspapers and the sensational tabloids associated with “yellow journalism” in the 1920s, so many adults would have seen images like this in black and white – but not in color, and certainly not moving.<sup>384</sup> (It would be another four years before the bright red splatter of full color gore hit the big screen with the release of Herschell Gordon Lewis’ *Blood Feast* in 1963.) The traces of the film’s origins manifest themselves in the closing sequence, with all motion ceasing, replaced with a sequence of photographic stills. While the images cease to move, the camera slowly zooms in on the bloody faces in the center of each frame, then holds in close up, or even extreme close up, even as the narrator protests: “We don’t like to take these pictures – but, whether we show you or your loved ones in the sprawl of death, is largely up to you. You can be, if you wish, just another ‘Signal 30’.”

In *Signal 30* we are seeing images shot from three converging points of view: (1) the amateur filmmaker, Wayman, motivated by grief and anger resulting from the death of his friend in a motor accident, shooting accidents on film based on a suggestion from the Ohio police; (2) the newspaper reporter Wayman had met at other accident sites; so, a man used to viewing such violent scenes, viewing them from a reporter’s expertise, and knowledge of what angles to shoot for newspaper photographs; (3) police troopers who were shooting footage of grisly accidents for

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<sup>384</sup> For a fascinating history of the rise of sensationalism in journalism, see David B. Sachsman and David W. Bulla, Ed. *Sensationalism: Murder, Mayhem, Mudslinging, Scandals and Disasters in 19<sup>th</sup>-Century Reporting*, (New York: Transaction Publishers, 2013).

the Ohio Police Department's own archives. There is of course no way of knowing just who shot which sequence in the film as there are no credits for direction or cinematography given in the film – typical for an educational film at the time – and only Wayman is given credit on IMDB. But thinking of the film originating from these disparate points-of-view is enlightening, especially as this film provides the template for all the driving safety gore films that follow. Of the three, only the Ohio police officers had previous experience as filmmakers; they would have known technical details that Wayman and the reporter would have had to learn on the fly: using the camera, how to shoot at night, basic ideas of composition. They also would have been shooting for a set of very different purposes; for the police, accident photos and films are meant to stand in for memory. This was a visual register of the accident scene before anything or anyone was removed, so they would be able to review it; to determine blame or guilt for the accident, to recreate the events leading up to the accident. The original, intended audience for these films was limited to the closed system of the law: police officers, medical examiners, prosecutors, judges, juries. From this perspective, there is no room for spectacle, only evidence, so shooting these images required a very specific skillset. As Katharine Dunn describes in her introduction to *Death Scenes*, a book on early 20<sup>th</sup> century forensic photography:

Experienced death workers throw a professional switch in their brains and see the face more clearly. Their eyes methodically link dismembered limbs, realign a rictus grin, and separate identity from wreckage. Coolly. As connoisseurs. For the investigators a dead body is not so much victim as evidence, the ultimate clue to the workings of the perpetrator. [...] The surgeon, the burn ward nurse, emergency room attendants, paramedics, firefighters and cops, all those who scrape the still-screaming remains out of car wrecks, must cultivate their off-switch.<sup>385</sup>

A reporter at accident scenes would have also assumedly had a similar 'off-switch,' while Wayman eventually obviously cultivated his own, going on to produce the equally gory *Mechanized Death* and *Wheels of Safety*, among others. For both Wayman and the reporter, it was the spectacle of the accident that drew them to it, and what they attempted to capture in

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<sup>385</sup> Katherine Dunn, *Death Scenes: A Homicide Detective's Scrapbook*, Ed. and Designed by Sean Tejaratchi (Los Angeles: Feral House, 1996), 11-12.

their amateur footage. The goal was drama, tragedy, humanity, sparking important questions like what lessons can be learned from the spectacle, or what narrative resulted in the spectacle?

Anticipating the genres of body horror, the found footage horror film, and even torture porn, *Signal 30* is relentless in its portrayal of real horror, measured in its incessant flow of blood and corpses on screen. In her 2014 book, *Found Footage Horror Films: Fear and the Appearance of Reality*, Alexandra Heller-Nicolas describes the film as an important precursor to the found footage horror film subgenre initiated by *The Blair Witch Project* forty years later. “Like the contemporary found footage horror subgenre, poor production values are deployed in safety education films [...] as a marker of authenticity. This—along with their focus on body horror—grants road safety films a place in the prehistory of contemporary found footage horror films.”<sup>386</sup> This focus on “poor production values” and their equivalence to authenticity is an idea first recognized with respect to auto safety films by Mikita Brottman in her groundbreaking essay about *Signal 30* that appears in the 2001 book she also edited, *Car Crash Culture*, the first published book of critical essays to focus on car crashes. As Brottman describes in the case of *Signal 30*: “Poor film quality is offered as an index of truth.”<sup>387</sup> This is a point that the film itself makes clear in the opening minute of the film in the form of a scrolling statement superimposed over footage of highway traffic, which both warns and promises: “This is not a Hollywood production as can readily be seen. The quality is below their standards. However, most of these scenes were taken under adverse conditions, nothing has been staged. These are actual scenes taken immediately after the accidents occurred. Also unlike Hollywood our actors are paid nothing. Most of the actors in these movies are bad actors and received top billing only on a tombstone. They paid a terrific price to be in these movies, they paid with their lives.”<sup>388</sup>

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<sup>386</sup> Alexandra Heller-Nicolas, *Found Footage Horror Films: Fear and the Appearance of Reality* (Jefferson, NC: McFarland & Company, 2014), 43.

<sup>387</sup> Mikita Brottman, “Signal 30,” *Car Crash Culture*, Ed. Mikita Brottman (New York: Palgrave MacMillan, 2001), 233. A “signal 30” is the code name used by Ohio Police to describe a road accident resulting in fatalities.

<sup>388</sup> Opening disclaimer/promise/threat from *Signal 30* (Richard Wayman, 1959).

## **INJURIES ARE NO ACCIDENT:**

### **CRASHING ON PURPOSE/THE PURPOSE OF CRASHING**

Most of the small handful of scholars who have written about driving safety films tend to focus on the qualities that *Something Weird* amplified when they repackaged and remarketed them as cult films in the 1990s – i.e. their technical shortcomings and exploitative nature. But in fact there is a whole other branch of driver’s safety films that are highly-stylized, shot in an artificial environment under highly-controlled circumstances as they are actually happening and are free of blood, gore, and human test subjects. These films, like *Safety Through Seat Belts* (1959) and *Safety for Susie* (1962), feature prominent use of stunning slow-motion photography of crash footage shot by Derwyn Severy’s team at the Institute of Traffic and Transportation Engineering (ITTE) at UCLA, offering science as an index of truth. In these films the use of slow motion is introduced as the perspective of science itself, not as spectacle. The philosophical differences between these parallel branches of auto safety films is as strikingly different as the visual components, each stirring and breathtaking in radically different ways.

To date, the only other scholar who has written on the differences between the two types of driving education film is Greg Siegel, in an unpublished chapter from his dissertation (the rest would be published in 2014 slightly altered form as *Forensic Media: Reconstructing Accidents in Accelerated Modernity (Sign, Storage, Transmission)*, a crucial inspiration to the work you are reading now). Siegel refers to the ITTE-produced films that include slow-motion sequences and often feature anthropomorphic test devices (popularly known as crash test dummies) as “collision-experiment films,” as if they were a sort of sub-sub-genre of the education film. Siegel details the differences between the two groups of film:

Instead of incorporating scenes shot on location with non-actors (victims, police officers, paramedics, rescue workers, bystanders), collision-experiment films incorporated scenes shot on a soundstage or some other specially designated, technically prepared site (a racetrack, an airstrip, a military base, an automaker’s proving ground) with nonhumans [in the form of anthropomorphic test devices. Instead of mobilizing the truth-value of cinema-verité, with its conceit of candid realism, and the institutional authority of the state (as embodied in the highway patrolman), collision-experiment film mobilized the truth-value of high-speed



cinematography, with its claim to superhuman ‘sight,’ and the institutional authority of technoscience (as embodied in the laboratory experiment). Both gory highway-safety films and collision-experiment films attempted to provoke fear and anxiety in spectators as a means of ‘scaring them straight’ – that is as a form of negative inculcation, or, more strongly, psychological coercion – and thus can be said to have exhibited a common aim. The former, however, attempted to do so by showing what happens after an automobile accident, encouraging spectators to identify with the excruciating morbidity and untimely mortality of human beings, while the latter attempted to do so by simulating what happens during an automobile accident, encouraging spectators to identify with the vulnerability, fragility, and incapacity of human surrogates.<sup>389</sup>

In *Safety Through Seat Belts* and *Safety Belt for Susie*, featuring anthropomorphic test devices (crash test dummies) serving as human surrogates, each film carefully establishes an explicit alignment between the dummies and/or dolls seen on screen and the viewer and/or viewer’s children (who may or may not be in the theater or room with them), or in the case of the classroom, referring back to the recent childhood of these teenage spectators, through both the visuals and soundtrack. In *Safety Belt for Susie*, the visual alignment happens economically with the first three shots. The film opens with a wide establishing shot looking down on an unnamed amusement park where several rides spin and move in the narrow frame, with weird woozy soundtrack, a bit reminiscent of Maurice Jarre’s work in French director Georges Franju’s *Eyes Without a Face* (1959) and the creepy carnival scenes of actor-director Robert Montgomery’s 1947 noir, *Ride the Pink Horse*. The film cuts to a shot of a rollercoaster heading toward the camera, then quickly gives way to a POV shot from the front car – and suddenly we could just as easily be watching *This Is Cinerama* (Merian C. Cooper and Gunther von Fritsch, 1952) a decade earlier – only this is the faded color palette of 16mm and not widescreen. The first-person experience, however, is the same. We are, effectively, on the ride now, and won’t get off until the film ends eleven minutes later (metaphorically speaking anyway). Now the narrator’s voiceover takes the second step in creating alignment, asking the audience “Do you remember how much fun you had at an amusement park when you were a kid? Well, when you’re a parent, you live it all over again from the eyes of your child.” While we ponder the question offered in direct

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<sup>389</sup> Greg Siegel, “Technologies of Accident: Forensic Media, Crash Analysis and the Redefinition of Process” (PhD dissertation, University of North Carolina-Chapel Hill, 2005), 168-169.

address, at first seemingly from an omniscient narrator, we are shown a series of striking compositions of spinning, whirling amusement park rides bordering almost on trompe l'oeil.

The film's focus shifts to a family of four in the distance – a white couple in their twenties, holding hands with two little blonde girls in matching frilly dresses in-between standing next to a fence overlooking the artificial river of raft ride. When the camera zooms in on them we realize the little girl to the left is actually a life-sized doll. The fact that the living girl appears to be wearing a doll dress to match the smaller one the doll has on, signals that something here is weird. The accompanying voiceover makes it even weirder as we realize our narrator is now speaking in the first person: “That’s my little girl, Nancy. It’s her fun and folly. A treat Alice and I had promised her before sending her on a visit to grandma.” The little girl runs off, leaving her parents behind, still holding hands with the doll. When she suddenly stops and runs back to get the doll, our voiceover resumes: “Oh I’m sorry – I forgot to introduce Susie. Nancy would never forgive me. She’s made Susie an important part of our family. You know how it is when a little girl has no brothers or sisters. Her doll can become pretty important. And sometimes, so help me, I almost think the girl [chuckles] – I mean *the doll* – has a personality of her own.”

Barely 90 seconds into the film we are given several signs of slippage between the identities of the girl and the doll, varying from playful to bizarre: the trompe l'oeil of the opening shot where we think we are being introduced to two little girls instead of a girl and her doll, the fact that both are almost the same size and wearing matching doll dresses, and even the father's odd, chuckling slip when accidentally referring to the doll as his daughter. The culmination of these slippages results in us viewing these small figures as both dolls *and* girls, interchangeable, but definitely not inseparable, as we learn in the following sequence.

With a sudden hard cut, it is suddenly a week later and we rejoin the parents in the family automobile on a country road. The transition between the two sequences is visually striking, cutting from our first-person rollercoaster POV in a dizzying descent to a shot from just

over the shoulder of the father now behind the wheel of the family car. Here, both his smiling face and the hilly landscape seen behind him are seen in sharp focus. A similar shot follows of his wife in the passenger seat, window down, scenic vista rolling by behind it in real time. As is common in these driving education films, the sequence is shot in a actual car on actual roads, providing the viewer of this film a rare taste of automobility on screen sans rear-projection. In voiceover we hear how the young couple have been alone and lonesome, with their daughter at grandma's for over a week now, adding that "at least they had Susie to keep them company." Now we get a shot of the life-sized doll sitting in the back seat (unseatbelted), as the voiceover describes how there just wasn't room in the plane for the doll, so it is now sitting in the back seat of the car. "Then, less than a half hour out of town—" the narrator begins – and we see the car approaching suddenly swerve into their lane, driving towards us head on. "Jim, watch out," the woman warns – in our first and only actual line spoken by one of the actors in the film.

With this, the film shifts into a highly stylized, and obviously staged version of a crash, offering a low-budget version of what an automobile accident looked like in Hollywood narrative cinema at the time: Close on the wheel being jerked. Close on the bumper almost running over camera. Then, a series of ultra-quick cuts: from one handheld shot to another inside the vehicle, the tree we are heading toward, a tire screeching, broken glass in extreme close up, then the doll flying. (The series of quick cuts is accentuated by a shift in the film's soundtrack of tense orchestral score and dramatic sound effects of tires screeching on the asphalt, followed by the sounds of shattering glass and multiple impacts.) The brief sequence ends with a wider shot from behind the car, up against a tree, hood open, smoke coming from the engine, then we see our actors framed behind the now broken windshield. Our driver/narrator's voiceover assures us they were both wearing seatbelts, but Susie was not. Then we get a shot of the doll, now on the floor at the wife's feet, neck twisted back in a way no human could have survived, as our narrator makes the connection: "Then we discovered something that gave us both a shock – what if this had been Nancy??"

Later, at the doctor's office, the voiceover suddenly shifts to the point of view of the doctor, summarizing his consultation of the parents, how things would have been "disastrously different" if they hadn't been wearing their safety belts. We find out that the doctor too works with dolls who had survived car collisions – as a medical consultant for the Institute for Transportation and Transit Engineering (ITTE) at UCLA. There, he explains, his job is examining the dolls that represent children and the dummies that represent adults. The doctor puts what appears to be an X-Ray on the wall-mounted light box – but when the film cuts to a close up of it we see it is actually a photograph of two test cars crashing into each other. There is a quick cut to an even closer shot of the crash, but now the cars are in motion, colliding in slow motion. As the cars glide by the camera majestically, we see the rear door on the driver's side is missing, revealing a little girl doll in the back seat with her arms up as it passes. The film cuts to a wider POV on the collision, again shown in slow motion; as the cars slide towards the camera, the passenger door flips open, as if to welcome us inside. The final shot in the crash sequence is from a safer distance, looking down on the conclusion of the crash, suddenly shifted into real time for its dramatic and violent finish. After the cars have come to a stop, a hand-held camera rushes towards the windshield of the car to reveal two anthropometric dummies in the front seat, and a doll in the back seat, our surrogates for the family we spent the first half of the film with. The dramatic camera move and music accentuates the fact these are not humans, so the reveal plays a bit like a horror film, revealing the monsters that have replaced the American family. Horror turns to science fiction in the following shot as we see an ITTE engineer first put a screwdriver to the back of a dummy's head, then pull off panel that comprises the back of its head to remove the small camera that was inside.

This singular revelation is perhaps the most literal alignment of automobility, cinema & the crash. It is, in essence, an update on Dziga Vertov's 1923 manifesto applied to the world of automobility: "I am kino-eye, I am mechanical eye. I, a machine, show you the world as only I

can see it.”<sup>390</sup> This is automobility’s kino-eye; simultaneously the eye that stands in for our human bodies, and the I-machine, aligning us with both the cinema and the automobile. Providing a first-person perspective of a crash is only part of its purpose. Beyond that, it both explodes time and controls time. In short, it does exactly as Vertov would have wanted it to: “Kino-eye is the documentary cinematic decoding of both the visible world and that which is invisible to the naked eye. Kino-eye means the conquest of time (the visual linkage of phenomena separated in time). Kino-eye is the possibility of seeing life processes in any temporal order or at any speed inaccessible to the human eye.”<sup>391</sup> Here is the truth of automobility in 1962, informed by the innovations of Hugh DeHaven, John Paul Stapp and Derwyn Severy. That the crash is unavoidable. That, without a seat belt, the second impact is unavoidable. That none of us are exempt from either the visible world of the first collision or the invisible world of the inevitable second one. Only this alignment of the Kino-eye, the cinema-I, can reveal these truths. And only through these truths lie the otherwise unseen path to safety.

With a cut we are behind the car looking in through the broken back window, past a panel of plugs with wires jutting up inside the back window, where a man with a screwdriver works on the now-exposed back half of the dummy’s head. Our narrator informs us that “Strategically placed cameras covered everything that happened during impact,” as we get a behind-the-scenes revelation of the multiplicity of cameras used to film the collision – in the back window of the car, overhead, in several locations beside the test track, and the one we saw removed from the head of the dummy in the driver’s seat. Now we understand the shift in narration, from the personal, emotionally invested POV of a father to the expert testimonial that only a voice of science can provide in the form of the doctor’s voice. This is the voice that will guide us through most of the rest of the film. But as we soon learn, even the authoritative view of science is not shut off from feeling, as our narrator describes: “We were especially interested in what happened to children –

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<sup>390</sup> Dziga Vertov, *Kino-Eye: The Writings of Dziga Vertov*, Ed. Annette Michelson, Trans. Kevin O’ Brien (Berkeley: University of California Press, 1984), 88.

<sup>391</sup> Dziga Vertov, *Kino-Eye: The Writings of Dziga Vertov*, 88.

with and without belts – because this subject had not been explored. But even though they were only dolls, and even though these were scientific experiments, we couldn't avoid a feeling of tension and a sense of impending tragedy.”

What follows on-screen is a series of spectacular crashes captured from multiple cameras from various vantage points in both slow motion and full speed, offering viewers a multi-camera, multi-speed montage five years before *Bonnie & Clyde* (Arthur Penn, 1967), albeit a bloodless one. Many of these shots are captured from POVs that were utterly unprecedented in narrative cinema in 1962, thanks to a combination of innovative new camera mounts and the use of high-speed film. The sequence opens with a dramatic slow motion shot from a new vantage point – from the side of the car, fairly close to the ground. We can just see part of the rear panel and rear wheel blurrily on the left side of frame pulling away from the tower – suddenly the approaching car enters the frame and crashes into the car, clearly just avoiding the camera. This vantage point is repeated later, only from the POV of the car that is about to spear the driver's side of the second car between the front and back doors. On impact we cut to a dramatic new angle – recalling the iris in/out shots of silent cinema, so our field of vision is now confined to a circle, with the corners blacked out, from the back seat looking forward as the crash happens in slow motion. Shot with an early fisheye lens, it will recall the point of view of a modern surveillance camera to contemporary viewers. Even in slow motion we see absolute mayhem in the nest as the surrogate passengers are tossed about and metal bits of the car are upended, thrown up, and seem to float in the air, with the doll – who thrown around most violently of all.

With a cut we are suddenly very literally inside the dummy's head, now seeing from the vantage point of the camera, behind the wheel, as we move in slow motion – right into a car that seems even in slow motion to magically appear in front of us suddenly as we collide into the driver's side door. The Traveler-Spectator experiences the second collision as the camera collides with the steering wheel and dash. As glass and metal fly past us we barely notice the cut

to a camera on the front of the car showing the headlights explode in a spray of glass. The shot that follows is one from the side of the track, but fairly close on the point of impact. This time we see the front end of one car crumple into the other; again, glass is flying, as the cars glide through the frame. As it passes from right to left, we see the little girl doll diving from the back seat into the front – recalling a diver from the 1936 Olympics captured by Leni Riefenstahl’s slow motion magic in *Olympia* (1938). The slow motion dive reveals a second girl doll behind the passenger seat that slowly turns to stare accusingly directly at the camera. Now we cut to our overhead shot of the car slowly spinning through the frame against the backdrop of the geometric shape on the blacktop. Through the cut away in the roof we see the doll again diving from the back seat into the front. Again we see the crash – shot from low level eye level with the asphalt – taking up bottom 2/3 of screen. After the cars collide, something breaks off one car and shoots directly into the camera, sending both spinning dramatically across the pavement. Violent and visceral, it’s no surprise that Hollywood filmmakers would want to reprise the shot...over and over and over for decades afterwards.

The editing here, too, is virtuoso, stitching together this action sequence from multiple cameras, portraying it in different speeds, alternately speeding up and slowing down the action, cutting on action, expanding moments of violence and stretching out time – all long before this form of representation would become the norm in narrative cinema. Here, the spectacle of slow motion and heretofore unseen POVs captured by the new camera mounts provide the signs of realism; a polar opposite to films like *Signal 30* and *Highway of Agony*, where, as Brottman describes, “Poor film quality is offered as an index of truth.”<sup>392</sup> In those films, the spectacle that speaks to truth is the human body itself, seen in poses no living human could sustain, or even more viscerally, ripped open and torn apart, a fatal confusion of inside turned out.

Unlike those films, *Safety Belt for Susie* also offers its truth through repetition. As in the laboratory the cinematic crash experiment must be performed repeatedly, and those sequences

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<sup>392</sup> Mikita Brottman, “Signal 30,” 233.

must be viewed repeatedly from different angles and speeds to reveal the facts unseeable by the human eye. It is exactly as Walter Benjamin described two decades earlier: “Slow motion not only reveals familiar aspects of movement, but discloses quite unknown aspects within them [...] It is another nature which speaks to the camera as compared to the eye. ‘Other’ above all in the sense that a space informed by human consciousness gives way to a space informed by the unconscious.”<sup>393</sup> The multi-camera/multi-speed portrayal of crashes in the ITTE films speak to the simultaneity of many events organized around the point of impact. Recording the accident from multiple cameras assures the Traveler-Spectator that the truth of the event could be corroborated, in effect, by multiple witnesses – all unquestionably reliable in their powers of observation, reproducing the event in both time and space. This was the same year that the slow motion replay had been used on television for the first time, in a televised boxing match between Benny Paret and Emile Griffith.<sup>394</sup> A year later, the instant slow motion replay reached an even larger audience in this country with the repeated showing of Lee Harvey Oswald’s murder in slow motion on NBC stretching on for hours in 1963. As Amy Rust describes in her book, *Passionate Detachments: Technologies of Vision and Violence in American Cinema 1967-74*, the repeated slow motion replays of the event “helped assure viewers of ‘what really happened’ by supplying them with what may have been missed during the initial broadcast.”<sup>395</sup>

In each of these examples the spectacle is the slowed down act of violence inflicted on a human body, punctured by bullets, pummeled by fists, or subjected to the unpredictable forces of a car crash. But in *Safety Belt for Susie*, *Safety Through Seat Belts* and the other ITTE-produced films<sup>396</sup> we are instead presented with stand-ins for the human body; the scientifically

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<sup>393</sup> Walter Benjamin, “The Work of Art in the Age of Mechanical Reproduction,” 117.

<sup>394</sup> Donald McRae, “The Night Boxer Emile Griffith Answered Gay Taunts with a Deadly Cortege of Punches,” *The Guardian* (September 10, 2015). <https://www.theguardian.com/sport/2015/sep/10/boxer-emile-griffith-gay-taunts-book-extract>. Accessed May 30, 2020.

<sup>395</sup> Amy Rust, *Passionate Detachments: Technologies of Vision and Violence in American Cinema, 1967-74* (Albany, SUNY Press, 2017), 31. To this I would also add that it was very likely a response to the fact that the Zapruder footage of John F. Kennedy’s assassination remained unseen at that point. So the incessant repetition of the assassination of his killer could have been viewed by the network as offering some cathartic relief to the viewer.



produced body doubles of the anthropometric crash test dummy for adults, and dolls for children.<sup>397</sup> This strange imbalance of bodies, which can be read as a curious lack of rigorousness in testing, simultaneously works to accentuate the fragility of these stand-ins for the delicate bodies of living children, activating notions of innocence and the uncanny in the viewer. While the crash test dummies could be read by the viewer as something futuristic, an idealized form of the human body, impervious to the crash, hence the ability to recycle and reuse their bodies, the doll bodies are forms that we all know; their lack of durability and permanence provides an indexicality to the human form, while referencing children not only in scale and fragility, but by the fact that dolls are commonly associated with children as companions. The doctor's voiceover that precedes the slow-motion sequence reinforces the viewer's concern, revealing an emotional side to science that coincides with any parental POV: "[...] Even though they were only dolls, and even though these were scientific experiments, we couldn't avoid a feeling of tension and a sense of impending tragedy."

Following the extended slow-motion crash sequence in *Seat Belt for Susie* the film shifts to a series of still shots – each providing a striking tableaux of a different doll in horrifying contortions in the crashed automobile – legs bent all the way back, caved in foreheads pressed against the dash, heads twisted around 180 degrees, an amputated doll leg on the pavement, and just past that, another doll missing several limbs and an eye, lying face down on shattered glass. Again the doctor solemnly intones: “In many cases when the children were not restrained, our diagnosis of probable injuries showed that they would have been killed. Babies held on laps were thrown completely out of the car.” Now we see shots of the dolls who survived, still strapped in by either seatbelt or harness. Seen in close up for the first time we realize each doll has a piece of tape on her head, where a different name has been written: Fran, Betsy, Carla, Lisa... This detail

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<sup>396</sup> Other films produced by the Institute of Transportation and Traffic Engineering at UCLA include: *Impact* (1957), *Interrupted Morning* (1961), *Broken Glass* (1962), *Fatal Meeting* (1962), *Intersection Collision* (1964), *Red Light Return* (1965), *Safe on Impact* (1965), *The Automobile-Pedestrian Collision* (1966), *Rear-end Collision* (1966), *Broken Bus* (1967) and *Whiplash* (1968).

<sup>397</sup> Curiously, it wasn't until 1979 that a child-sized crash-test dummy was created as part of the Hybrid III program, spawned from a 1973 agreement between the National Highway Traffic Safety Organization and General Motors. See “History of Child Dummies,” *Humanetics ATD*, <https://www.humaneticsatd.com/crash-test-dummies/children>. Accessed May 31, 2020.

betrays the DIY nature of the experiments and the naiveté of early testing, i.e. the fact that the crucial act of identifying the participants in these life and death experiments relies on a piece of tape. At the same time, the simple act of naming each doll inscribes each with the possibility of her own individual narrative, with each doll acting as a double for another real child, either in the world of the film, or relatable to by the spectator. The fact that all of the dolls are gendered as little girls betrays a layer of sexism embedded in the otherwise objective scientific point of view the film is trying to present; the fact could, I suppose, be explained away by the narrative framework of the film – i.e. that it is bookended by sequences involving a family with one daughter and her almost identical twin doll – but more likely, this provides a cultural clue to the strident gender identification of the era, specifically in an adult’s assumption that ‘dolls are for girls.’ It should also be pointed out that these are all dolls cast in white plastic, making another strident assumption that they would be owned by little girls belonging to the normative American families of the 1950s that the film assumes are its audience: white, middle class, suburban and patriarchal. As Siegel summarizes:

The automobile user is understood to be, and is represented as, the father-husband. The film’s mise-en-scène and narrative devices put the father-husband character in the driver’s seat, literally and figuratively. He drives—propels and steers—the machine. He drives himself and his family. He drives the plot and the story, the ‘action.’ And by implication, he drives the economy, the society, the nation. As head of the household, microcosmic and macrocosmic, he is charged with a demanding dual responsibility: father-provider (breadwinner) and father-protector (guardian). He is made responsible for the safety and survival of himself and his family, as well as for the safety and survival of his economy, his society, and his nation.<sup>398</sup>

This relationship to adult bodies was spelled out even more explicitly in *Safety Through Safety Belts*, produced three years earlier. As just the second production of the ITTE in 1959, the film spends a great deal of its time introducing the then-foreign anthropometric bodies of the crash test dummies and relating their connection to our own. The film opens in mid-air, close on an Air Force jet whizzing past the camera, soon joined in formation by five others. What follows is a series of dazzling aerial feats, synchronized, and at high velocities. Planes from each branch

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<sup>398</sup> Greg Siegel, “Technologies of Accident,” 199.

of the military makes an appearance in the minute-long opening sequence – Army, Navy, Air Force – as our omniscient narrator makes his pitch, sounding simultaneously like a recruiter for the Armed Forces and barker at an aerial circus: “How would you like to be flying one of these planes? *Exciting!* DANGEROUS! Looks that way, doesn’t it?” With this, the narrator’s tone shifts to a more solemn tone, and suddenly the camera is in the pilot’s seat, looking out the cockpit at the three jets shooting streams of exhaust behind them. “Actually flying like this has become routine by now. And the men who fly are still professionals who reduce the normal hazards to standardized procedures.” Again we are treated to an array of breathtaking drops and loops all performed perfect synchronization, like a Busby Berkeley number. Our narrator continues: “In maneuvers like these the man and the machine are one. In the air, the pilot feels his job is relatively safe. Everything is under control.” Now the scene shifts to the ground, where we see one of our pilots taxiing in on the runway. Again the tone of our narrator shifts, suddenly solemn: “But when he gets back to Earth, conditions have changed. There are now...new elements of danger.” With this, we get a shot of the airfield where several army planes are parked in the distance; in the foreground we see a white sedan with fins that must stretch nearly a foot in height parked on the runway; woman and her two small children stand next to it. They exchange waves with the pilot as he taxis by. Our narrator introduces him as Lieutenant White, a test pilot and engineer. As with *Safety Belt for Susie*, and the rest of the ITTE films, the film’s ‘star’ is young and white, as is his wife and their two young children; so again, the focus remains on the idealized nuclear white young suburban middle-class family of four (and no need for a surrogate life-sized doll).

The film shifts dramatically here to a minute-long sequence of still photographs of actual accident scenes – increasingly shocking in intensity and gore as it progresses while a dramatic musical score reminiscent of noir of the era plays under the narrator’s voice, shifting to the authoritative vantage point of expert testimony from the field of science: “Contrary to popular belief, death-dealing collisions are not all high-speed accidents. 73% of them occur at moderate

speeds within a 30-mile radius of the victims' homes." This sixty-second sequence, in essence, serves to bridge the two sub-genres of 'driving safety gore film' and 'collision-experiment film,' showing they are not as dissimilar as Siegel's dissertation would have us believe. Every bit as gruesome as *Signal 30*, the still photographs the Traveler-Spectator is exposed to in *Safety Through Safety Belts* are reminiscent of the Weegee photographs that predate these films, and the Warhol paintings in his *Death and Disaster* series that followed. While the images here can be read as strict reportage, the additional layers of melodramatic music and narrative via voice-over transform them to tableaux. Arranged in chronological sequence, they tell the story as a slide show, which would have increased the sense of intimacy to viewers in the late 1950s, as the slide projector was a popular way to view candid photos in the home in that period.

This crucial portion of the film is divided into three distinct sections of equal length. The first section opens with several photos of young people in their mangled cars; a man being pulled out of his car; a young couple in the caved in front seat, the boy/driver grimacing in pain, teeth bared, the woman slumped over in the passenger side, apparently dead; a man half in/half out of his car, torso on the ground, legs still in the car, forecasting both Warhol's appropriated crash images (1963-67) and the crash sequence that opens Haskell Wexler's *Medium Cool* (1968)<sup>399</sup>. Police officers appear in many of the photos, helping the injured out of their vehicles, or pulling the dead out. Shown working side-by-side with paramedics and doctors, they are paralleled as necessary components of accident-response, and benevolent, concerned, human. The second section of the sequence turns to narrative, sketching out a series of life and death stories. "A young mother and two children died in this one," the narrator intones solemnly as we see a photo of what an accident scene of two cars with negligible damage – a 4-door sedan with its front end bashed in, the rear-passenger door on the driver side dented, where the second car collided with it; this, a 4-door wood paneled station wagon, also with a caved-in front end. In the bottom left corner of the photo, a police officer is leaning down towards a body,

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<sup>399</sup> This film will be discussed in detail in the next chapter.

barely in frame. The second and third stills are difficult to read, making them perhaps the truest to the violence and senses-scattering intensity of the crash. The impression is visceral. Crushed metal, barely recognizable; its rough surface could just as well be blacktop with bits of twisted metal jutting up. The most readable parts of the images are the police officer looking down at something in the rubble (in the second photo); followed by a shot of him in profile, on top of the rubble, as a rescue squad worker in a white coat leans down to where a woman's head is jutting up; possibly decapitated. Here, we hear the narrator describe the scene: *"They were on their way to nursery school when their car was rammed at an intersection."* The fourth photo is more even more intense: a baby's head in the center of frame an EMT worker leans in to put a mask of some kind over its mouth, the arm and hand of a police officer stretches into frame, appearing to pinch the infant's cheek. The fifth photo starts as a medium shot of a police officer looking down – but with a motion control move the camera descends to a close up of the infant he is giving oxygen, bleeding from a gash in his forehead. Here, as the narrator announces the death sentence for the car's passengers, *"The mother and her 3-year old son were crushed in the impact,"* the motion control move happens on the word "crushed," with the camera move descending on the infant, effectively replicating the action of the word, 'crushing' in on the poor infant all over again. After this we get our sixth and penultimate photo in the sequence during a dramatic moment of silence: a shot of a white-haired priest leaning down to deliver last rites. The seventh and final shot in this sequence within the sequence is the most emotional – a member of the rescue squad walks toward the camera carrying the limp body of the young dead boy, bleeding from his head. The look on the man's face says he's somewhere else; perhaps trying to keep a distance from the act he is performing, from the young corpse he is carrying, as the narrator pronounces: *"The five-year old died in the hands of the rescue squad."* In just these seven photographs and five sentences of voiceover the life and death story of this family is spelled out in its most primal and essential details.

The sequence of grisly stills cuts straight from a disturbing photo of two police officers lowering the bleeding body of a young girl onto a stretcher as a crowd of several others watch – to a wide shot of Royce Hall on the UCLA campus, where students casually stroll by on a clear day at 24 frames per second. The voiceover smooths over the otherwise jarring transition: “This senseless waste of human life – such deadly violence ensuing from what appeared to be minor collisions – led research groups such as the Institute of Transportation and Traffic Engineering at the University of California to conduct a series of ‘*auto crash tests*.’” You can literally hear the quotation marks around this last phrase, “auto crash tests,” indicating that this was still an unfamiliar phrase not known by much of the general public at that time. With another hard cut we are suddenly we are on the testing grounds of the ITTE where scientists are attaching wires and coils to an automobile, preparing a sedan attached to a long metal track, and setting up cameras at various vantage points.<sup>400</sup> “This is a unique kind of research in that an experimental collision is by nature a one-shot operation requiring a great deal of preparation. Only a few seconds duration. And many months of detailed analysis to evaluate the findings,” our narrator duly informs us.

Now we see our first staged car crash play out in real time – starting with a shot of a stern-lipped man in a white flight suit and mirrored aviator sunglasses waving a flag back and forth in the air in front of him. The shot stands out from the rest of the film as an insert shot that feels staged; a conceit that colludes with Hollywood and the most prominent genre for automobility at that point: the racing picture. The second shot starts as though it were a race: one car leading the other, racing across the frame. The third shot is very weird, completely unfamiliar; the introduction to our first POV of scientific cinema – something like a fish eye lens crossed with an iris shot from silent cinema so that the (distorted) action is contained in a circular frame, with the corners now black. In it, we are looking down on the road below as two cars approach each other at a 90-degree angle, starting as tiny distortions at the edge of the

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<sup>400</sup> Although it is never explicitly announced where the tests took place, most of the crash test footage in this period was shot at an abandoned air strip at the U.S. Naval Station in Long Beach, according to the UCLA Samueli School of Engineering website. <http://www.seas.ucla.edu/seas/pubinfo/fifty/50th5.html>. Accessed June 1, 2020.

frame, and only clearly becoming cars as they quickly shoot towards each other. Just before the collision there is a cut to our third shot – now on ground level – as the two cars collide violently, then careen off in different directions; the car that t-boned the other, turning over on its side; the car that was hit turning over completely, door flying open, as it ultimately ends up back on its wheels. On the soundtrack we hear the sound of the violent crash, accompanied by a flourish of melodramatic music building up the drama of the impressive impact. Now we go into flashback to a time before the crash, and for the first time we meet its passengers: anthropometric dummies. For many audiences in 1959, this would have been their *first* introduction to the unfamiliar body of the crash test dummy. As we see a series of shots showing the dummies being bent and posed like oversize dolls, our narrator provides the introductory lecture: “The experimental vehicles and their passengers *have* to be expendable. Collisions are inherently dangerous, and human subjects are not easily located. Even if they were, however, there are definite advantages to using a well-engineered mechanical substitute.”

The next image we see in the film is something that was probably quite uncanny at the time – likely the cinema’s first ever close up of a crash test dummy as one of the scientists moves its head back and forth, up and down roughly. This dummy is more unsettling than the first – possibly because someone has drawn small white pupils in its blackened eyes. It has nostrils too, and a mouth, painted in black; with the black and white cubes for film registration on its face, like Stapp did in his rocket sled runs. It is likely that the filmmakers felt the necessity of showing the close-up to establish the identification with this foreign, unhuman body for the viewer; to meet the body that is to stand in for their own, literally face to face. The time-space associated with the body of the crash test dummy is at its most complex here, seen in flashback, before the first on-screen crash has occurred; a body literally stands in for that of the Traveler-Spectator, in a crash-event that ultimately is performed several times, anticipating the future crashes the viewer might be in. These “pre-enactments,” as Karen Beckman terms them, are scientific tests of disasters-to-come that

seem inextricably bound to a temporality of futurity, the crash-test films and stills that document and measure the movement of the technologically thrown body bring the insistently deferred temporality of the test into contact with the complex qualities of past- and present-ness that we associate with photographically based media. As if these contradictions are not already complex enough in the way they document 'past performances' of accidents to come, our temporal sense of these strange technical films is thrown into further crisis by some of the actors who play the role of driver [...the] crash test dummy.<sup>401</sup>

In this early introduction of the crash test dummy it is presented as both poseable life-size doll and uncanny other. Its closest cinematic precedents would include the *Maschinenmensch* in *Metropolis* (Fritz Lang, 1927), The Monster in *Frankenstein* (James Whale, 1931) and Gort from *The Day the Earth Stood Still* (Robert Wise, 1951). Lacking the agency of such fictional characters, the crash test dummy is the technological body that humanity safely controls. At the same time, this surrogate body is a stand-in for our own idealized future bodies as predicted by these crash-test films: unharmable, capable of withstanding crash after crash if need be. This initial sci-fi connection is punctuated by the profile shot of our dummy's head as a set of human hands with a screwdriver tightens the plate on the back of the its head. "Anthropometric dummies are the answer," our narrator continues, as we see our dummy being seatbelted into the backseat of the car. "For they simulate the behavior of our human counterparts under the forces of collision." As we watch our entire family of dummies being fitted into the cars we saw earlier, we see the rest are not being belted in. Reminiscent of a flashback in noir, we already know the fate of these dummies in the sense of their narrative trajectory, even if we don't yet know what will happen to their bodies. That mystery will be sketched in soon enough via the POV of scientific cinema's arguably greatest innovation: slow motion. Meanwhile, the soundtrack echoes Bernard Hermann's score to *Vertigo* (Alfred Hitchcock, 1958) almost verbatim, released just a year earlier, cueing both the film's link to narrative, and the suspense of the viewer.

Now we see the crash play out for a second time. This time the event is transformed. Seen in slow motion, every movement stretches out in time and space. The phrase used most

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<sup>401</sup> Karen Beckman, *Crash: Cinema and the Politics of Speed and Stasis*, 128.



often in cinema studies to describe these events – “balletic” – is absolutely true here, almost a decade before *Bonnie and Clyde*, when the phrase “balletic violence” is first coined. “An actual crash lasts approximately four seconds. Each fraction of which contains dozens of events of life and death significance,” our narrator points out, forecasting the sequence that follows. The crash repeats. Seen from overhead in slow motion, the cars collide, sending each other swinging into graceful spins. Although the vantage point and subsequent dazzling spectacle are pure Busby Berkeley, the voiceover remains clinical: “The driver of the struck car is crushed against the steering post with a force of 700 pounds – and the door frame with a force of 1600 pounds.” The crash repeats. This time, seen from ground level as the car that is hit spins towards the camera, the body of the driver flies out of the now open door. Again, our narrator remains clinical, giving us the play by play objectively, like a sports announcer: “Split seconds later the violent spin-forces of the collision wrench the other driver from behind the wheel. The fatal plunge of the unrestrained driver starts as he is ejected through the crash-sprung door and then scraped along the asphalt.”

The sequence culminates in our most stylized and beautifully orchestrated slow motion sequence – providing a very clear blueprint of what was to come over a decade later in narrative cinema. Again we look down from an overhead shot as cars begin to collide. Suddenly we are inside the car that is spinning, shot from a camera mounted in the back window of our car, watching as the passengers and their attached cables careen to the right. Again we look down from our overhead shot as the passenger door opens majestically and one dummy glides out. The penultimate shot in the sequence is the most dramatic of all, shot from just behind the dummy in the driver’s seat so we see the steering wheel as the car is struck, lifting the dummy into the air and floating past the camera. We continue to look out the front windscreen as the car slowly turns over – at first, the sensation is as if the horizon itself is turning over – until we are suddenly face-to-face with the pavement. Then the frame of the windscreen collapses, spraying our POV with glinting shards of glass. Suddenly, the driver’s body bounds back into frame, the

back of his white flight suit effectively functioning as a fade up to white here. The last shot, possibly staged, is a close up of the spinning tire on the upside down car; then the camera pans to the crushed cabin of the car, overturned on the concrete. This stunning, and at the time, truly groundbreaking cinematic spectacle is again scientifically grounded in voiceover, sharing with the American public, likely for the first time, the revelations of Hugh DeHaven and Indiana state policeman Elmer Paul (although they do not get name-checked here): “Throughout the various experiments, one fact was clear: in any accident, there are really *two* collisions. One, between the vehicles involved, and another, often more serious, between the occupants and the interior of their own vehicle.”

What follows are a series of still photos and static shots of our dummies framed by the twisted metal of vehicles; both the framing of the images and the poses of the bodies are virtual repeats of some of the still images we saw of dead and injured human bodies in the earlier sequence of still images. This doubling in imagery is as crucial in establishing the doubling of our own bodies that the crash test dummies perform. The accompanying voiceover serves to highlight the weird disjuncture of past, present and future, what happened and could happen to these artificial bodies that simultaneously serve as stand-ins for our own, describing the injuries as if these surrogates were human:

The driver suffered a violent beating within the car before it stopped moving, his chest was crushed against the steering column with a force of over half a ton, after which he was thrown to the passenger side where he crushed his head against the window frame. When the other car turned over, the driver was thrown against the roof, where the ragged metal carved away a portion of his face. Any of the blows he suffered could have been fatal to a human being. The rear passenger, restrained by a safety belt, sustained only minor contusions and abrasions.<sup>402</sup>

After hearing a series of expert testimonials on the increase in safety and chances for survival in crashes when using seatbelts from the American Medical Organization, National Safety Council, and the California Highway Patrol (seeing their branded insignias as they speak), the film shifts dramatically to a body the American public of 1959 would have recognized: the

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<sup>402</sup> This quote, like the ones that precede it that are more clearly indicated in the text, originate from the driver's education film, *Safety Through Seat Belts* (1959).

crash-tested and resilient body of Colonel John Paul Stapp, as he is seatbelted into his latest rocket sled, the *Sonic Wind*. “People keep saying that speed kills. U.S. Air Force tests have proved that it isn’t the speed; it’s the change in speed that can kill you.” With this cue, the rockets fire with a loud blast, sending the sled speeding off...then coming to a dramatic spraying halt. Now we see a close-up of Stapp being unbuckled from his seat, bruised, beat up, but alive. Again, our expert narrator reminds us: “Properly restrained, the human body can withstand enormous stresses.” Once again, in *Safety Through Safety Belts*, Stapp’s body is presented to the public as a literal body of evidence for the survival of strain when strapped in.

The film concludes by looping back to our pilot we met in the opening sequence, now driving on the open road, and now seatbelted of course. Our last image is shot from his POV through the front windscreen as we speed down the road, credits rolling over it. It could just as easily be a phantom ride used for a rear-projection screen in a narrative film of its time. Of course this film, and the ITTE films that followed would soon set the new standard in the representation of automobility on screen, eliminating the use of rear-screen projection altogether. As Greg Siegel succinctly sums up in his dissertation:

Crash-testing brought the medical moving image into a new context and made it serve a new master. The imperative was still to arrest and analyze bodily movement, to seize and slice it into ordered and orderly segments of time and space. But the nature of the bodies, of the movement, and of the circumstances had all changed. The human bodies were no longer essentially physiological bodies [...] and their movements were no longer seen as expressions of ‘life.’ Instead, they were hopelessly physical bodies, and their movements were seen as the imposition of a kind of lifelessness – the kind of lifelessness that comes in the crash’s split second. In that split second, the human body is wholly at the mercy of forces that are both exterior and superior to it. It is inert and impotent, just like the non-agential anthropometric dummy that represents it. (This is precisely why the dummy is such an eerily appropriate surrogate for the crash victim.) It is a piece of meat trapped in an imploding machine.”<sup>403</sup>

Recognized recently as a trend within the blockbuster<sup>404</sup>, the implosion remains a central image in the crash sequence, especially within the collision-experiment films which are centered ultimately on the safety of the surrogate bodies contained within the nest of the interior. If

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<sup>403</sup> Greg Siegel, “Technologies of Accident,” 164.

<sup>404</sup> See Pansy Duncan, “The Cinematic Life of the Implosion,” *Film Quarterly* Vol. 68, No. 2 (Winter 2014): 37-47.

“modernity entails a process of abrupt, accelerating change, and the explosion is, almost by definition, sudden, violent, and transformative,” as Pansy Duncan describes<sup>405</sup>, then this early emphasis on the *implosion* of the nest in the car crash signals a collapse of modernity’s outward movement. Specifically, this is sign of weakness in one of capitalism’s key symbols of modernity: the automobile. What Duncan describes in terms of the implosion in contemporary Hollywood blockbusters in the 21<sup>st</sup> century was already forecasted in the late 1950s in the implosion’s prevalence in driving safety films: “By contrast, the implosion evokes only decay, ruination, and failure. In each of these respects, the implosion seems to point to a medium that is less a function of modernity’s ceaselessly expanding ocular regime than a deteriorating historical enterprise.”<sup>406</sup> Moving the camera inside the car with our surrogate selves in the ‘collision-experiment’ film is to put the camera at risk with the rest of the nest’s occupants – literally on eye level. Read in this way, the stakes of these crash experiments are raised to the level of saving the cinema, and of modernity itself. The message is clear: the nest *must* be preserved.

### **PAIN INDEX, PLAIN SUFFERING: AUTOMOBILE AUTOPSIES, BLOOD MEASURE**

Driving safety gore films like *Signal 30*, conversely, approach the car crash as an *explosion*. In these, we see the interior of the nest turned out, and often, the inside of the human body exposed through gore and viscera. The occupants of the nest, in this era before seatbelts, often explode out of the nest in a spray of intermingled body and automobile parts. It also marks the private act of travel by automobile – by an individual or couple or family – suddenly turned public; literally, on display for all to see. This aspect can be glimpsed in virtually every scene in *Signal 30* and the driving safety gore films that followed. There is almost always an audience present, a crowd gathered, to watch the real life dramatic performance. Each sequence is a life or death story starring the individual or couple or family being saved or their corpses pried out of the wreckage and pronounced dead by heroic figures of the period: police, priests and EMTs.

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<sup>405</sup> Pansy Duncan, “The Cinematic Life of the Implosion,” 40.

<sup>406</sup> Pansy Duncan, “The Cinematic Life of the Implosion,” 43.

But these on-site spectators are also just as surely drawn by the spectacle of the crash itself, and the inside turned out. As Mikita Brottman describes in her essay on *Signal 30*:

Consider the crowd that gathers at the scene of any accident. People have always been fascinated by the sight of the opened body, the collapse of fleshly boundaries, and the visible evidence of trauma and the wound. And while we might mourn the victims of the car accident and perhaps even identify with them to a certain extent, there's always a sense of vicarious relief—even a thrill—that the crash has happened to somebody else and not to us. This way of thinking is sometimes known as the triumphalism of the survivor.<sup>407</sup>

Seen from the outside, from a distance, or on film, there seems to be a ceremony to it: a ritualistic exchange between spectator and the suffering, but also an exchange among them, the still living, still standing, their eyes trained on the road like they've been taught in the movies. (Well, the driver's education movies anyway.) While the collision-experiment films posit the crash as spectacle – achieved through a combination of innovative car mounts, spectacular slow-motion and multiple camera montage – for driving safety gore films like *Signal 30*, there are multiple converging spectacles: the dramatically crushed or reshaped car bodies, the torn open, damaged or dead human bodies, and spectacular accumulation of activity at the scene of the accident, which centers on these damaged bodies, but includes figures of authority (police, ambulance, priest) and the audience that inevitably gathers around such a scene. These elements may have been present in the making the collision-experiment films, but are invisible in the actual films.<sup>408</sup> The authoritative figures who are present on the scene and seen in these films are the engineers and technicians who ready the crashes and record them on film, the oscilloscope and an array of recording devices. In the films they are usually seen servicing the machines, whether it is the cars, cameras or surrogate bodies of the anthropometric dummies.

Both sub-sub-genres share the conceit of the direct address of the spectator in voiceover; a

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<sup>407</sup> Mikita Brottman, "Signal 30," 240. Here, Brottman is almost paraphrasing Hal Foster's earlier observation regarding the experience of viewing the car crash paintings of Andy Warhol, that make up the bulk of his *Death and Disaster* series: "Here, again, in its guise as witness the mass subject reveals its sadomasochistic aspect, for this subject is often split in relation to disaster: even as he or she may mourn the victims, even identify with them masochistically, he or she may also be thrilled, sadistically, that there *are* victims of whom he or she is *not* one. (There is a triumphalism of the survivor that the trauma of the witness does not cancel out.) Paradoxically, perhaps this sadomasochistic aspect helps the mass subject cohere as a collectivity." [Hal Foster, "Death in America," *October*, Vol. 75 (Winter 1996), 55.] Warhol would have approved, no doubt. Appropriation, after all, needs no citation.

<sup>408</sup> The collision-experiment films were often shot in front of a live audience of expert spectators watching from a safe distance but remain unseen in the films themselves. This may have been inspired by the car crashes staged every year at the Stapp Car Crash Conferences, which began in 1956.

common characteristic in all educational films, whatever their genre. Omniscient, blunt and graphic, these are simultaneously the voices of science and the law, offered in a jumble of tenses, reflecting the complex time-spaces of these films, simultaneously addressing past, present and future.

While the collision-experiment films remain largely objective, speaking as authorities in the fields of science and engineering, driving safety gore films like *Signal 30*, *Mechanized Death*, *Red Asphalt* and *Highway of Agony* are a mix of reportage and moral judgement. This is the element that most film critics and historians seize upon in the scant handful of academic essays that have been written about these films. Film historians David Kerekes and David Slater observe in *Killing for Culture: An Illustrated History of Death Film from Mondo to Snuff*: “The narration was invariably of a sarcastic nature, seeming on occasion to be chiding the victims for being dead.”<sup>409</sup> In the specific case of *Signal 30*, Mikita Brottman describes: “The more dreadful the accident scenes, the more baroque the rhetoric that accompanies them. [...] The rhetoric is grotesquely overblown, often ghoulishly so.”<sup>410</sup> As Greg Siegel adds, “Both gory highway-safety films and collision-experiment films attempted to provoke fear and anxiety in spectators as a means of ‘scaring them straight’ – that is, as a form of negative inculcation, or more strongly, psychological coercion -- and thus can be said to have exhibited a common aim.”<sup>411</sup>

Lacking the shock/scare elements of the driving safety gore films, in the collision-experiment films, the responsibility of delivering the didactic, cautionary message is left almost solely to the voice of the narrator. Typically, this falls to an authoritative male voice, whether it is ascribed to a scientist, engineer, doctor, or father, who translates the on-screen violence to the surrogate bodies we see on screen to what the forces would do to ‘actual human bodies.’

Descriptions of violence are clinical and explicit, spelled out in detail via the voices of science

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<sup>409</sup> David Kerekes and David Slater, *Killing For Culture: An Illustrated History of Death Film from Mondo to Snuff* (London: Creation Books, 1994), 212.

<sup>410</sup> Mikita Brottman, “Signal 30,” 235.

<sup>411</sup> Greg Siegel, “Technologies of Accident,” 169.

and the law.<sup>412</sup> Often they are embedded in the mini-narrative vignettes that accompany the accident footage, using broad strokes to fill us in on who these people are (or were) and what led up to the accident, contributing to some of the time disjuncture in the film, where the audio track is essentially in flashback, racing to catch us up with the spectacle of the post-crash scene we are seeing.

In the driving safety gore films, the voiceover carries the additional responsibility of providing an added layer of expert testimony about the film itself – that the scenes the viewer is watching are authentic, ‘real’ or ‘true.’ This claim is repeated regularly throughout films like *Signal 30*, *Mechanized Death*, *Red Asphalt*, and *Highway of Agony*, occurring every few minutes, almost musical in their regularity (like a chorus), interlaced with the narrative vignettes and morality tales, serving as a sort of punctuation. To the modern viewer, now used to the regular sight of blood and gore on our screens, the insistent claim of being ‘real’ or ‘true’ comes across at times as almost defensive. But to a viewer in the 1950s and 1960s, such a spectacle was literally without precedent, pre-dating both *Bonnie and Clyde* and the new levels of violence that Arthur Penn’s film is usually credited with inspiring, and the television coverage of the real life violence of the Vietnam War which partly inspired it. “Put yourself or one of your loved ones in one of these untouched, unstaged scenes. You could easily be...a Signal 30.” the narrator of *Signal 30* warns. “This is not a dream, not a nightmare, this is *real*. And it’s true,” the narrator of *Mechanized Death* insists multiple times throughout the 25-minute film.

This incessant insistence that these filmmakers are presenting the “truth” can be explained at least in part by the fact that we never actually see any of the crashes take place on screen, only their aftermath. Instead, the damaged or dead bodies of human and automobile are held up as an index of truth, along with the gritty *cinéma vérité* qualities of the *mise-en-scène* and the very real and clearly *not* acted emotions and registration of pain we see on screen. The other element conspicuously almost entirely missing from the footage is, of course, synchronous

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<sup>412</sup> J.G. Ballard replicates this tonal approach throughout his genre-breaking, era-defining novel, *Crash* (1973).

sound. Shot on 16mm, these films are for the most part only documents of the visual register, capturing, effectively, only a portion of the ‘truth’ of the aftermath of a crash. The soundscapes of these films are comprised primarily of the narrator’s voice and dramatic musical soundtrack, pushed high in the mix, just under the voiceover. This was the standard formal approach used in most education films through the early 1960s, as well as the travelogues and newsreels since the advent of sound. But with a film like *Signal 30*, with such a charged visual field, the clear separation of sound and visuals insulates the events in the footage, creating a distance from reality. The disjuncture between the viscerally real images and the overblown, overdramatic obviously scripted voiceover provides a tenuous balance for the viewer of these films, resulting in an almost continuous negotiation with the simultaneous layers of hyperreal versus hyperartifice while watching.

The two earliest driving safety gore films, *Signal 30* (1959) and *Mechanized Death* (1961) feature only brief snippets of location sound. Just past the halfway point of *Signal 30* after a brief fade to black between crash vignettes, the scene fades up on a handheld camera hovering just outside a crash scene where the passenger door hangs open to reveal the bloodied body of a red-headed woman stretched across the front seat and hanging partly out of the door. She twitches occasionally as the camera lingers on her for ten seconds before cutting to a slightly different angle on her, twitching more now, as if trying to say something. The narrator continues his deadpan delivery: “Death sometimes plays an overture of torture. [...] So the cries of the maimed are heard, cries of pain and fear. This woman wept, but cried even more the next day, for then...her husband died of his injuries.” Then a curious thing happens. As two police officers lift her onto a stretcher, the voice of the woman literally interrupts the narrator, drowning him out: “Oh my leg...oh no, my leg, ohhh...my leg.” The overlaying of sounds is jarring, partly because of the inept sound editing, but also because it is the first time that reality is registered on the soundtrack, and the first time the sound and image tracks appear to synchronize and



match up. The soundscape here is radically different, sounding as if it were recorded over a phone, or perhaps a police radio.

Shortly before the end of the film, location sound breaks in again. This time it does not interrupt the narrator, but definitely diverts our attention from him with a hard cut, and no fade up. Now we hear sudden bursts of asynchronous sounds from the scene we are seeing (so we are told); an accident resulting in the deaths of four women and serious injury to three other, two of which are children. “What is the price to be paid for failure to yield right of way, or violating a stop sign?” our narrator asks, obviously not being rhetorical, for we are shown the answer on screen in the form of the bodies of the dead women sprawled out in the grass next to the crash site. The sounds we hear are a cacophonous mix of crowd chatter, cries, groans, screams, sirens and police radio static; no clear words. “Here, the cries of the maimed are heard, cries of suffering and pain,” our narrator describes dryly, trying to make sense of the cacophony for the spectator. As the bodies of the women, living and dead, are transferred to stretchers, we hear a couple of clear sentences from the men moving the bodies. “Gimme a lift with the top, will ya?” “She’s a big girl.” “You want that up a little farther?” “You need any help back here, Paul?” “I could use a lotta help here.” We hear no words of solace, no attempt to calm or comfort. Instead, there are only words exchanged between workers about the challenges of the task at hand, indicating the distance they seem to have from the human bodies they have intimate contact with. For at least one woman, it will be some of the last physical contact with another human she will have, some of the last voices she will hear. “The woman whose cries you hear died a few hours later,” the narrator tells us, connecting the present time of the images we watch of her living body on a stretcher with her near future death pronounced in retrospect from his clinically detached viewpoint. “She was the mother of the driver of the car,” he adds, shifting to the moral high ground. “Her callous defiance of the law led to the death of four people.”

Similarly, the concluding sequence of *Mechanized Death* includes a chilling layer of synchronous sound to the scene of two police officers and nearly half a dozen other men

(assumedly bystanders) slowly work to pull a badly injured man out of his car. The man cries and begs “I can’t stand it. Please. God help me...” over and over, as a woman’s voice tries to calm him down. Up front in the audio mix: our ever-calm narrator pronounces final judgement on the matter: “There are no words to express agony; there are only sounds. Agonized sounds. Remorse, regrets, pleas for another chance. So think before you act. For your family. For all others on our highways. Indeed, for yourself. Take time to think. There is never any need for mechanized death.” These relatively rare excursions into the sound of violence mark these scenes as the most disturbing in each film, precisely because they are the most real. Up until these points when the sound of suffering syncs up with spectacle of bloody bodies on screen, the voice of the narrator keeps us at a certain critical distance. While the damaged bodies of both automobiles and humans always hovers somewhere near pure spectacle, the registration of pain is real. Especially when location sound breaks in and syncs up with the events on screen. Adding this layer that registers as missing for most of the rest of the film, provides sudden assurance that what they are seeing is real, because the voice is what registers pain. Whether it is incommunicable, and can only be evinced in guttural cries or wrenching screams, or the vocabulary narrowed to only a few words repeated over and over, it is the suffering in the human voice that makes the experience of watching these films almost unbearable.

While the collision-experiment films are shot from the POV of science and engineering, and delivered to the viewer with narration that testifies to the experience and authority, which aligns the filmmakers and engineers we see carrying out these experiments as sort of combined mission, the driving safety gore films are shot and delivered from an entirely different set of authorities. While the opening credits to *Signal 30* proclaim The State Highway Patrol – Division of the Ohio Department of Safety *presents* the film, carefully framing the mini-narrative vignettes through the POV of the Ohio Police ‘arriving on the scene,’ the POV that is actually presented is something that, at best, could be described as akin to ethnography, but more often is closer to the prying and exploitative POV of yellow journalism. The camera

pushes, prods, then lingers...focusing on the suffering of individuals...or the bloody spectacle of death, most often, the result of an impossible fusion of human and machine. While the collision-experiment films seek to inspire wonder in the viewer, through their dazzling use of slow-motion and startling new POVs thanks to new car mounts for the camera, the driving safety gore film seeks to shock, disturb, repulse. While closely relatable to other body genres, especially horror and pornography, the driving safety gore film remains unique in its single-minded approach, never wasting more than a few seconds of screen time to set up the next sustained sequence of body horrors. The closest other cinematic viewing experience would likely be the last 25 minutes of *The Texas Chainsaw Massacre* (Tobe Hooper, 1971) or 21<sup>st</sup> century horror franchises associated with torture porn like *Saw* (James Wan, 2004) or *Hostel* (Eli Roth, 2005).<sup>413</sup>

In the collision-experiment film we are presented with a seemingly indestructible body of the crash test dummy, reusable and bloodless, with little to no distinction between interior and exterior. Conversely, in the driving safety gore films we are presented with two kinds of bodies produced by the crash: the body in death and the body in pain. Screen time is roughly split between the two, often shown in alteration, as if in point/counterpoint. When these films were first released they were without precedent. In fictional narrative films, bloody bodies were rarely seen on screen, and most corpses either appeared under sheets in ambulances or morgues, or were shown in fractured glimpses – a pair of legs behind a couch, a limp hand hanging off of a chair, a body hidden and outlined under a sheet. In driving safety gore films like *Signal 30*, *Mechanized Death*, *Red Asphalt*, *Wheels of Tragedy* and *Highway of Agony*, viewers are offered an endless array of bloody, eviscerated bodies of varying ages, races and gender. While we are not privy to the actual crashes – which are presented in stunning slow motion in the collision-experiment films – we are presented with damaged and dead bodies, both human and automobile, as evidence of their occurrence. Blood and gore which register in striking reds

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<sup>413</sup> To date there are nine films in the *Saw* franchise, stretching from 2004-2018. Although predominantly panned by critics, dismissed by many as 'torture porn,' possibly the lowest-of-low in subgenres, *Saw* remains one of the highest-grossing horror film franchises of all time, grossing over \$1 billion dollars.

thanks to the qualities of 16mm film, are the most obvious form of evidence. This form of proof recalls Linda Williams' observations regarding the so called "money shot" in hardcore pornography, presenting "the mechanical 'truth' of bodily pleasure caught in involuntary spasm, the ultimate and uncontrollable—ultimate *because* uncontrollable—confession of sexual pleasure in the climax of orgasm."<sup>414</sup> Although we are denied the 'money shot' of the human body being penetrated by the automobile (an event which J.G. Ballard will later focus on in his 1973 novel, *Crash*, and David Cronenberg will bring to the screen in his 1996 film adaptation), we are often witness to blood coursing from open wounds on the bodies of the crash victims. Although differing from the "frenzy of the visible," Williams discusses in her landmark 1999 book, *Hard Core: Power, Pleasure and the 'Frenzy of the Visible,'* (lifting the phrase from Jean-Louis Comolli's 1980 offering to apparatus theory, "Machines of the Visible") there is a similar frenzy inspired in the viewer of these visceral driving safety gore films. Like other 'body genres,' including horror and pornography, as originally named by Carol Clover, and 'weepies,' which Linda Williams adds to the list, the driver's education gore film presents a nonstop series of spectacles focusing on bodies "caught in the grip of intense sensation or emotion."<sup>415</sup> As Williams describes, "[...] Science and spectacle impel each other according to the principle of maximum visibility. The ability to see and name each stage of process that were previously 'partially unseen' fuels the reformulation of this knowledge as pleasure as knowledge."<sup>416</sup> But unlike any of the other body genres, driving safety gore films were originally created primarily for an audience of both male and female teenagers, featuring bodies of both sexes, cut open, bleeding and out of control and in agony (or dead) – also unlike any of the other body genres, where most often, as Linda Williams explains, "the bodies of women figured on the screen have functioned as the primary *embodiments* of pleasure, fear and pain."<sup>417</sup>

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<sup>414</sup> Linda Williams, *Hard Core: Power, Pleasure and the 'Frenzy of the Visible,'* (Berkeley: University of California Press, 1999), 101.

<sup>415</sup> Linda Williams, "Film Bodies, Gender, Genre and Excess," *Film Quarterly* Vol. 44, No. 4 (Summer, 1991), 4.

<sup>416</sup> Linda Williams, *Hard Core*, 53.

<sup>417</sup> Linda Williams, "Film Bodies, Gender, Genre and Excess," 4.

Of course in the mise-en-scène of the driving safety gore film, all pain is real. Registered visually in blood or the twisted contortions of the living bodies on screen and sonically by the rarely heard cries, these expressions of pain are amplified by long takes, lingering close ups, or multiple angles on the same suffering body, stitched together in sequence to lengthen the duration of their suffering. When we get a chance to hear the location sound of the accidents, we quickly realize these bodies in pain are either beyond language, or barely able to access it. As Elaine Scarry explains in *The Body in Pain: The Making and Unmaking of the World*:

It is the intense pain that destroys a person's self and world, a destruction experienced spatially as either the contraction of the universe down to the immediate vicinity of the body or as the body swelling to fill the entire universe. Intense pain is also language-destroying: as the content of one's world disintegrates, so that which would express and project the self is robbed of its source and its subject.<sup>418</sup>

Although the focus of Scarry's book is largely on pain resulting from torture, she does admit: "Perhaps only in the in the prolonged and searing pain caused by accident or by disease or by the breakdown of the pain pathway itself is there the same brutal senselessness as in torture."<sup>419</sup> While the rescue teams and police officers and bystanders are of course not responsible for inflicting the initial pain of the crash on the accident victims, pain often results as the workers work to free their bodies from the crushed entanglement of the automobile, or simply moving their bodies from where they're found to the stretcher, and then to the ambulance. The sequences involving location sound in both *Signal 30* and *Mechanized Death* let you see and hear the victims blaming their rescuers for their pain as they are lifted out of the automobile, transferred to a stretcher. To examine the power dynamic in these situations it is enlightening to again turn to Scarry's interrogation of the power dynamic involved in torture:

However near the prisoner the torturer stands, the distance between their physical realities is colossal, for the prisoner is in overwhelming physical pain while the torturer is utterly without pain; he is free of any pain originating in his own body; he is also free of the pain originating in the agonized body so near him. [...] Although the distance separating the two is probably the greatest distance that can separate two human beings, it is an invisible distance since the physical

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<sup>418</sup> Elaine Scarry, *The Body in Pain: The Making and Unmaking of the World* (Oxford: Oxford University Press, 1985), 35.

<sup>419</sup> Elaine Scarry, *The Body in Pain*, 35.

realities it lies between are each invisible. The prisoner experiences an annihilating negation so hugely felt throughout his own body that it overflows into the spaces before his eyes and in his ears and mouth; yet one which is unfelt, unsensed by anyone else. The torturer experiences the absence of this annihilating negation. These physical realities, an annihilating negation and an absence of negation, are therefore translated into verbal realities in order to make the invisible distance visible, in order to make what is taking place in terms of pain take place in terms of power, in order to shift what is occurring exclusively in the mode of sentience into the mode of self-extension and world.<sup>420</sup>

In the cinematic world of the driving safety gore film, relief often only comes once these agonizing figures are in the ambulance. Safely tucked away in the nest of another automobile aligned with authority and created specifically for the transportation of damaged and suffering bodies, the body in pain is given its first round of medication, tranquilizers and treatment. If unable to treat the injury, paramedics work to at least treat the pain; at best, stabilizing the body so that it will survive its next journey on the road to the hospital.

The original intent of these films was also something akin to torture; a classroom where doors and windows are closed, blacked out; the focus of these teen audiences trained solely on the screen. There, communication is shut down, silenced. All previous workings of the classroom – as a dialogic conduit of education between teacher(s) and students ceases to exist. The senses are shut down to just two: vision and hearing, as if the rest of the world has gone dark and quiet. All that remains is a solitary channel to violence; learning through violence. Once the film starts there are only two lessons to learn: (1) driving hurts; (2) driving kills. The singular rationale behind this singular form of learning: the idea that showing evidence of such violence and pain to future drivers would somehow ‘scare them straight’ and make them better drivers. The original audience of teenagers had no say in the matter. Possibly, their teachers warned them, or their peers, before the screening, but the assignment was not optional. The lights were doused and the horror show began, anticipating The Ludovico Technique the sociopathic antihero, Alex is subjected to in Anthony Burgess’ novel, *A Clockwork Orange*, published in 1961 (and Stanley Kubrick’s film adaptation in 1971). Perhaps more terrifyingly: this went on for decades.

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<sup>420</sup> Elaine Scarry, *The Body in Pain*, 36.

Revisiting the films (or seeing them for the first time) in a contemporary context, the driving safety gore film still relates to the idea of torture. As in torture, where the response to physical pain conveys to the torturer a “convincing spectacle of power,”<sup>421</sup> so too does the viewing of the driving safety gore films convey to the contemporary spectator a sense of power over what they are viewing. This experience has only been heightened since these films were recontextualized for home viewing, first on VHS, then DVD, and most recently on YouTube. Viewers who *choose* to watch these films are aligning themselves with the POV of the authority, transforming the experience of watching them into something much closer to horror, pornography or even melodrama. The excess of pain, gore and emotion portrayed in these films is still without parallel. The closest viewing experience would probably be the reviled *Faces of Death* series. While the initial impact of the original film upon release was similar to the driving safety gore films, the authenticity of almost half of the footage in the original *Faces of Death* (Josh Alan Schwartz [as Conan LeCilaire], 1978) has now been proven to be fake. So, while the film sought to invoke the same audience response as the driving safety gore films, and did so upon its original release (earning \$35 million in its original theatrical release alone<sup>422</sup>), many of the sequences read as inauthentic to the 21<sup>st</sup> century viewer – unlike the undeniable realities of *Signal 30*, *Mechanized Death*, *Red Asphalt*, *Wheels of Agony* and *Highway of Tragedy*.

Interestingly, one of the sequences that reads as the least authentic in *Faces of Death* is the sequence of a Hollywood stunt crash gone horribly wrong. As our narrator, Dr. Francis B. Gröss (played by actor Michael Carr), relates in his introduction to the sequence (immediately following a very real sequence involving a skydiver falling to his death), “Even in the world of make-believe, the use of transportation vehicles can end in disaster.” He then goes on to

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<sup>421</sup> Elaine Scarry, *The Body in Pain*, 27. This phrase also originates from Scarry’s book. She goes on to explain: “It is not accidental that in the torturers’ idiom the room in which the brutality occurs was called the ‘production room’ in the Philippines, the ‘cinema room’ in South Vietnam, and the ‘blue lit stage’ in Chile: built on these repeated acts of display and having as its purpose the production of a fantastic illusion of power, torture is a grotesque piece of compensatory drama.” (28)

<sup>422</sup> This is the figure reported on the IMDB Pro listing for the film: <https://pro.imdb.com/title/tt0077533/boxoffice>. Other sources put the number at closer to \$40 million.

introduce a stunt gone wrong in a chase sequence from an unnamed action-adventure film.<sup>423</sup> After an establishing shot of the location, and several quick close ups of key members of the crew – director, cinematographer, and script girl – the sequence really begins with a shot of the slate. The tell-tale *clack* of the slate here is a performative gesture, signaling the alignment of both the film being shot and the documentary being shot about its making. But the fact that all the information on the slate – the film’s title, director, cinematographer – is fictionalized cues us in that what the slate is actually doing is announcing that everything that follows is fiction.

The stunt itself plays out in relatively unspectacular slow motion – as a two-door muscle car shoots off the edge of the road landing in a pond less than ten feet below, sending a spray of water into the air, drenching the camera crew. We hear one crew member yell “Jesus Christ, get him out of there!” as the crew scatters. This shot is taken from another camera behind the one ostensibly shooting the scene, and appears at 24 frames per second. The rescue sequence that follows starts with several slow motion shots of crew members running towards the car, then cuts to several more handheld shots at normal speed of the cast reaching the car. While one POV on the accident focuses on the jerky handheld coverage of pulling the dead driver out of the car, another POV focuses on the handheld camera shooting the rescue attempt. The narrator’s voiceover throughout the sequence sound as if it could have been lifted directly from a driving safety gore film (post-Nader):

What was to be a routine stunt...ended in disaster when a safety cable malfunctioned. The driver suffered internal injuries which resulted in his death. In the routine work of a stuntman, the dangers faced daily are like doing a tango with death. These daredevils fall off cliffs, jump from moving cars, and perform any stunt that makes an actor appear fearless. Those who work in this environment have an interesting perception of death. They believe their job is as safe as anyone else’s, just because they are all trained professionals. Unfortunately, it was his equipment and not his expertise that determined this man’s untimely end. An ironic conclusion to this tragedy is that months later when the movie was released, the director decided to include this sequence in the picture. The only change – the character who supposedly drover the car left the vehicle unharmed and continued his escape by foot.

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<sup>423</sup> Although there is no mention of the film’s title in the sequence, it does appear on the film’s slate (*Hell Raisin*), along with the name of the director (“Emile Scott”) and cinematographer (“Dick Seemer”). The fact that neither name nor title appear anywhere on the internet is of course now a glaring hint that the sequence is entirely fictional.



Because of the high degree of realism established by the driving safety gore films in the twenty years preceding the 1978 release of *Faces of Death*, this sequence, by comparison, comes across as possibly the most amateur sequence in the \$450,000 production. Of course viewing it from a 2020 perspective can never reproduce the shock of what seeing it in 1978 (or even 1988) must have been like, due to the normalization of violence on screen and our desensitization to it as a culture. Like the driving safety gore films, *Faces of Death* continues to enjoy a growing audience, with over half a million views on YouTube in the two years since it was posted. Similarly, *Mechanized Death*, remains a particular favorite among 21<sup>st</sup> century viewers, with three-quarters of a million views on YouTube since being posted less than four years ago, while *Signal 30* has almost as many views, adding up the multiple versions (of varying quality) that are available on YouTube. The collision-experiment films have far less views (almost 17K for *Safety Through Safety Belts*, and less than 5K for *Safety Belt for Susie*).

The driving safety gore films are now essentially in their fourth lifespan, starting as classroom films, being shown steadily in many states up through the 1980s when most schools simply threw out their 16mm films, updating to videocassette for the first time. At that point many of these films were released on videotape for the first time, being marketed to an all new audience – alongside mondo and exploitation films in video rental shops and record stores. In the 1990s they were re-released again on DVD to a similar audience, and of course now reside on YouTube for 21<sup>st</sup> century viewers drawn to the darker side of life (and death). What Mikita Brottman pointed out in 2001 remains true in the current online iteration on YouTube – that these films continue to satisfy important social and cultural imperatives. Brottman frames this within a Freudian context, explaining that it fulfills the repetition compulsion.

To sit through a series of violent car crashes, one after another after another, is a way of integrating the trauma into a psychic economy, thereby attaining some level of mastery over it. In other words, repetition of the trauma produces two conflicting attitudes toward death: that which acknowledges it as traumatic and that which denies its power to harm. That is not to say that these graphic images of road accidents ever cease to be shocking, but rather that they end up producing

a generalized feeling of shock that cannot be located precisely in any one single image or accident.<sup>424</sup>

When the driving safety gore films were repackaged, recontextualized and rereleased, starting in the 1980s on VHS, and continuing on through the 90s on DVD and the 2000's on YouTube, they provide a sort of inverted nostalgia — providing a revealing glimpse into the facts of a past that was just as brutal and violent as the present. In that sense, these films are a more revealing index of some of the truths of that era than either mainstream narrative films or the more edgy independent or foreign films of that era. The fact is, the driving safety gore films are still edgy, showing a truth about violence in the world of automobility that you still don't see in the mainstream or underground.

Up until now, these films have continued to be ignored for the most part within academia, and accounts of film history, still somehow submerged in notions of 'low art,' despite the datedness of that concept. When they are addressed, it is typically within the context of educational and/or sponsored films, and have rarely been examined or contextualized in terms of their contribution to film style and aesthetics.<sup>425</sup> The fact is, both sub-genres of the driver's education film present radically different portrayals of automobility. In their direct address of the viewer, whatever the age, we are able to accompany real people (as opposed to actors) in a real automobile (not a prop) traveling to and through real locations (not rear-projection), traveling in real time at real speeds (and not sped up). These driving safety/education films are responsible for taking the crucial step in reproducing the reality of driving on-screen for the first

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<sup>424</sup> Mikita Brottman, "Signal 30," 241.

<sup>425</sup> See: Devin Orgeron, Marsha Orgeron and Dan Streible, Ed., *Learning With the Lights Off: Educational Film in the United States* (New York: Oxford University Press, 2012); Vinzenz Hediger and Patrick Vonderau, Ed., *Films That Work: Industrial Film and the Productivity of Media* (Amsterdam: Amsterdam University Press, 2009); Haidee Wasson, *Everyday Movies: Portable Film Projectors and the Transformation of American Culture: Portability and the Transformation of American Culture* (Oakland: University of California Press, 2021); Haidee Wasson, *Museum Movies: The Museum of Modern Art and the birth of Art Cinema* (Berkeley: University of California Press, 2005); Haidee Wasson and Lee Grieveson, Ed., *Cinema's Military Industrial Complex* (Berkeley: University of California Press, 2018); Charles R. Acland and Haidee Wasson, *Useful Cinema* (Durham, NC: Duke University Press, 2011); Alex Southern, *The Ministry of Education Film Experiment: From Post-War Visual Education to 21<sup>st</sup> Century Literacy* (London: Palgrave Macmillan, 2016); Geoff Alexander, *Academic Films for the Classroom: A History* (Jefferson, NC: McFarland & Company, 2010); Ken Smith, *Mental Hygiene: Classroom Safety Films 1945-1970* (New York: Blast Books, 1999); Anthony Slide, *Before Video: A History of the Non-Theatrical Film* (New York: Greenwood Press, 1992); Elizabeth Ellsworth and Marianne Wheatley, *The Ideology of Images in Educational Media: Hidden Curriculums in the Classroom* (New York: Teachers College Press, 1992); Larry Cuban, *Teachers and Teaching: The Classroom Use of Technology since 1920* (New York: Teachers College, 1986).

time – long before *Grand Prix* (John Frankenheimer, 1965) or *Bullitt* (Peter Yates, 1968) or any of the other great road movies of the late 1960s that are typically attributed for this innovation. Driver's education films were the true second generation of inheritors of the cinematic innovations introduced by crash test pioneers Stapp, Severy and DeHaven. What has been curiously overlooked within academia up until now is the crucial role these films played in establishing an all new aesthetic of both automobility and crashes in virtually all of narrative cinema that followed.

**CHAPTER 4:**  
**DON'T CALL IT A ROAD MOVIE;**  
**CHRONOS, CHAOS AND THE CAR: A NEW IMAGINATION OF DISASTER**

*My feeling has always been that the racing world is no less creative in expression than film itself. It's only an oddity because it's a bloodsport.*

-- Steve McQueen<sup>426</sup>

*I've always thought that the most fitting way for an American man to die is in a brutal accident on the freeway. Because that way he will be giving up in the ghost in a rare moment of freedom.*

-- Frank Tashlin<sup>427</sup>

Starting in 1965, the driver was no longer to blame. At least not as a rule. After decades of placing the responsibility for safety and the blame for virtually every crash in the hands of the driver, that responsibility had shifted to automobile manufacturers. The crash was unavoidable. But the second impact could be guarded against. As long as the nest was safe, its inhabitants were too. DeHaven had proven it. Stapp had proven it. Severy had proven it. And all, *on film*. But while these three men had done the groundwork it was only with the publication of Ralph Nader's bestselling book, *Unsafe at Any Speed*, and the subsequent furor that surrounded its publication in 1965 that there was finally a rousing public concern for automobile safety. This groundswell of concern quickly reached international proportions signaling a cultural shift, and introduced a new paradigm of auto safety. Now cars would be designed with the worst case scenario in mind: the crash. For the first time in history, safety sold. The cinema soon responded to reflect the shift, introducing a radically reconfigured vision of automobility on screen, embracing the new car mounts, and eventually the use of slow motion which the driving education films had introduced a decade earlier. In this chapter I will examine this transformation in automobility that occurs on screen and on the streets for the Traveler-Spectator starting with the almost literal overnight shift in attitude towards the car crash. As we will see, the most striking transformation of automobility in the cinema occurs in the new genre of road movies, which never would have existed without the work of Ralph Nader, or the driver's safety films that preceded it.

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<sup>426</sup> From a 1980 telephone interview with Steve McQueen, done shortly before his death, featured in the 2015 behind-the-scenes documentary, *Steve McQueen: The Man and Le Mans* (Gabriel Clarke and John McKenna, 2015).

<sup>427</sup> From an interview Frank Tashlin did with Robert Benayoun in 1964. <http://www.pseudopodium.org/ht-20080412.html>. Accessed December 28, 2020.

## **SAFETY IS NO ACCIDENT: AN INDEPENDENT AUTHORITY ON IMPACT**

The fact that automobile manufacturers had the detailed reports of DeHaven, Stapp and Severy for over a decade but had done very little to implement life-saving safety devices fueled Ralph Nader's vitriolic campaign against them. To Nader, having this information and ignoring it amounted to nothing less than mass-murder. But automobile manufacturers were convinced that safety did not sell. And with no government regulation, there was no one and no way to make them do anything. Until the publication of Nader's book, that is. If DeHaven was the pioneer, then Nader was the populist, and an effective one-man PR campaign to bring DeHaven's discoveries to a worldwide audience. While DeHaven is responsible for changing Nader's mind on how he thought about automobile safety, it is Nader who is responsible for changing the minds of the rest of the world.

Like DeHaven and Stapp, Nader's investment in auto safety can be directly tied to early events in the formative period of his life. In Nader's case, it was a collection of events experienced as a frequent hitchhiker, including seeing multiple automobile accidents firsthand. One accident in particular left a particular mark on Nader, recounted in at least two of his biographies, involved a young girl decapitated by the door to the glove compartment which had sprung open during the crash.<sup>428</sup> Nader was first on the scene; the first witness to see the terminal carnage that could be caused by something as small as a malfunctioning latch. It is tempting to think of this as Nader's personal Primal Crash – the one that sparked the awakening in him that led to a lifetime of championing auto safety just as similar crashes sparked the careers of Hugh DeHaven, John Paul Stapp and driving safety gore film producer Richard Wayman – especially as Nader himself cited the scene during a number of interviews when

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<sup>428</sup> Nancy Bowen, *Ralph Nader: Man with a Mission* (Brookfield, CT: Twenty-First Century Books, 2002), 32, and Justin Martin, *Nader: Crusader, Spoiler, Icon* (Cambridge, MA: Perseus Publishing, 2002), 29-30. Also see two of the early (and best) biographies on Nader: Charles McCarry, *Citizen Nader* (New York: Saturday Review Press, 1972) and Robert F. Buckhorn, *Nader: The People's Lawyer* (Eaglewood Cliffs, NJ: Prentice-Hall, 1972).

questioned regarding his motivation for auto safety.<sup>429</sup> However, it is more likely just one particularly violent element in a chain of events in this time period that spurred Nader's actions. More crucial here is the bigger picture, the process of education that Nader, the autodidact, acquired over a period of years of hitchhiking -- "a kind of survey course on auto accidents," as Justin Martin describes in his book, *Nader: Crusader, Spoiler, Icon*.<sup>430</sup>

During his second year as a Harvard law student, Nader got rid of his 1949 Studebaker for a simple enough reason: he was tired of its endless upkeep. (A decision that would later boggle the minds of GM executives during the course of their investigations and subsequent persecution of Nader in the late 1960s.) In the mid-1950s, hitchhiking was still a cheap, easy and relatively safe option for travelers, and one that had become increasingly 'cool,' among counter-cultures and college students, after the publication of Jack Kerouac's generation-defining novel, *On The Road*, in 1957. Hitchhiking required a very different sense of auto safety. The first level of safety that a hitcher assumed, and possibly took for granted was that of safety from the driver and/or other passengers within the vehicle that picked you up. This issue was the proverbial two-way street, with drivers of these cars needing to make the same assumption (a decision often based purely on appearance and presentation).<sup>431</sup> The idea of letting a stranger into the precious nest that the interior of our cars provide is almost unthinkable now, and even then, there was always an element of danger present. The hitchhiker, as a new passenger, like everyone else in the car, was suddenly at the mercy of the driver and the car itself. As Nader himself describes, you were now potentially at least partly responsible for the safety of the car's passengers as well, keeping drivers awake, keeping the proverbial eye out, all the responsibilities that often come with taking the passenger seat, or 'riding shotgun'.

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<sup>429</sup> Nancy Bowen, *Ralph Nader*, 32.

<sup>430</sup> Justin Martin, *Nader: Crusader, Spoiler, Icon*, 30.

<sup>431</sup> For a fascinating book-length study of the history of hitchhiking, see the recent Jack Reid, *Roadside Americans: The Rise and Fall of Hitchhiking in a Changing Nation* (Chapel Hill, NC: University of North Carolina Press, 2020).

One of Nader's prime resources for his self-education on the road came from the many truck drivers who often picked him up. He considered them "founts of information," especially about common types of accidents and the makes of cars most often involved in them.<sup>432</sup> Partly this specialized body of trucker knowledge came from the sheer number of hours these professional drivers spent behind the wheel, crisscrossing the country's roads year round. But of equal importance is the fact that this knowledge was acquired from their uniquely lofty point of view, poised high over the rest of traffic in those halcyon days and nights before the proliferation of the SUV. It is also crucial when considering the path of Nader's professional life, how these years as a nomad of automobility must have helped shape him. Ever the outsider, "cultivating a sense of otherness," as biographer Martin describes, Nader was anonymous long before achieving "icon" status; just one of the millions of humans putting their lives at risk year after year on the road. In this sense, Nader's highly touted reputation as 'Everyman' becomes clearly grounded in precisely what he first went into battle for: automobility and safety.

Inspired by the nascent civil rights movement, and escalating calls for gender equality, Nader felt that "insufficient attention had been paid to people's basic physical rights: against being maimed or killed. Quite often auto companies were the perpetrators of great carnage in Nader's view, and yet the violence was met by the public with a strange complacency."<sup>433</sup> So, when Nader hitchhiked to Washington D.C. for the first time at age 29, as an admittedly inauspicious Harvard Law graduate, his intention, as he saw it, was being an advocate for what he would soon term "body rights". As Nader describes in the introduction to *Unsafe at Any Speed*:

The automobile tragedy is one of the most serious of these man-made assaults on the human body. The history of that trajectory reveals many obstacles which must be overcome in the taming of any mechanical or biological hazard which is a by-product of industry or commerce. Our society's obligation to protect the 'body rights' of its citizens with vigorous resolve and ample resources requires the precise, authoritative articulation and front-rank support which is being devoted to civil rights.<sup>434</sup>

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<sup>432</sup> Justin Martin, *Nader: Crusader, Spoiler, Icon*, 30; see also Nancy Bowen, *Ralph Nader*, 32.

<sup>433</sup> Justin Martin, *Nader: Crusader, Spoiler, Icon*, 39.

<sup>434</sup> Ralph Nader, *Unsafe at Any Speed*, lxxiv-lxxv.

In *Unsafe at Any Speed* Nader singles out General Motors as the worst violator of these body rights, especially in the form of one particular automobile which he devotes an entire chapter to (the first chapter no less), titling it, tongue archly in cheek, “The Sporty Corvair: The One Car Accident.” The car in question, the Chevrolet Corvair, *was* sporty, compact and affordable, quickly making it one of Chevy’s most popular models with both consumers and critics when it was introduced in 1960; *Time* magazine put the Corvair and its designer, Ed Cole, on the cover and *Motor Trend* named it car of the year. The Corvair truly looked like no other car on the road – with its wide, low-slung body, European style curves, and complete absence of fins or chrome grill. What came under the shell, was even less conventional for an American vehicle, with an air-cooled, horizontally-set engine located in the rear and four-wheel independent suspension set into its frameless unibody. The design did have its drawbacks, however, as Nader pointed out in *Unsafe at Any Speed*, like the fact that the “Sporty Corvair” was also prone to skidding out of control, rear first, and/or rolling over with virtually no warning and in an instant. Nader was not the first to notice. By 1963 there over a hundred pending law suits regarding Corvair crashes. (Not counting the cases that GM had already settled out of court.) It was this fact that first set him on writing the book. Nader’s condemnation was unflinching:

With the receipt of hundreds of written complaints sent to General Motors by people whose Corvairs had suddenly gone out of control, and the real threat of many lawsuits which must have been anticipated by company lawyers, the absence of any corrective action year after year can only be explained by bureaucratic rigidities and the abject worship of that bitch-goddess, cost reduction.<sup>435</sup>

In Nader’s estimation, GM knew that their Corvair was unsafe, and sold it anyway, because only the money mattered. As one of Nader’s first biographers, Charles McCarry points out, this was “very close to an accusation against the corporation of negligent homicide.”<sup>436</sup>

Initially, sales on the book were modest at best. Most publications refused to review it, fearing the wrath of the automobile dealers and manufacturers like GM, whose advertising

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<sup>435</sup> Ralph Nader, *Unsafe at Any Speed*, 30.

<sup>436</sup> Charles McCarry, *Citizen Nader*, 9.



dollars kept most newspapers, and many magazines afloat in that period. Ultimately, what was responsible for transporting Nader's book from its initial printing of 11,000 copies to its almost year-long run on the *New York Times* Bestseller List was a chain of events that began in January 1966 when Nader noticed for the first time...he was being followed. It began in Des Moines, Iowa, where he had gone to testify before a safety inquiry by the state attorney general, then happened again a few weeks later in Washington, and again in Philadelphia after that. When Nader confided his suspicions to friends, many of them said they weren't surprised; others thought he was just being paranoid. Then the phone calls began, increasing in intensity and lateness as the date for his appearance to testify before Congress' hearings on the federal government's role in traffic safety neared. "Why don't you change your field of interest?" urged the first caller. "You are fighting a losing battle, friend. You can only lose," chided the second.<sup>437</sup> Ten days after he testified before the Congressional subcommittee, things got weirder. While flipping through an auto enthusiast's magazine at a drugstore in D.C., he was approached by a young brunette woman, who invited him over to her place where she and some friends were discussing foreign-affair issues.<sup>438</sup> Three days later, while at his local Safeway buying groceries he was approached by a young blonde woman who asked if he would come home with her to 'help move something heavy in her apartment'. Seeing the store was crowded with men who were clearly more suited to moving heavy furniture, Nader quickly fled. Similarly, strange attentions were also being focused on the small circle of friends in Nader's orbit, and eventually more than sixty of his friends and acquaintances were interviewed by various investigators using various names. As McCarry describes: "Everywhere they went, they asked about anti-Semitism, about sex, about the history of Nader's interest in auto safety. Few questions were addressed to

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<sup>437</sup> The content of these calls is well documented, and were later described in detail in Ralph Nader's 1970 court case against General Motors on charges of intimidation and invasion of privacy. See [http://courtroomcast.lexisnexis.com/acf\\_cases/9243-nader-v-general-motors-corp](http://courtroomcast.lexisnexis.com/acf_cases/9243-nader-v-general-motors-corp) regarding the court's decision. For detailed descriptions of GM's intimidation tactics, see Charles McCarry, *Citizen Nader*, 15-16 and Justin Martin, *Nader: Crusader, Spoiler, Icon*, 47.

<sup>438</sup> This event, and the ones that follow here are all described in each of the biographies on Nader cited above.

what General Motors later said was the basic purpose of the investigation—to determine if Nader had any connection with the Corvair lawsuits.”<sup>439</sup>

For Nader, enough was enough. He contacted his friend, James Ridgeway, who had advised for his *New Republic* article, “The Corvair Tragedy,” which had started the chain of events that led to Nader writing his book. Ridgeway then wrote a story called “The Dick,” published in the March 4, 1966 issue of *New Republic*. The response was as close to viral as was possible in 1966. As Martin describes: “The media firestorm was instantaneous. Within hours, major metropolitan dailies were all over the story. One after another, the big auto companies—Ford, Chrysler, American Motors—issued official denials, stating they had not been involved in any way. [... Only] GM had remained suspiciously silent about the whole matter. Consequently, the company headquarters was besieged with calls as the press narrowed in on GM.”<sup>440</sup>

By the next morning, Nader was on the front page of every major newspaper in the country. Within the week he had appeared on every network news show. It is no exaggeration to say that Nader had literally overnight been transformed into a public figure, as, very literally, the face of auto safety. Most news sources reported the story in Biblical proportions: David versus Goliath, albeit an Americanized version, with the battle set squarely in the world of automobility. Embraced by a burgeoning counterculture, the battle resonated equally on secular levels. Nader was often mentioned in a list of era-defining counterculture leaders and revolutionaries: Jack Kerouac, Che Guevara, James Dean, Paul Newman, Timothy Leary, Hunter S. Thompson, Stan Lee, Bob Dylan, John Lennon, Martin Luther King and Malcolm X. After all, Ralph Nader was fighting for a cause that affected literally the safety and well-being of the entire world: i.e., anyone who dared to get into an automobile. As *Time* magazine summed up: “To many Americans, Nader, at 35, has become something of a folk hero, a symbol of

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<sup>439</sup> Charles McCarry, *Citizen Nader*, 17.

<sup>440</sup> Justin Martin, *Nader: Crusader, Spoiler, Icon*, 53.

constructive protest against the status quo.”<sup>441</sup> While the notion of an automobile being your enemy had been always been a hard idea to sell, the idea that a handful of rich men running the corporations manufacturing these death machines was instantaneously relatable. As historian, Karla Gower summarizes, “Public opinion had been galvanized around auto safety almost overnight.”<sup>442</sup>

Less than two months later, President Lyndon B. Johnson proclaimed the week of May 15, 1966, National Transportation Week with the decree: “We can no longer tolerate unsafe automobiles.”<sup>443</sup> Two months after that, on August 25, 1966 the Senate and House reached their final agreement on the nation’s first auto safety bill, which was signed into law by the President shortly afterwards. The first act of the new National Traffic and Motor Vehicle Safety Act of 1966 was to create a new agency – the National Highway Safety Bureau (later renamed the National Highway Traffic Safety Administration) – to be headed up by William Haddon Jr, the pioneer responsible for first applying the epidemiological approach to accidents. Under the new law, this agency would create automotive safety standards that would apply to every automobile sold in the United States. Although manufacturers would fight nearly every new standard introduced, dragging the timeline of implementing safety features out into the 1980s, eventually the crucial safety features we know now became mandatory: seat belts, shoulder straps for front seats, shatterproof windshields, collapsible/energy-absorbing steering columns, dual braking systems, flashing hazard lights, limits on glare-producing chrome, and the elimination of anything that protruded into the cockpit of the car.

Finally, the car had become crashworthy. The sort of nest DeHaven had dreamed of. Although passage of the new law was the culmination of the decades of work done by figures like DeHaven, Stapp, Severy, and countless others, Ralph Nader was singularly responsible for their

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<sup>441</sup> This quote originates from: Lily Rothman, “Consumer Revolt,” *Time*, Vol. 94, No. 24 (December 12, 1969) which also features Ralph Nader on the cover.

<sup>442</sup> Karla Gower, *Public Relations and the Press*, 77.

<sup>443</sup> Charles McCarry, *Citizen Nader*, 21.

work reaching the mainstream public. Ironically, while Nader refused to include any lurid, sensationalistic details in his book – it was precisely the lurid, sensationalistic coverage of GM’s persecution of Nader that ultimately ended up selling his book and, indeed, the concept of safety to the American public. For the first time in the history of automobility, manufacturers would soon discover: safety *does* sell.

Just as the crash posed a threat to the delicate balance of nest and shell, so too did it reify the qualities of both, and the significance of the difference between them. With the shift to safety following the publication of *Unsafe at Any Speed*, consumers wanted thicker, sturdier shells and smoother, plusher nests. Because of Nader’s repeated focus on the built-in dangers of almost every car interior before 1965, the fastest change in car design were the interiors – literally smoothing over the entire surface, removing any protuberance: handles, knobs, dials, locks. The shells changed almost as quickly, with the sharp fins and jagged grills descending, deflating and streamlining over with molten speed.

But just as surely as auto safety was on everyone’s minds, so too, was the crash. The suddenness of this paradigm shift and resulting zeitgeist of crash awareness recalled the very first time news of a singular crash of that sort of magnitude had been shared globally (more than a hundred years before the concept of something going ‘viral’). Only it wasn’t a car at all, but the world’s first “unsinkable” ship.

### **THE FIRST CRASH GONE VIRAL (CIRCA 1912)**

Spanning 883 feet from stern to bow, the Titanic was designed in 1908 to be the world’s first “unsinkable” ship. The claim stemmed from its designer, Irish shipbuilder William Pirrie, who had divided the ship’s hull into sixteen compartments that were presumed to be watertight. According to Pirrie’s claims, because four of these compartments could be flooded with no

danger to the ship, the Titanic would prove to be “unsinkable.”<sup>444</sup> This claim would be famously echoed by the ship’s Captain Edward John Smith before the ship set sail on April 10, 1912: “Even God himself couldn’t sink this ship.”<sup>445</sup> But of course he was wrong. 160 minutes was all it took – roughly the running time of a stage play of that era; and in fact, several of the survivors described it in just those terms.<sup>446</sup> “The survivors did say during the sinking it seemed like a play,” according to John Wilson Foster, a Queens University Belfast professor who has written several books about the Titanic.<sup>447</sup> Of course the fact that the band continued to play throughout, no doubt contributed to the fictional sensation of this real life tragedy.

Most historians regard the tale of the Titanic as the beginning of a cultural fascination with transportation disasters that continues to this day. Partly, this is due to a striking arrangement of dramatic and narrative elements – tales of both heroism and cowardice in the face of almost certain death; lessons in class, race and gender disparity; a tale of technological hubris showcasing the failure of mechanization and modernization versus the superior strength of nature; and of course the fact that our cast of characters is limited to a modernized world measuring less than a thousand feet long afloat in the cold depths of the sea at night. What has never been discussed is the sinking of the Titanic as the originary point of a cultural fascination with the *crash*. In this case, the literal impact of technology with nature, i.e. an “unsinkable” ship with an iceberg. Although not addressing the sinking of the Titanic explicitly in *The Culture of Calamity: Disaster and the Making of Modern America*, historian Kevin Rozario asserts that modernity created a “love of disasters,” which was “in turn a crucial ingredient of the modernizing process—enabling, specifically, the corporate reconstruction of American society

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<sup>444</sup> The number of publications and web posts devoted to the tragic tale of the *Titanic* has only increased since the 100<sup>th</sup> anniversary of its sinking in 2012. Most of the major television and cable networks ran special programs commemorating what remains one of the most discussed disasters in history around the anniversary, as well as large features posts on their websites. Here are a few to check out: [http://www.nbcnews.com/id/46916279/ns/technology\\_and\\_science-science/t/titanics-legacy-fascination-disasters/](http://www.nbcnews.com/id/46916279/ns/technology_and_science-science/t/titanics-legacy-fascination-disasters/); <https://www.history.com/this-day-in-history/titanic-sinks>; [http://www.bbc.co.uk/history/topics/iceberg\\_sank\\_titanic](http://www.bbc.co.uk/history/topics/iceberg_sank_titanic).

<sup>445</sup> Ibid..

<sup>446</sup> In fact, the ship sank in less time than James Cameron’s (in)famous 1997 film, *Titanic*, which clocks in at a whopping 194 minutes.

<sup>447</sup> Quoted in Seth Sorenson, “Titanic’s Legacy: A Fascination With Disasters,” *NBC News* website (March 31, 2012) [http://www.nbcnews.com/id/46916279/ns/technology\\_and\\_science-science/t/titanics-legacy-fascination-disasters/#.XqXnj9NKiRs](http://www.nbcnews.com/id/46916279/ns/technology_and_science-science/t/titanics-legacy-fascination-disasters/#.XqXnj9NKiRs)

and the emergence of a mass consumer culture.”<sup>448</sup> The historic sinking of the Titanic marks the symbolic sinking of blind idealism with regards to mechanization and the dream of the Industrial Age. As a result, it marked mobility itself as manifestly sinkable; inevitably sinkable. The folly of a ship equipped with enough lifeboats for only 1/3 of the passengers aboard, resulted in the industry-wide regulation of the safety on the seas. Forever after, safety was part of design in shipbuilding.

You would think automobile manufacturers would have known their day of reckoning would come too. It would. But not in the form of one crash, as in the handy case of the Titanic; instead, it would come fifty-three years later with the publication of *Unsafe at Any Speed*. The viral speed of this change would, however, be the same. Public opinion was galvanized around auto safety literally overnight, just as public opinion formed around safety on the seas with the virtually instantaneous worldwide communication of the sinking of the Titanic. Still more than half a century before the concept of ‘going viral’ was normalized, news of the latent “unsafety” of the automobile spread across the globe. Nader’s book functioned as a lens, focusing public attention on the dangers of mobility by automobile. The sudden awareness of car accidents, local and distant, happening virtually around the clock and numbering literally millions per year gave the American public an epidemic focus. As a result, automobility was retroactively rendered *unsafe at any speed*. The closest comparison in 1965 was probably the recent revelation that cigarettes caused cancer, which provided the foundation for modern epidemiology.

More than a hundred years *before* the Titanic, the first travelers by railway were confronted by the ever-present fear of disaster, something which renowned railway scholar Wolfgang Schivelbusch explains would remain “until the railroad became part of normal everyday life.”<sup>449</sup> Although it took several decades, the normalization of railway travel led to the gradual diminishing of anxiety while traveling, and fear of the railway accident. As Schivelbusch

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<sup>448</sup> Kevin Rozario, *The Culture of Calamity: Disaster and the Making of Modern America* (Chicago: University of Chicago Press, 2007), 103.

<sup>449</sup> Wolfgang Schivelbusch, *The Railway Journey*, 130.

describes: “The new activities and forms of behavior (reading while traveling, ‘panoramic’ perception, etc.) have institutionalized the new reality of the new technological standard of travel. They have formed a new psychic layer that obscures the old fears and lets the lapse into oblivion.”<sup>450</sup> However, Schivelbusch is quick to point out that if there was an interruption to this normalcy to travel – in other words, if there was an accident – “the repressed material returned with a vengeance,” and the old fears flooded back, amplified and overwhelming. Originally described as a condition called “railway spine,” the concept of a psychic disorder caused by a railway accident would by 1880 be reclassified as “traumatic neurosis.” The concept would be revisited and re-spun in the early twentieth century by no less than Sigmund Freud, in his study of shell shock in World War I survivors. As Schivelbusch points out, “shell shock can certainly be seen as a successor to the railroad shock of the nineteenth century. In both cases the victims are psychically traumatized by a sudden and violent release of energy without being demonstrably damaged in the physical sense.”<sup>451</sup> Eventually this too becomes incorporated into the experience of railway travel, thickening the travelers’ resistance to the fear of the accident. To theorize this, Schivelbusch looks to Freud’s theory of the ‘stimulus shield’ in *Beyond the Pleasure Principle*:

This little fragment of living substance is suspended in the middle of an external world charged with the most powerful energies; and it would be killed by the stimulation emanating from these if it were not provided with a protective *shield against stimuli*. It acquires the shield in this way: its outermost surface *ceases to have the structure proper to living matter, becomes to some degree inorganic* and thenceforth functions as a special envelope or membrane resistant to stimuli. In consequence, the energies of the external world are able to pass into the next underlying layers, which have remained living, with only a fragment of their original intensity; and these layers can devote themselves, behind the protective shield, to the reception of the amounts of stimulus which have been allowed through it. By its death, the outer layer has saved all the deeper ones from a similar fate – unless, that is to say, stimuli reach it which are so strong that they break through the protective shield.<sup>452</sup>

Applying this model to train travel, Schivelbusch insists that the traveler of the later 19<sup>th</sup> century had a thicker layer of protection than earlier generations. While the mere speed of the

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<sup>450</sup> Wolfgang Schivelbusch, *The Railway Journey*, 130.

<sup>451</sup> Wolfgang Schivelbusch, *The Railway Journey*, 148.

<sup>452</sup> Quoted in Wolfgang Schivelbusch, *The Railway Journey*, 166. [The first set of emphases’ are Freud’s, the second are Schivelbusch’s.]

locomotive was akin to a projectile being fired out of a gun at the beginning of the 19<sup>th</sup> century, such a ballistic comparison of speed was unthinkable by the end of the century. Speed was normalized for the traveler, same as the new understanding of time and space, redefined by the invention of the locomotive. Key to acquiring this protective layer was the establishment of a new form of perception which Schivelbusch terms panoramic perception. This new form of seeing was responsible for normalizing perception in movement, but also enabled a level of disconnect in travelers so that they could do things like read while on the train, and more importantly, not fear the crash every moment of their travels. Schivelbusch then broadens the application of Freud's theory of the stimulus shield to modern society, arguing that:

The concept of the stimulus shield proved to be a suitable model for what one might call the formation of *an inorganic protective layer due to civilization*. The strength or density of the stimulus shield indicates the strength or density of the stimuli that it receives and, again, the strength or density of these stimuli is an indicator of the prevailing historical stage of civilization.<sup>453</sup>

Schivelbusch equates Freud's theory with a similar idea advanced in France almost twenty years earlier by Georg Simmel in his landmark study of the city and its effect on the psyche, "The Metropolis and Mental Life." In this 1903 essay, Simmel insists that the citizen of the modern city "develops an organ protecting him against the threatening currents and discrepancies of his external environment which would uproot him. He reacts with his head instead of his heart. In this an increased awareness assumes the psychic prerogative."<sup>454</sup> Stripped of any psychoanalytic framework, Simmel's proposition is a simple one; there is a dividing line between head and heart; a skillset specific to the city-dweller, acquired through metropolitan living which, he goes on later in the essay to point out, will eventually dull the urban senses. Walter Benjamin would provide his own spin on the stimulus shield in two of his most influential essays; first in a footnote in "The Work of Art in the Age of Mechanical Reproduction," three years before being more fully fleshed out in "On Some Motifs in Baudelaire." The footnote is particularly germane

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<sup>453</sup> Wolfgang Schivelbusch, *The Railway Journey*, 166-167.

<sup>454</sup> Georg Simmel, "The Metropolis and Mental Life," *Rethinking Architecture*, Ed. Neil Leach, Trans. Mark Ritter (New York: Routledge, 1997), 70.



to this study, as he makes an explicit connection of the cinema and automobility to describe the development of the early 20<sup>th</sup> century city dweller's stimulus shield: "The film is the art form that is in keeping with the increased threat to his life which modern man has to face. Man's need to expose himself to shock effects is his adjustment to the dangers threatening him. The film corresponds to profound changes in the apperceptive apparatus—changes that are experienced on an individual scale by the man in the street in big-city traffic, on a historical scale by every present-day citizen."<sup>455</sup> So, to Benjamin, by the mid-1930s, the formation of the stimulus shield is equally the product of the cinema and automobility – and specifically "big-city traffic," as he describes it. Here we see Freud's psychopathology embedded in the idea that mankind "*needs to expose himself*" to these shock effects, while Benjamin's urban focus shifts to a very specific marker of the city experience: being in an automobile in traffic.

The publication of Susan Sontag's seminal essay, "The Imagination of Disaster" in 1965 (the same year as Nader's book) is another piece of the puzzle, another sign of the zeitgeist. The essay, which marks the legitimacy of science fiction by film scholars and its subsequent entrance into the canon of acceptably 'serious' film genres, just as surely marks the disaster, explosion and crash itself as serious phenomena that likewise merited study. For scholars and academics, this essay is a sign of the slippage of the stimulus shield. It was a sign that culture has received such a shock it is necessary to reconfigure scholarship itself; to readjust its focus on the disaster itself and the threat it poses to humanity, but also the radical re-envisioning of non-human or in-human bodies, and life itself. As Sontag describes: "In the films it is by means of images and sounds, not words, that have to be translated by the imagination, that one can participate in the fantasy of living, through one's own death and more, the death of cities, the destruction of humanity itself."<sup>456</sup> Although Sontag's focus on science fiction films is a response to the real-life threat of nuclear war, and the very likely extinction of the human race, as she herself admits, an

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<sup>455</sup> Walter Benjamin, "The Work of Art in the Age of Mechanical Reproduction," Trans. Harry Zohn, Ed. Hannah Arendt, *Illuminations* (New York: Schocken Books, 2007 [1968]), 250.

<sup>456</sup> Susan Sontag, "The Imagination of Disaster," *The Science Fiction Film Reader*, Ed. Gregg Rickman (New York: Limelight, 2004 [1965]), 101.

equal threat is posed by “the depersonalizing conditions of modern life” (sounding more than a little like Benjamin, thirty years earlier). As Sontag summarizes: “[...] We live under continual threat of two equally fearful, but seemingly opposed destinies: unremitting banality and inconceivable terror.”<sup>457</sup> This description could of course be equally applied to the experience of automobility following the publication of Nader’s book. Suddenly reconfigured as a distillation of our fears of anonymity and extinction, is it any wonder that the automobile would suddenly become the focus of an all new imagination of disaster?

What isn’t mentioned by Freud, Benjamin, Simmel, Schivelbusch, or Sontag, but seems a logical extension, is a consideration of the *crash* as part of the stimulus shield necessary for living in the 20<sup>th</sup> century. The automobile accident was after all, a part of ‘big-city traffic’ from the very beginning of automobility; an event that was banalized as an aspect of driving that would eventually be banished once the world’s drivers had learned enough and practiced enough – a notion that would, of course, change dramatically after the publication of Nader’s book.<sup>458</sup> Following Benjamin’s logic, if you are exposed to enough car crashes they too will eventually be part of the protective layer necessary to the driver, an integral cog in the system of automobility. It was the same for the locomotive decades earlier. As Lynne Kirby explains in her landmark book, *Parallel Tracks: The Railroad and Silent Cinema*, the horror of train crashes was “well-illustrated, commented on, and joked about throughout the nineteenth century. Toward the end of the century the representation of sympathy for the victims tended to fade, to be replaced by a focus on the mutilation of the machine itself, as postcards, photographs, popular illustrations, and films suggest.”<sup>459</sup> We see a similar process play out in the cinema for more than the first half of the 20<sup>th</sup> century. Automobile accidents are not only a regular fixture in films, they are

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<sup>457</sup> Susan Sontag, “The Imagination of Disaster,” 112.

<sup>458</sup> There are several excellent books written about this, all of which are crucial resources for this work; see Cotton Seiler, *Republic of Drivers: A Cultural History of Automobility in America*; Lee Vinsel, *Moving Violations: Automobiles, Experts, and Regulations*; Jeremy Packer, *Mobility Without Mayhem: Safety, Cars, and Citizenship*.

<sup>459</sup> Lynne Kirby, *Parallel Tracks: The Railroad and Silent Cinema*, 61.

typically banal elements, visually. Often, the crash serves as no more than a specific plot point, signaling a shift in the narrative, or a transformation of a character.<sup>460</sup>

The publication of Nader's book and the furor surrounding it after the court case with GM would serve to crack the stimulus shield wide open, resulted in a literal overnight worldwide concern for safety. This new focus on the crash was unparalleled in the history of the automobile, but was essentially replaying the same sort of societal awakening that occurred a century earlier regarding the locomotive accident. As Schivelbusch describes: "[...] The more civilized the schedule and the more efficient the technology, the more catastrophic its destruction when it collapses. There is an exact ratio between the level of the technology with which nature is controlled, and the degree of severity of its accidents."<sup>461</sup>

With the crack in the stimulus shield, the films in the mid- to late-1960s begin to change. Crashes are no longer mere plot points, events elided on the screen with a simple before/after sequence of the car on the road versus an overturned car in the ditch, wheel still spinning. Instead, these moments become transformative for both vehicle and its occupants. Crash sequences start playing out in real time, then eventually become stretched out in time and space via slow motion. Informed by the filmmaking innovations of DeHaven, Stapp and Severy, disseminated in the form of newsreels, TV specials and driver's education films (as discussed in the previous chapter), the crashes in narrative films become increasingly *real* in 1965 providing Traveler-Spectators with reenactments of crashes that have happened, or pre-enactments of crashes that eventually will. Considering the films that fall on either side of the publication of Nader's book provide striking proof of the radical transformation of the representations of automobility and crashes in the cinema. This transformation was directly enabled by the technical innovations of the figures in crash studies that Nader credits, most notably: Hugh DeHaven, John Paul Stapp and John Severy with their combination of new camera mounts and high speed film used in their experiments, not to mention the stuntmen all three used for their

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<sup>460</sup> See Chapters One and Two for a discussion of the portrayal of automobility and crashes before 1965.

<sup>461</sup> Wolfgang Schivelbusch, *The Railway Journey*, 131.

car crash tests. Following their introduction to the spectator via the driving education films of the 1950s and early 1960s, this new approach to portraying crashes on screen would infuse narrative filmmaking's portrayal of automobility and crashes with a radical new level of visceralness, immediacy and realism for the Traveler-Spectator.

### **HITTING THE ROAD: THE DISENCHANTMENT OF DESTINATION**

Like most film historians, Stephen Prince, one of the first theorists to write about violence in the cinema, attributes the literal explosion of ultraviolence on screen in the late 1960s to the dissolution of the Hollywood Production Code in 1966 and the creation two years later of the Code and Rating Administration of G-M-R-X (precursor to the modern MPAA ratings system of G-PG-R-X that soon followed). The new configuration resulted in unprecedented freedom for filmmakers, who could now make films for a new niche-market of adult audiences. Hollywood had, at last, grown up. Prince explains:

These changes were responses to the more liberal and tolerant culture of the period, particularly the revolution in social mores tied to the youth movement. Shackled by the Production Code, movies were thirty years behind the times. Accordingly and led by the Motion Picture Associate of America [MPAA], the Hollywood industry mounted an aggressive campaign to make films relevant again for a society whose attitudes and practices no longer coincided with the morality institutionalized in the Production Code.<sup>462</sup>

Following Prince's lead, most critics and historians credit the Vietnam War and its regularly televised coverage for setting the precedent for violence – a cultural context only expanded further by the numerous political assassinations in the 1960s.

What has never been properly credited is the unprecedented public consciousness of violence and death resulting from car crashes after the publication of *Unsafe at Any Speed*, a nationwide best-seller in the spring and summer of 1966. Described colloquially as an 'epidemic' in that period, and subsequently investigated through the newly-established lens of epidemiology, the car crash was a specific form of violence equally on the public's minds in this

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<sup>462</sup> Stephen Prince, "Graphic Violence in the Cinema: Origins, Aesthetic Design, and Social Effects," *Screening Violence* (New Brunswick, NJ: Rutgers University Press, 2000), 6.

period. So, while obviously enabled by the new ratings system, the alignment of automobility and violence in road movies is a very specific form of violence, which I would argue can be credited to this seachange of public consciousness about the everyday dangers of driving. This newfound conception of automobility, thanks to Nader, charges it with a new level of volatility.

While issues of automobility are affected in almost every film released after the publication of *Unsafe at Any Speed*, the road movie genre can be read as a direct symptom of the post-Nader configuration of automobility. The figure of the consumer-activist embodied by Nader haunts virtually every frame of these films in the form of the characters who populate and pilot the nests, cockpits and interiors of the cars in these films. These are characters who are driven to drive. The specter of the crash is never far, making an appearance in virtually every road movie. The inevitable crash is built into the expectations of these travelers, part of a newfound consciousness of the anti-establishment. It is also the part of the road movie that is rarely examined in any depth, despite the fact that it often plays an important part in the journeys of each of these characters. The figure of violence is inscribed into automobility in these films starting with *Bonnie and Clyde*, *Bullitt*, *Medium Cool* and *Easy Rider*, and continuing throughout the genre to the present. While many of the defining films of this period center on automobility and the crash, they are more often grouped under the catchphrase “road movies” and examined through the critical lens of genre studies.

The sheer proliferation of films in the decade and a half that followed the publication of *Unsafe at Any Speed* in 1965 that centered on automobility and the crash provide striking proof of the zeitgeist: *Grand Prix* (John Frankenheimer, 1966), *The Wild Angels* (Roger Corman, 1966), *Targets* (Peter Bogdanovich, 1967), *Bonnie and Clyde* (Arthur Penn, 1967), *Weekend* (Jean-Luc Godard, 1967), *Playtime* (Jacques Tati, 1967), *Thunder Alley* (Richard Rush, 1967), *Two for the Road* (Stanley Donen, 1967), *Robbery* (Peter Yates, 1967), *The Thomas Crown Affair* (Norman Jewison, 1967), *Speedway* (Norman Taurog, 1968), *Bullitt* (Peter Yates, 1968), *Easy Rider* (Dennis Hopper, 1969), *Medium Cool* (Haskell Wexler, 1969), *The Italian Job* (Peter

Collinson, 1969), *Kustom Kar Kommandos* (Kenneth Anger, 1970), *Traffic* (Jacques Tati, 1971), *Le Mans* (Lee H Katzin, 1971), *Duel* (Steven Spielberg, 1971), *Vanishing Point* (Richard C. Sarafian, 1971), *Two-Lane Blacktop* (Monte Hellman, 1971), *The Getaway* (Sam Peckinpah, 1972), *The Last American Hero* (Lamont Johnson, 1973), *The French Connection* (William Friedkin, 1973), *Live And Let Die* (Guy Hamilton, 1973), *Sugarland Express* (Steven Spielberg, 1974), *Dirty Mary Crazy Larry* (John Hough, 1974), *Gone in 60 Seconds* (H.B. Halicki, 1974), *McQ* (John Sturges, 1974), *Death Race 2000* (Paul Bartel, 1975), *Taxi Driver* (Martin Scorsese, 1976), *Smokey and the Bandit* (Hal Needham, 1977), *The Car* (Elliot Silverstein, 1977), *Sorcerer* (William Friedkin, 1977), *Smokey & the Bandit* (Hal Needham, 1977), *Annie Hall* (Woody Allen, 1977), *The Driver* (Walter Hill, 1978), *Convoy* (Sam Peckinpah, 1978), *Fast Company* (David Cronenberg, 1979), *Mad Max* (George Miller, 1979), *The Blues Brothers* (1980), *Ragtime* (Milos Forman, 1981), *The Cannonball Run* (Hal Needham, 1981), *The Road Warrior* (George Miller, 1981).

Like so many firsts within automobility (and the cinema), there are several sources vying for the credit of introducing the phrase “road movie.” Most likely, that credit goes to Jordan Brotman’s 1953 *City Lights* article about Kirk Douglas: “The road movie, in its original form, came to an end with the entry of the ace on the road [sic]. But no idea, no form, is ever permitted to stand still: sooner or later, an ace was going to get on the road, a new moral threat would challenge the idea to grow greater by encompassing it.”<sup>463</sup> But after introducing the term, Brotman goes on to replace it with “highway movie,” using that phrase for the rest of the article to describe a rich post-war cycle of films that also includes *Kiss of Death* (Henry Hathaway, 1947), *Red River* (Howard Hawks, 1948), *Champion* (Mark Robson, 1949), *Sunset Boulevard* (Billy Wilder, 1950), *The Prowler* (Joseph Losey, 1951), and *Detective Story* (William Wyler, 1951). The phrase “road movie” doesn’t make its appearance in the OED for almost another twenty years, about the same time A.H. Weiler uses it in passing in a 1970 *New York Times* film

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<sup>463</sup> Jordan Brotman, “Ace on the Road: Kirk Douglas and Hollywood,” *City Lights*, Issue 4 (Fall 1953), 52.

column, to describe low-budget, sub-cultural studio American International Pictures in an announcement of their unlikely and upcoming adaptation of *Wuthering Heights* (Robert Fuest, 1970): “The ultra-with-it company that has manufactured more ‘road’ movies than you could shake a motorcycle at.”<sup>464</sup> But actually the phrase appears three months earlier in a 1970 *Motion Picture Herald* review of *Goin’ Down the Road* (Donald Shebib, 1970), by a reviewer named De Gruenwald, who sums up the film as “Canada’s ‘road’ picture, as it does resemble ‘Easy Rider’ in some ways, ‘Goin’ Down The Road’ present[ing] its protagonists as victims of shattered dreams promoted by a mass-media urban culture which is often insensitive to human conditions and problems.”<sup>465</sup> The phrase really only catches on after the publication of a 1971 issue of *Newsweek* in an article about Warren Oates claiming that “His life has wandered like a road movie, and now a road movie called ‘Two-Lane Blacktop’ has turned that life around, lifting 42-year old Warren Oates from the swollen ranks of capable character actors to the edge of swollen ranks of capable characters actors to the edge of stardom.”<sup>466</sup>

In retrospect the road movie can of course be tracked back to at least the 1930s (as discussed in Chapter Two; even before the long cycle of ‘road films’ in the 1940s with Bob Hope and Bing Crosby) but it was only recognized as a *genre* within academia in 1991 by Timothy Corrigan in his book *A Cinema Without Walls: Movies and Culture After Vietnam*. In a chapter subtitled “The Road Movie in Outer Space,” Corrigan provides the important first focus of critical thought about the genre, creating the timeline which has been followed by critics ever since. For Corrigan, while films like *You Only Live Once* (Fritz Lang, 1937) and *They Drive By Night* (Raoul Walsh, 1940) provided important prototypes for the genre, “the road movie is very much a postwar phenomenon and is rooted in the institutional turbulence that describes the cinema after that war, with its foundation in the fifties and its maturity in the sixties and

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<sup>464</sup> A.H. Weiler, “After Love Story”; After ‘Love Story,’ *New York Times* (December 6, 1970). <https://www.nytimes.com/1970/12/06/archives/after-love-story-after-love-story.html>. Accessed July 7, 2020.

<sup>465</sup> De Gruenwald, “Perfect Friday,” *Motion Picture Herald* (October 21, 1970), collected in *Motion Picture Herald* (Quigley Publishing Company, 1971) 519.

<sup>466</sup> “Actor’s Actor,” *Newsweek*, Vol 78 (1971), 91?

seventies.”<sup>467</sup> Corrigan identifies the basic thematic core of the road movie as the quest motif “which propels the usually male characters along the road of discovery,” tracing its heritage back as far as Homer’s *Odyssey*, subsequently weaving its way through the works of Chaucer, Voltaire, Fielding, Goethe, Hogarth and Joyce.<sup>468</sup> To Corrigan (and most of the critics who have written about the road movie subsequently), the genre is traditionally focused almost exclusively on white men, with the road itself representing the inscription of a patriarchal perspective on a world which might be seen as “‘male,’ while being founded on heterosexual desire.”<sup>469</sup> Steven Cohan and Ina Rae Hark expand on this notion in their introduction to *The Road Movie Book*, the first published collection of essays about the genre, arguing that generally “the road movie promotes a male escapist fantasy linking masculinity to technology and defining the road as a space that is at once resistant to while ultimately contained by the responsibilities of domesticity: home life, marriage, employment.”<sup>470</sup> One of the most important precursors to the road movie of the 1960s which Corrigan fails to take into account is Jack Kerouac’s 1957 novel, *On the Road*, which sets the stage for the configuration of two white male ‘buddies’ hitting the road for adventure and awakening long before *Easy Rider*. As Cohan and Hark point out, before *On The Road*, “road movie protagonists were either heterosexual couples, as in *It Happened One Night*, *You Only Live Once*, *Sullivan’s Travels*, *They Live by Night* and *The Long, Long Trailer*, or whole communities of displaced persons, as in *Wild Boys of the Road*, *The Grapes of Wrath*, or *Three Faces West*.”<sup>471</sup>

According to David Laderman, who wrote the first book-length study of the road movie, *Driving Visions: Exploring the Road Movie*, in 2002, road movies that are “counterculturally inflected, independently produced, medium-to-low-budget – fall more or less into either of the

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<sup>467</sup> Timothy Corrigan, *A Cinema Without Walls: Movies and Culture After Vietnam* (New Brunswick, NJ: Rutgers University Press, 1991), 143.

<sup>468</sup> Timothy Corrigan, *A Cinema Without Walls*, 144.

<sup>469</sup> Timothy Corrigan, *A Cinema Without Walls*, 143-144, 146.

<sup>470</sup> Steven Cohan and Ina Rae Hark, *The Road Movie Book* (London: Routledge Press, 1997), 3.

<sup>471</sup> Steven Cohan and Ina Rae Hark, *The Road Movie Book*, 8. See Chapter Two for a discussion of many of these films.



two categories *Easy Rider* and *Bonnie and Clyde* delineate: the quest road movie and the outlaw road movie.”<sup>472</sup> As he goes on to explain:

*Bonnie and Clyde* and *Easy Rider* should be viewed as the genre-defining origin of the contemporary road movie, not only for the various ways they elaborate road travel, and only for the way this elaboration reflects the countercultural, New American independent film sensibility. They also are truly watershed films, to which can be traced most road movies comprising the genre’s first wave, roughly between 1967 and 1975.<sup>473</sup>

But while Laderman considers *Easy Rider* and *Bonnie and Clyde* overt sociopolitical critiques of the nation they are driving through, the films in the road movie cycle that follow focus “on existential loss more than social critique,” where “driving on the open road becomes an allegory of a personal search through life’s meaningless landscape.”<sup>474</sup> Part of this disconnect originates from the fact that many of the road movies in this period were made by young directors inspired by films made outside of this country, particularly the French New Wave. As Devin Orgeron explains in his 2008 book on road movies: “As a newly forming, highly educated, and deeply skeptical postwar youth market clamored in the 1960s for new fare, a wave of existentially inflected, formally inventive European cinematic products filled the recently opened gap.”<sup>475</sup> What results are young filmmakers like Dennis Hopper, Monte Hellman, Terrence Malick, Francis Ford Coppola, Martin Scorsese and Steven Spielberg turning an outsider’s perspective on their own country which they barely recognized anymore.

To date, the road movie genre, perhaps more than any other, remains largely undefined; and in early film criticism, ignored altogether. Even when scholarly journals like *Sight and Sound* and *Film Quarterly* publish articles on the road movie genre, “they seem to take for

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<sup>472</sup> David Laderman, *Driving Visions*, 82. Laderman provides a list of key films, worth repeating here, as many of them are referenced and/or examined in this work. His list of ‘quest road movies’ includes: *The Rain People* (Francis Ford Coppola, 1969), *Five Easy Pieces* (Bob Rafelson, 1970), *Two-Lane Blacktop* (Monte Hellman, 1971), *Duel* (Steven Spielberg, 1971), *Vanishing Point* (Richard Sarafian, 1971), *The Last Detail* (Hal Ashby, 1973), *Scarecrow* (Jerry Schatzberg, 1973), *Paper Moon* (Peter Bogdanovich, 1973), *Road Movie* (Joseph Strick, 1973), *Harry and Tonto* (Paul Mazursky, 1974) and *Bring Me the Head of Alfredo Garcia* (Sam Peckinpah, 1974). His list of ‘key outlaw road movies’ includes: *Boxcar Bertha* (Martin Scorsese, 1972), *The Getaway* (Sam Peckinpah, 1972), *The Sugarland Express* (Steven Spielberg, 1973), *Badlands* (Terrence Malick, 1973), *Slither* (Howard Zieff, 1973), *Thieves Like Us* (Robert Altman, 1974), *Thunderbolt and Lightfoot* (Michael Cimino, 1974), *Dirty Mary, Crazy Larry* (John Hough, 1974), *Crazy Mama* (Jonathan Demme, 1975).

<sup>473</sup> David Laderman, *Driving Visions: Exploring the Road Movie* (Austin: University of Texas Press, 2002), 82.

<sup>474</sup> David Laderman, *Driving Visions*, 83.

<sup>475</sup> Devin Orgeron, *Road Movies*, 4.

granted that readers know well the elements that constitute this category,” as Gilberto Blasini points out in his 2002 dissertation.<sup>476</sup> Neither Barry Keith Grant nor Wes Gehrig mention the road movie in their early works on genre, while neither David Laderman nor any of the contributors in *The Road Movie Book* ever actually *define* the genre.<sup>477</sup> The first published definition comes from Daniel Lopez in his 1993 book *Films By Genre*, framing the genre largely in terms of characterization: “The protagonists in this type of film are either rugged individualists who make the road their home and use it for some daredevil purpose or challenge, or they are solitary individuals who embrace the road as a way of life.”<sup>478</sup> To date, Blasini’s dissertation provides the most detailed definition of the road movie, even though his study is limited to those produced in the United States:

Specifically, a US road movie is a film constructed around a journey in a motorized vehicle of usually two characters on the road (streets, highways, freeways, deserted roadways, two-lane blacktops, or even an uncharted piece of land that becomes an ‘impromptu’ road) that takes them through different places or milieus in the United States. [...] Furthermore, motorized vehicles become the means through which these films articulate a contemporary subjectivity marked by an interaction with (if not dependency on) technology.<sup>479</sup>

Most critical works on the road movie tend to focus on certain features of these films that may or may not be specific to the genre: motivation, rationale, politics, aesthetics. Laderman tells us: “The driving force propelling most road movies, in other words, is an embrace of the journey as a means of cultural critique. Road movies generally aim beyond the borders of cultural familiarity, seeking the unfamiliar for revelation, or at least for the thrill of the unknown.”<sup>480</sup> Cohan and Hark introduce their book on the road movie with the notion that: “Forging a travel narrative out of a particular conjunction of plot and setting that sets the

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<sup>476</sup> Gilberto M. Blasini, “Fasten Your Seat Belts, It’s Going to Be a Bumpy Ride!” *Road Movies and US Society, 1967-85*. (Ph.D. Dissertation, University of California, Los Angeles, 2002), 1-2.

<sup>477</sup> See Barry Keith Grant, *Film Genre: Theory and Criticism* (Meutchen: Scarecrow Press, 1977), Wes Gehrig, *Handbook of American Film Genres* (New York: Greenwood, 1988), David Laderman, *Driving Visions: Exploring the Road Movie* (Austin: University of Texas Press, 2002) and Steven Cohan and Ina Rae Hark, *The Road Movie Book* (London: Routledge Press, 1997).

<sup>478</sup> Daniel Lopez, *Films by Genre* (Jefferson, NC: McFarland & Company, Inc. Publishers, 1993), 256-257.

<sup>479</sup> Gilberto Blasini, “Fasten Your Seatbelts [...]” 5. Blasini’s dissertation also offers a fairly exhaustive summary of the critical works on the road movie that had been published up to 2002, when his dissertation was completed.

<sup>480</sup> David Laderman, *Driving Visions*, 1.

liberation of the road against the oppression of hegemonic norms, road movies project American Western mythology onto the landscape traversed and bound by the nation's highways."<sup>481</sup> To this, Mikita Brottman and Christopher Sharrett add: "In the traditional road movie, the road functions as a metaphor for the path of history, the impetus and trajectory of human civilization."<sup>482</sup> While Devin Orgeron claims: "Road movies appeal to us because they tap into as well as arouse our desire for modernity, our desire to be perceived as moving (and quickly at that) against or beyond tradition."<sup>483</sup>

Initially greeted by critics as celebrations of counter-culture, the road, and mobility, more recently, critics have concentrated on just the opposite. While Laderman sees the road movie as often presenting conflicting layers of progressive and conservative thought, Orgeron argues that these films "repeatedly focus on the consequences of a culture moving, often quite rapidly, away from the stabilizing structures of community and communication," ultimately presenting "a hopeless and lamentable mobility in an effort to eulogize or find *stability*."<sup>484</sup> It is true, as Cohan and Hark point out, "the road movie genre has repeatedly worked, first, to set in opposition two contrasting myths central to American ideology, that of individualism and that of populism, and second, to use the road to imagine the nation's culture, that space between the western desert and the eastern seaboard, either as a utopian fantasy of homogeneity and national coherence, or as a dystopic nightmare of social difference and reactionary politics."<sup>485</sup> But the fact is, the *car* is what makes the journey possible, extending the "lure of both freedom and destiny" before the road. To embrace automobility provides both direction and purpose. The safety of the nest of the car interior provides travelers with a safe space to observe both utopias and dystopias, while the shell protects them and isolates them as they pass through either world.

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<sup>481</sup> Steven Cohan and Ina Rae Hark, *The Road Movie Book*, 1.

<sup>482</sup> Mikita Brottman and Christopher Sharrett, "The End of the Road: David Cronenberg's *Crash* and the Fading of the West," *Car Crash Culture* (New York: Palgrave MacMillan, 2001), 204.

<sup>483</sup> Devin Orgeron, *Road Movies: From Muybridge and Méliès to Lynch and Kiarostami*, (New York: Palgrave MacMillan, 2008), 2.

<sup>484</sup> Devin Orgeron, *Road Movies*, 2.

<sup>485</sup> Steven Cohan and Ina Rae Hark, "Introduction," *The Road Movie Book*, 3.

After listing such disparate, hybrid “road movies” as *It Happened One Night* (1934), *Sullivan’s Travels* (1941), *The Grapes of Wrath* (1940), *Gun Crazy* (1949), *The African Queen* (1951), *Bonnie and Clyde* (1967), *Easy Rider* (1969), *Badlands* (1973), *Lost in America* (1984), and *Natural Born Killers* (1994), and *Oh Brother, Where Art Thou?* (2000), critic Christopher Morris points out: “From these examples it is easy to see the difficulty of sustaining a definition of the road genre,” asking the very valid question, “Is the primary genre really ‘road’ after all and the ‘sub-genre’ something else? Is the sub-genre really the genre? How much road travel makes a road film?”<sup>486</sup> To these very valid questions, I would add one more, which no other critic/historian ever seems to ask: *What about automobility?*

### **REFRAMING THE ROAD MOVIE VIA AUTOMOBILITY**

The seemingly single-minded focus on the road that virtually every book and article about ‘road movies’ has is a bit puzzling. The car itself often registers as a sort of blindspot, as if the interface between the traveler(s) and the road is invisible; an invisible vessel. For most critics, like Cohan and Hark, the significance of the vehicle itself in the road movie is minimal, essential only to the story’s set up, helpful in cinematographic framing which facilitates dialogue, and encourages coupling. (“Two people in the front seat of a vehicle make for easy classical framing and keep the dialogue going. The confined space of the car, the shared lodgings, booths in diners, and often hardship and desperation build intimacy and plot conflict quickly,” Cohan and Hark point out.<sup>487</sup>) In “The Reflexivity of the Road Film,” siding with Derrida’s warning that “a definition of the road film genre and a list of traits that would police its boundaries,” Christopher Morris narrows his study to films already designated road films by other scholars “de facto, by critical practice and study what they have in common—the figure of the road,” without mentioning the vehicle at all.<sup>488</sup> To be fair, Corrigan does draw attention to

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<sup>486</sup> Christopher Morris, “The Reflexivity of the Road Film,” *Film Criticism*, Vol. 28, No. 1 (Fall, 2003), 25.

<sup>487</sup> Steven Cohan and Ina Rae Hark, “Introduction,” *The Road Movie Book*, 8.

the vehicles in these films as extensions of our own bodies: “Cars and motorcycles represent a mechanized extension of the body, through which that body could move farther and faster than ever before and quite literally evade the trajectory of classical narrative.”<sup>489</sup> Even Laderman does address the fusion of the car and driver, but his discussion is limited to barely a paragraph in the introduction to his book. Here, he points out that “at times this sense of human-machine interface suggests that the vehicle itself is a character in the film, through special close-ups of the car’s machinery ‘working’ to race down the road, for example.”<sup>490</sup> He then goes on to explain “the most generically privileged vehicle is the automobile,” but discusses them as, essentially, a postwar, modernist update on “the rugged individualist mythology of the Old West,” as if the automobile were a mere update on the horse.<sup>491</sup> While the connection is certainly apt and the historical framework is there, the connection between driver and vehicle is radically different, as is his/her perception of the landscape he/she moves through, the relation to inside and outside, nest and shell, and of course speed itself, as discussed earlier in this dissertation.

Automobility is rarely mentioned in any of the critical works about the road movie. The interwoven system of driver, car and environment that makes up automobility in films remains largely unexplored. Yet it is *automobility* that is truly at the root of the road movie. Not (just) the road. Laderman does use the word “automobility” a handful of times in random places in his book, but the word is used as though equivalent and interchangeable with “mobility” or “movement.”<sup>492</sup> Of course it is far more than that. Automobility is the combination of autonomy and mobility, the system of roads and the system of rules governing over them, with the car at the center of this complex interrelational system.<sup>493</sup> It is also the container for community –

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<sup>488</sup> Christopher Morris, “The Reflexivity of the Road Film,” 25.

<sup>489</sup> Timothy Corrigan, *A Cinema Without Walls* (New Brunswick, NJ: Rutgers University Press, 1991), 144-146.

<sup>490</sup> David Laderman, *Driving Visions*, 18.

<sup>491</sup> David Laderman, *Driving Visions*, 14.

<sup>492</sup> David Laderman, *Driving Visions*, 64, 71, 110.

<sup>493</sup> Mike Featherstone, “Automobilities: An Introduction,” 1. To this, John Urry would also add ‘autobiography,’ ‘automatic,’ ‘automaton’ and ‘autopoietic’; see John Urry, “The ‘System’ of Automobility,” 26.

often, a self-contained bubble of subculture within the nest/interior of the automobile – moving through a larger world (whether it is the cityscape of San Francisco in *Bullitt*, Midwestern Americana in *Bonnie and Clyde* and *Badlands*, or the broader landscape of the southwest, comprised of plains, mountains and deserts, as seen in *Easy Rider*, *Vanishing Point*, *Two-Lane Blacktop*, *Wild at Heart*, *Kalifornia* and *Natural Born Killers*). In each of these films the Traveler-Spectator is presented with the eco-system of automobility; or, as John Urry describes:

an extraordinarily powerful *complex* constituted through technical and social linkages with other industries, car parts and accessories; petrol refining and distribution; road-building and maintenance; hotels, roadside service areas and motels; car sales and repair workshops; suburban house building; retailing and leisure complexes; advertising and marketing; urban design and planning; and various oil-rich nations.<sup>494</sup>

The road, of course, is just *one* element. The vehicle is another, and a far more complex one at that. Described by some sociologists as a “hybrid,” by others, an “assemblage,” or even a “hybrid assemblage,” the interface of car and driver is a subject addressed in sociology more than anywhere else. Preferring the term “assemblage,” sociologist Tim Dant points out in his oft-quoted article, “The Driver-Car,” that while the word “hybrid” refers to the collaboration of human and object forms, the word “refers to the offspring of two species that are usually unable to reproduce whereas the Driver-Car is an assemblage that comes apart when the driver leaves the vehicle and which can be endlessly re-formed or re-assembled given the availability of the component cars and drivers.”<sup>495</sup> I would argue, however, this definition neglects to take into account the lasting impression of the fusion of these two forms – most notably in the form of perception itself, forever altered by the influence of the windscreen. As architect-turned-film-critic Iain Bourden points out in *Drive: Journeys Through Film, Cities and Landscapes*, “Driving in cinema is thus re-lived through the act of driving, and in turn re-represented through yet later films and other cultural imaginations. Movies are not, therefore, a simple reflection of driving, but instead an integral part of how we perceive, project, represent and engage in this practice.

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<sup>494</sup> John Urry, “The ‘System’ of Automobility,” 26.

<sup>495</sup> Tim Dant, “The Driver-Car,” 62.

Driving embodies cinema, just as cinema visualizes driving.”<sup>496</sup> In other words, when we are presented with a windscreen on screen (whether it is the ‘big screen’ of the motion picture theatre, the ‘small screen’ of the television in our home, or smaller screen of our smartphone), we reconnect with the assemblage and are once again part of the Driver-Car hybrid. Our act of viewing a scene that takes place in a car, activates body memories of our own automobile journeys. This becomes especially more striking, visceral and real starting when the cinema begins to do away with rear-projection and starts shooting in actual cars on actual roads – a practice started by the driving safety films of the late 1950s, and picked up by narrative feature films starting in 1966 with *Grand Prix*. As British film critic John Orr explains:

The studio perennial of talking heads framed against a process screen is dropped in favor of car mounts placed at any number of angles, high chopper shots and following shots from other automobiles. The camera moves with the moving object in its lens, as part of the process of movement in general. This reflexive fix is part of what gives the car its spectator appeal, making it an ecstatic version of the body extended in space and time.<sup>497</sup>

In this sense, the striking new portrayal of automobility via actual cars moving through actual space in 1966 must have registered on the same visceral levels as the equally new portrayals of violence in the period. If anything, more so. In these road movies we not only see automobiles driving at unsafe speeds, we are inside the vehicles looking out at the world we are speeding through. And when the crash occurs, as it inevitably does, it is not faked; special effects are rarely used. The crash is real – and unlike anything else they’ve seen – other than the images young audiences first viewed in the driver’s education films. While much of the relatively large body of scholarship that focuses on the road movie addresses the genre in terms of the period of unparalleled social unrest and activism that frames it, I wish to apply a different lens to some of oft-discussed films above -- specifically the transformation in on-screen representations of automobility and the conception of the crash following the publication of Nader’s book.

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<sup>496</sup> Iain Bourden, *Drive: Journeys Through Film, Cities and Landscapes* (London: Reaktion Books, 2012), 13.

<sup>497</sup> John Orr, *Cinema and Modernity* (Cambridge, England: Polity Press, 1993), 130.

## **START YOUR ENGINES (IN WIDESCREEN) – GRAND PRIX**

In the world of the narrative fiction feature film, the film that singlehandedly ushers in the new post-Nader world of automobility is *Grand Prix* (John Frankenheimer, 1966). While seldom recognized in critical works about the road movie, typically being dismissed as purely a melodramatic ‘racing movie,’ the film essentially functions as a racing film *within* a road movie. The plot follows an international ensemble cast of racecar drivers making their way through the Grand Prix racing circuit in Europe, from one track to the next, juggling the dangers of their personal lives on the road with the dangers they encounter on the racing tracks.

Shot in June of 1966, and released in December of that year, *Grand Prix* was the first feature film to integrate the technical innovations of the crash test films of Stapp, Severy and DeHaven. But it isn’t really Frankenheimer that deserves the credit here (at least not all of it). Saul Bass was responsible for the design and direction of many of the most striking sequences in the film, featuring masterful usage of the relatively new split-screen technique that rate him a special title card that describes him as “Visual Consultant; Montage and Titles” – strikingly superimposed over a close up of a helmeted driver putting on his goggles (suggesting perhaps he is the one in the driver’s seat, creatively speaking). Shot in Super Panavision 70mm and presented in limited engagement 70mm Cinerama screenings, the film’s advertising campaign promised that for the first time “you are inside the cars,” which enabled the Traveler-Spectator “all the glamour and greatness of the world’s most exciting drama of speed and spectacle!” as Cinerama “sweeps you into a drama of speed and spectacle!”<sup>498</sup> The studio made good on the first promise at least, and were rewarded by the Motion Picture Academy with Oscars for Best Editing, Best Sound and Best Sound Effects, and a profit at the box office that landed them in the list of top ten grossing films of 1966.

The impetus for the film was Frankenheimer’s love of racing (an amateur racer himself), with the idea for the film first taking shape in 1965 when he took a break from shooting *The*

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<sup>498</sup> These descriptions figured prominently on the movie posters created to advertise the film. See the IMDB entry for a sampling: [https://www.imdb.com/title/tt0060472/?ref=nm\\_sr\\_srsg\\_o](https://www.imdb.com/title/tt0060472/?ref=nm_sr_srsg_o)



*Train to go to Monaco* and be one of those spectators in the crowd. While the narrative for the film was modeled on *Grand Hotel*, i.e. melodrama with a top-heavy cast, Frankenheimer wanted to achieve an unparalleled realism in the driving sequences, starting with the very gutsy move of insisting that all of his stars not only drive their own cars, but drive them at high speeds. To accomplish this, he enrolled his lead actors in extensive driving courses for three weeks of eight-hour days at Jim Russell's auto school in England. As film historian Barry Monush explains in *Everybody's Talkin' The Top Films of 1965-1969*: "Dispensing with special effects and with the customary rear-projection that had always been such a detriment to such movies, and falling back on stunt drivers as little as possible, the director actually photographed James Garner, Yves Montand and Antonio Sabàto in such a way that audiences could tell that these men were indeed piloting their own vehicles.<sup>499</sup> The photography of the racing sequences in the film remains breathtaking even in 2020, but seeing the film upon its release at the tail-end of 1966 must have been even more so, not only because of the astounding shots captured by a new generation of car mounts, but by the complete absence of rear-projection, which was still the *de facto* embodiment of automobility in the cinema.

The film opens with two minutes of black screen punctuated only by sparse white titles introducing the names of the film's starring cast, after which we emerge from an exhaust pipe with our title card, engine revving loud and fast, belching exhaust at high RPMs. Behold, our entry into this new post-Nader world of automobility. The screen splits into six identical images of the exhaust, then twelve and we are enveloped in smoke and the promise of imminent speed. We meet our tires next in extreme close up, again via multiple screens; the sharpness of the 70mm photography shows the depth of the tread, the dust already accumulating, the chalk mark on the tire that will soon be lined up with the starting line. Wrenches clasped tight in a series of hands in several skin colors promises this to be an international world, multicultural, but also almost entirely male. The wrench tightens a bolt on a spring in extreme close up, then again

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<sup>499</sup> Barry Monush, *Everybody's Talkin': The Top Films of 1965-1969* (New York: Applause Theatre & Cinema Books, 2009), 149.

multiplies, splitting the screen into twelve tiny versions of the same image, followed by the selection and installation of a sparkplug, that divides dizzyingly into four, then sixteen, then fifty-six smaller screens in a matter of seconds. In-between this series of multiplying close ups and extreme close ups we see hyper-realistic shots of the crowd, their stares directed off-screen from a distance at what our privileged position in the cinema has already given us access to.

We are introduced to a dashboard in widescreen, with sections of screen portioned off, devoted to gauges and controls, LEDs and toggle switches. It is certainly not the dashboard we are used to. But then, this is the world of Formula One racing; a world devoted to only the most expert drivers in the world, which, as it turns out includes no less than James Garner, Yves Montand and Toshirô Mifune. There's no way of doubting that fact, thanks to the debut of car-mounted SuperPanavision 70mm cameras that regularly feature our stars in close-up, even as they move at top speed on the actual streets of Monaco. These close ups are virtual duplicates of the shots of Stapp in his rocket sled; shots that most of the film-going audience in 1966 would have been familiar with thanks to his regular appearances in newsreels and on television. The result was to transfer almost immediate authenticity to the racing scenes in the film – something which all the critics agreed upon, even the ones who panned the film, dismissing it as old-fashioned melodrama. The fact that director John Frankenheimer insisted on shooting all racing scenes in real-time, at top speeds, was a fact that figured prominently in the promotion of the film at the time, and is one of the first factoids listed on the IMDB entry for the film. As such, the film's stars are elevated to something more than either actor or racer; something more closely approximating the status of John Paul Stapp, whose very life was aligned with the placement of the cameras within the nest of his rocket sled: the *Driver-Car-Star*.

The experience of the dashboard in split-screen replicates the idealized perspective of the driver; somehow able to focus in all directions all at once, constantly sweeping the vista, taking it all in, all-knowing. At the same time, it is a virtual compartmentalization of the internal workings of these high-speed automobiles providing a privileged point of view that the cinema is

incomparably good at. The use of split screen again pushes the limits of the viewer's sensorium. A triptych offers the privileged POV even a Formula One driver couldn't get, crowded into the cockpit like he is: feet on the pedals (far left panel), right hand on the throttle (far right panel), the driver in the middle in medium-close up as he careens around a curve. Often screens are doubled or tripled, keeping some semblance of geometric balance, and offering the viewer a dizzying kaleidoscopic perspective from multiple points of view. Throughout the sequence we get the feeling that Saul Bass is both referencing the hallucinogenic hijinks of Busby Berkeley's cascading spirals and Andy Warhol's multi-image grids. The cumulative effect on the spectator of this mesmerizing 7-minute opening credit sequence is an effective melding of the two.

Our immersive entry into the world of automobility is furthered by the deft use of stereo sound. There is a musicality of location sound, mixing the growing anticipation of the crowd, the tension of the mechanics and drivers, revving their engines, punctuated by the sounds of metal on metal, as various tools are applied to nuts, bolts, springs, engines, and wheels. Like the visuals, the sounds too are meant to illustrate the breadth of the spectrum of sound, one that, like the Cinerama screen, was the widest offered in 1966; an expansive soundscape that would deliver the sensation promised by the advertising campaign: "you are *in* the cars."<sup>500</sup>

The guiding voice throughout the opening racing sequence is the authoritative voice of the racetrack announcer. He is the one who introduces us to each character, as we meet them in close up behind the wheel of their respective Formula One racers. One by one, we are introduced to our international cast of James Garner, Yves Montand, Toshirô Mifune, Brian Bedford and Antonio Sabàto, at the wheel of an international cast of cars: Ferrari (Italy), Lotus (UK), Brabhams (UK), McLaren (UK), American Eagle (U.S.), Yamura (a fictionalized version of

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<sup>500</sup> In a 15-minute featurette made to promote the feature film for MGM entitled *Grand Prix: Challenge of the Champions* (1966), we are informed that while the international cast in front of the cameras is assuredly star-studded, the cast behind the cameras are equally international big names in the world of racing, with award-winner racers Phil Hill, Graham Hill, Richie Ginther, even the 1966 champion, Jack Brabham are all behind the wheel of the various camera cars in use. But we quickly learn it is the cameras that are the true stars of the short film; sixteen of them, "more cameras than have ever been used before," we are told in dramatic voice-over (in fact, the entire number the studio owns, they neglect to mention.) We see them mounted in weird and wondrous ways to the cars which of course are all but invisible in the feature film. In one sequence we see what appears to be a stripped down Lotus, with one camera mounted to where the hood normally would be, trained on the road, and a second mounted to the rear of the car where the trunk should be, trained on Montand's Ferrari, next to it and trailing slightly behind. "Wherever they race, the Cinerama cameras race with them," we are guaranteed again in dramatic voice-over.

Honda from Japan), and a supporting cast of real life racers who we see as other drivers or working in the pit crews throughout the film, including Formula One World Champions Phil Hill, Graham Hill, Juan Manuel Fangio, Jim Clark, Jochen Rindt and Jack Brabham, as well as other drivers recognizable to most racing fans of the time, like Dan Gurney, Ludovico Scarfiotti, Richie Ginther, Joakim Bonnier, Bruce McLaren and Jo Siffert.<sup>501</sup> Here, the credit sequence shifts gears, so to speak, to a jerky form of slow motion synced to the soundtrack of an irregular heartbeat, as we watch our stars transform into Driver-Cars as they slowly apply their racing goggles. This seemingly insignificant move builds in gravitas through repetition and solemnity. It is both a symbolic act and a practical one that marks the virtual reboot of automobility demanded by Nader. For what we soon discover is that these are vehicles without functional windcreens; barely a sliver of tinted glass marks the uppermost frame of the cockpit (a fact which the Formula One enthusiasts would have already known of course); certainly not big enough to look through, and barely enough to do more than slightly avert the flow of wind into the faces of these drivers. So we are at a return to the first generation of driving at the turn of the century. A time before the cockpit, the nest, or even the windshield. A time when the singular priority in automotive safety was to protect the eyes (with goggles). A time when the sensorium of driving was three hundred and sixty degrees; in the open; in nature, yet propelled by the latest (and already touted as greatest) achievement of the industrial age: the automobile. At the same time, we have also returned to a point when the driver was most vulnerable, as most Formula One racers would not be equipped with seatbelts until the late 1980s.

Emerging out of the starting gate we meet a cast transformed; now man-machines, these celebrity Driver-Cars are no longer actors in a film but drivers in a real race with the very real stakes of life and death. Sound returns at a deafening level with the rev and roar of the engines and a split-screen flourish of a thumbs up from behind the wheel, we get our director's credit and shift into real time. Another dazzling cascade of close ups follows, starting with a repeat of

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<sup>501</sup> Although listed in the opening credits, we won't meet the international cast of actresses until after the first leg of the race: Eva Marie Saint, Jessica Walter, Françoise Hardy, Geneviève Page, and Rachel Kempson.

our cast, each framed in the small circular rearview mirrors mounted just outside the cockpits of their vehicles; the roundness repeats in a series of gauges and speedometers; this geometrical logic, measured in circles of cut glass shifts to clocks and watches as the starter announces “ten seconds” to the line-up of racers. It is only when the race starts, and the cars tear out of the gate that we finally get our master shot, wide, from overhead, to reveal that this is a race staged not on a track, but in the narrow streets of Monaco, lined with a live audience of thousands pressed to its edges. With this, the life and death stakes of the race increase literally *thousandfold* as it is not just the lives of the drivers at stake, but also the life of each spectator: man, woman and child of literally all ages. For the rest of the film we are regularly treated to dazzling bird’s eye perspective shots from a helicopter, barely able to keep up with the drivers below. From this vantage point our drivers can only be identified by their cars, the Driver-Car hybrid Tim Dant theorizes about, or in this case, the Driver-Car-Star. The head of each driver, is now just another integral appendage of the car itself; the control center, where the nest should be, is instead a vulnerable chunk of helmeted meat protruding just above the metal shell on four wheels.

As the Driver-Car-Stars enter the second lap of the race, the film changes from pure racing coverage with a soundtrack of purely atmospheric racing sounds to a series of split screen portrayals of the race soundtracked by voiceovers of our Driver-Car-Stars, originating from pre-race interviews. Here too, our world of racing is built from the ground up via an insider’s perspective. “These cars, you sit in a box, a coffin. Gasoline all around. It is like being inside a bomb,” the first driver, Nino Barlini (Antonio Sabàto) warns us. Or, as Yves Montand’s character, Jean Pierre Sarti explains: “Danger. Well, of course. But you’re missing a very important point. I think if anyone imagined – really imagined – what it would be like to go into a tree at 150 miles an hour, we would probably never get into the cars at all. None of us. So it has always seemed to me that to do something very dangerous requires a certain absence of imagination.”

In *Grand Prix*, we encounter a narrative haunted by crashes; the two “bad accidents” in the previous year by Pete Allen (James Garner), the fatal accident of his best friend, a former

driver named Roger Stoddard, whose brother Scott (Brian Bedford) we meet now racing instead -- and of course the crash (or crashes) that we, like the audience of spectators at the race, anticipate is coming throughout the film. Like the audiences at auto races, often criticized for attending in the hopes of seeing a bad accident, so too do the Traveler-Spectators of racing films anticipate the eventual crash. Throughout the film we fear for our characters crashing, at times even fearing the camera itself might crash – particularly in the sequences when the camera is mounted low to the ground, either on the front of a vehicle shooting the vehicles in front of it, or mounted to the back of the vehicle photographing the vehicles following dangerously close behind. No doubt this is also due in part to how close the camera is to the hard blacktop speeding by so closely underneath. These shots are some of the shakiest of the entire film, giving the Traveler-Spectator a very tactile warning that we are getting too close to the road.

It doesn't take long for what we are waiting for, with the first crash occurring just a scant 23 minutes into the epic 180-minute running time of the film. This first crash sequence, involving two cars, is photographed in real time from multiple cameras and angles, starting with a terrifying close up of the rear tire of Garner's vehicle making contact with the front tire of his fellow team member (Bedford).<sup>502</sup> This first contact starts a chain reaction of crashes building in magnitude, ultimately sending Garner's car careening over the embankment and into the Mediterranean Sea – seen from Bedford's POV behind the undersized windshield shortly before his car flips over, and finally, in the sequence's culmination, collides with another camera itself.

After that, it is an interminable forty minutes of virtually static soap opera dirge (not even approximating the rewarding melodrama of *Grand Hotel*, which director Frankenheimer claimed he was seeking to channel) before our Driver-Car-Stars get back on the road, and the film once again begins to move. This sequence is shot entirely through the POV of Yves Montand's character, effectively seen through rose-colored racing goggles. Eva Marie Saint's face is superimposed over the winding roads of the race, intercut with shots featuring anything

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<sup>502</sup> The cause of the crash is almost identical to the one we saw in *The Crowd Roars* (Howard Hawks, 1932), discussed in depth at the close of Chapter One.

but the race in the foreground and in focus – flowers, spectators eating baguettes and drinking wine, lovers kissing, children playing, even roadside decorations. Shots of the actual race are doubled, tripled, and quadrupled, but this time in overlapping fashion, lending a sparkling and kaleidoscopic quality to the sequence, punctuated by the dreamy Maurice Jarre score (and a complete absence of road sounds). Seeing the film now, through a filter of almost fifty-five years of subsequent automobility, the sequence is reminiscent of the later cautionary tale of automobility: *Koyaanisqatsi* (Godfrey Reggio, 1982), where the kaleidoscopic layering of lanes of traffic is suffocating – literally to the earth itself. But at the time, this sequence was probably the closest to the actual driving experience of the spectators and the blissful dream of automobility in the 1960s that preceded Nader. Here we see the pastoral drive through a countryside transformed magically by the act of driving. For Montand, driving becomes a time for reverie and reflection. His love of driving becomes virtually fused with his growing love for Eva Marie Saint, with a close up of her face superimposed in ghostly fashion over giant stretches of this racing sequence. Ultimately, this sequence also serves as a cautionary tale informed by the new rules of automobility as prescribed by Ralph Nader in *Unsafe at Any Speed*, as it is the first time we see Montand losing focus. From here, his mind becomes less occupied with racing and the road in front of him, and more focused instead on his love interest. This lack of focus will eventually lead to him not only losing the championship, but his own life.

When the fatal crash comes, as we know it inevitably must in the final act, it is exactly as Nader described. The machine is at fault, not the driver. The stakes are as high as you can imagine: love, redemption, virility. In the final race, the world of racing is no longer flat. Instead the road is beveled, with the vehicles racing on it often appearing to be angles of 45 degrees or more. Speed and inertia are certainly the only possible reasons for these cars performing such gravity-defying feats. During the race, we get testimonials from each of the drivers in voiceover speaking to the difficulty of this particular track, how none of them like it. For the first time in

the film we get an all new virtuoso camera move from the car mount, pivoting from a profile shot of the driver to a POV of the road behind the wheel (and vice versa).

At the beginning of the final reel, we get our final crash, leading to the death of Driver-Car-Star, Yves Montand. Again, it is a chain of events starting with a Nader-esque event, as the tailpipe from one of the cars ahead breaks off and is sent spinning into the road behind. Montand's Ferrari runs over the pipe, and swerves. Here the camera is mounted to his car, so suddenly the Traveler-Spectator, too, is sliding across the road at a 90-degree angle to the direction we were going just seconds before. Another camera captures the Ferrari rocketing over the edge of the steep embankment, ejecting its driver into the air. When the car hits the road below it explodes into a ball of flames on contact. We next see Montand, suspended in a nearby tree, helmet and goggles now gone, unconscious or dead. The rest of the cars speed through the smoke and flames of the accident scene as Montand's body is carried off by workers.<sup>503</sup> We see now: he's alive. But for how long? Now the race shifts into a kind of slow motion – albeit photographed in real time – as a jeep slowly pushes its way through a gathering crowd, cross-cut with tracking shots of the two blonde women in Montand's life (wife, Genevieve Page, and lover, Eva Marie Saint) as they push through the crowd to go to him. Saint is the one who ultimately reaches Montand's bleeding, crumpled body as Page watches helplessly. But only the wife is allowed into the ambulance with him, leaving Saint only able to watch as the ambulance drives away as she is quickly overwhelmed by a swarm of reporters. "Is this what you want?! Is this what you want?! Is this what you want?!" Saint yells over and over, waving her bloodied hands at the reporters with cameras crowding in on her, in perhaps the most chilling, and human, moment of the film. She is, of course, also addressing us, the audience of the film, who are just as surely there to see the crashes as real life audience in the stands of the races portrayed in *Grand Prix*. Although she never makes eye contact with the camera, and there is no direct address to the audience, as there is with Kevin McCarthy's famous warning for mankind in the

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<sup>503</sup> Another echo, or even retreat of crash events in Howard Hawks' 1932 film, *The Crowd Roars*.



infamous original ending of *Invasion of the Body Snatchers* (Don Siegel, 1956), the warning serves the same purpose.

### **THE FACE OF SPEED: FASTER THAN A SPEEDING *BULLITT***

Seeking to set a new standard for realism in racing pictures, Frankenheimer ended up creating an all new standard for the portrayal of automobility in the cinema. Suddenly, realism was in; rear-projection was out. It would take a few years for the standard to completely take over, but the release of *Bullitt* (Peter Yates, 1968) would help cement it. Produced by the film's star, Steve McQueen, arguably the face of speed in the 1960s and 70s, *Bullitt* contains what continues to be considered by most film critics as *the* definitive car chase scene, making the film also one of the defining films of modern automobility of the late 20<sup>th</sup> century. Interestingly, the famous chase sequence for which the film is best known lasts barely more than ten minutes of screen time, just past the halfway mark of the film. But much of the film revolves around automobility, starting with the escape of Johnny Ross (Pat Renella) in the opening/credit sequence of the film, that sets up the jazz-infused noir world of the late 1960s and the slender plot, driving directly into the gunfire of the mobsters he is seeking to escape in Chicago. We pick up his journey, now in San Francisco from a camera positioned on top of a building zooming slowly down into the traffic below. From there, much of the narrative of the film flows very literally with traffic, as we meet our characters getting in and out of cars, accompanying them in real time and – with no rear-projection – through the vibrant Technicolor streets of 1968. There are echoes of Alfred Hitchcock's equally famous *Vertigo* (1959), as we drive by many of the same locations we saw in that film during the extended sequences we accompany James Stewart's Scottie Ferguson on his compulsive tours of the city which effectively presented the city literally one generation removed from reality via the rear-projection's screen within a screen.

Like James Garner (and John Paul Stapp before him), Steve McQueen insisted on doing most of his own stunts.<sup>504</sup> In *Bullitt*, even more than *Grand Prix*, we have a Driver-Car-Star in the lead role, as the 1968 Ford Mustang Fastback, provided by Ford as part of a promotional agreement, features in the film almost as prevalently as McQueen himself and remains just as famous, selling at auction earlier this year at for a record-breaking 3.7 million dollars.<sup>505</sup> Like *Grand Prix*, *Bullitt*'s director, Peter Yates, called for driving sequences to be shot in real time and at real speeds, ranging from 75-124 miles per hour. Filming for the chase sequence alone took three weeks. But the credit for the success of the film and especially this sequence is typically given to the film's editor, Frank P. Keller, who won an Oscar for it. Cinematographer William Fraker credits the film's success to the portable Aeroflex 2C camera used to shoot inside the cars (a camera made famous by its use by the military during World War II) along with the suction cup vehicle mount which they used to attach the light-bodied camera to a bar across the back seat, giving spectators the then rare sensation of actually traveling with the driver. "It took people off the streets and brought them into the cars," Straker described in a 2003 interview.<sup>506</sup> Stuntman Loren Janes echoed this sentiment, but gives credit to director Peter Yates: "Most of the scenes you see from inside the car were shot by a cameraman or camera tied back into the car. That was director Peter Yates' genius on the film. He put the movie-goer in the car, and it all felt real and exciting."<sup>507</sup>

As with *Grand Prix*, there was a 10-minute promotional film made to promote *Bullitt* (which now appears as a bonus feature on the DVD, also cleaned up and remastered). Titled,

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<sup>504</sup> The most dangerous stunts in the film were handled by the film's stunt coordinator, Carey Loftin (who also did some of the stunts in *Grand Prix*), Bud Ekins, McQueen's usual stunt driver, Loren James, and Bill Hickman, who played the 'bad guy' driving the Dodge Charger in the famous chase scene, who was a close friend of James Dean, and pulled him out of his wrecked Porsche on the day he died. For more details, see Marc Myers, "Chasing the Ghosts of 'Bullitt,'" *The Wall Street Journal* (January 26, 2011) and Mike Magda, "Dangerous Pursuit: The Real Truth behind the 'Bullitt' Chase Scene," *Motor Trend* (June 20, 2005). <https://www.motortrend.com/news/bullitt/>. Both retrieved May 15, 2020.

<sup>505</sup> Peter Valdes-Dapena, "\$3.7 million: Ford Mustang Driven in the Movie 'Bullitt' Sells for Record Price," CNN (January 10, 2020). <https://www.cnn.com/2020/01/10/cars/bullitt-mustang-auction-record-price/index.html>. Accessed May 15, 2020.

<sup>506</sup> Peter Hartlaub, "Cut to the Chase / Classic Scene in McQueen's 'Bullitt' Unreal as Ever," SFGate (October 26, 2003). <https://www.sfgate.com/movies/article/CUT-TO-THE-CHASE-Classic-scene-in-McQueen-s-2580656.php>. Accessed May 15, 2020.

<sup>507</sup> Mark Myers, "The Secret of Steve McQueen's Bullitt Chase Scene," *Jalopnik* (January 27, 2011). <https://jalopnik.com/the-secret-of-steve-mcqueens-bullitt-chase-scene-5744523>. Accessed May 15, 2020.

*Bullitt: Steve McQueen's Commitment to Reality* (Ronald Saland, 1968), the short film starts with McQueen himself in voiceover telling viewers that preparation for the film started at Cotati Speedway in San Francisco so the team would be “used to working together at high speeds,” as we are treated to scenes of McQueen in the Ford Mustang Fastback racing Bill Hickman, the stuntman who plays the ‘bad guy’ driving the Dodge Charger, also seen here. Most of this footage is shot from either car-mounted cameras or handheld in the Mustang with McQueen, giving audiences a taste of the realism they can expect in the feature film. The culmination of this section is a dramatic three-shot sequence where we see McQueen slam on the brakes, whipping the car around in a rapid 180 degree turn – starting with a shot from the side of the track, cutting to the hand-held interior shot as the car is in mid-swing, then back to the shot by the side of the track as it finishes its turn – all as the narrator of the film calmly tells us: “Steve McQueen works by instinct, reflex, unconsciously concealed know how; above all it’s his reverence to authenticity. This is the story of his commitment to truth.” Of course there are a number of *untruths* in the film, many of which centered on the cars themselves; facts revealed only years later, like the fact that the Mustang and Charger in the film were heavily modified to perform the grueling stunts demanded of them in the film: bigger engines, heavier chassis, race car shocks, skid bars and special overinflated tires; not to mention the fact there were actually two or three almost identical copies of each car in the film (depending on which source you believe).<sup>508</sup> If you watch the film enough times you will discover even more untruths, like a certain Volkswagen that appears repeatedly, or the fact that the Challenger loses at least five hubcaps (and possibly as many as eight, according to some critics). So the reality of the sequence is certainly not in the details. It is, however, largely in the speed, and the almost complete absence of rear-projection – following the lead of *Grand Prix*, just two years earlier.

The infamous chase sequence starts benignly enough sixty-seven minutes into the film, with McQueen realizing he is being followed. Very quickly the roles shift and the killers are

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<sup>508</sup> Most sources claim there were two copies of each car, but the 2011 piece on *Jalopnik* featuring an interview with Loren Janes, one of the stuntmen on the film, claimed there were three: Mark Myers, “The Secret of Steve McQueen’s Bullitt Chase Scene,” *Jalopnik* (January 27, 2011). <https://jalopnik.com/the-secret-of-steve-mcqueens-bullitt-chase-scene-5744523>. Accessed May 15, 2020.

suddenly being pursued by McQueen – a fact revealed dramatically in the slender rearview mirror, which grows and is flattened with a quick zoom as McQueen’s Mustang fills the frame within a frame. This virtuoso shot simultaneously captures the downward movement of the Charger, pointing down the hill as the Mustang crests the hill and pops into frame. A few seconds later, with the sudden zoom, the shot is transformed into a real-life, real-time split-screen sans effects, simultaneously calling to mind the multiscreen maelstrom of *Grand Prix* and the rear-projection standard that preceded both of these films. Here, the mirror becomes a second screen in a vertical triptych; the Mustang is a bit blurry because of the shot or because of the heat of the sun and the street, while the hilly San Francisco street is split in two; we see a steady scroll of pavement at the bottom third of the screen, and the stream of houses and buildings in Fisherman’s Wharf neighborhood in the top third. The ‘chase’ begins at a relatively slow speed, with the occupants of both cars carefully checking their mirrors, looking both ways before crossing at intersections with stop signs or stop signals, all as the jazzy soundtrack of Lalo Schifrin builds the steady suspense. But just after the two-minute mark of the sequence we get a close up shot of Hickman (here doing double-duty as heavy and stuntman) fastening the lap belt behind the wheel<sup>509</sup>, then the sound of squealing tires as the Charger shoots away from the intersection, leaving both McQueen and the Schifrin score behind. The sequence is a direct nod to Nader and the new world drivers have inherited after the publication of his book, where even a criminal pauses to put on his lap belt before throwing it into high gear. The rest of the sequence unfolds in a soundscape of pure realism, scored predominantly by the sounds of screeching tires, the roaring motors of the muscle cars and the dramatic *whump* of impact as the cars hit the road each time they zoom over a hilly crest. Much of the sequence is shot from within the cars, again giving the viewer a visceral rollercoaster-like experience that in 1968 viewers had really only experienced in theaters with *Grand Prix* and *This Is Cinerama*. The sequence gives us a high-speed tour of San Francisco before taking us into hills outside the city

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<sup>509</sup> Purportedly, this was the only shot in the entire film done in the studio after principal photography.

where the sequence reaches a fiery conclusion after McQueen sends the Charger headlong into a gas station where it explodes. The final shot of the sequence features the melting figures of our two baddies trapped in the burning, upside down car.

While *Grand Prix* set the standard for television coverage of auto racing for decades to follow, *Bullitt* single-handedly set a new standard for everyday automobility in narrative films. These characters were not expert drivers, but something closer to human; flawed, working class, emotionally unavailable. As antihero, McQueen provided a stand-in for the standard everyman in this period, even if it was within the limited career paths of an antihero as leading man: cop, con man, ex-con, detective, racecar driver, bank robber, rodeo rider, or prisoner of war.

### **SLOWER THAN SLOW: *BONNIE AND CLYDE***

The one element of modern crash sequences conspicuously missing in these films, perhaps because of their insistence on realism, is the incorporation of slow motion. Although slow motion photography had existed since almost the beginning of the cinema, it only becomes aligned with automobility thanks to the pioneering crash test research films of John Severy, John Paul Stapp and Hugh DeHaven in the 1950s, and the driver's education films that soon followed like *Safety Through Seat Belts* and *Safety Belt for Susie*.

The first narrative/feature film to combine slow motion, automobility and violence doesn't actually feature a car crash, but an automobile that is ultimately torn apart (along with its occupants) by a barrage of bullets. The famous sequence is the climax and culmination of a film whose narrative is propelled quite literally by automobility: Arthur Penn's now classic 1967 film, *Bonnie and Clyde*. The climactic sequence at the end of the film is one of the most discussed in the history of film studies – the slow motion, balletic dance of death of the star-crossed, spree-killing couple, played famously by Warren Beatty and Faye Dunaway, brought down by a barrage of machine gun bullets. The fifty-one shot sequence runs just fifty-four seconds on screen, and was captured on four cameras running at different speeds. Taking up

less than one minute of screentime, the far-reaching effects on filmgoers and indeed film history only be compared to the infamous shower sequence in *Psycho* (Alfred Hitchcock, 1960). As Stephen Prince points out in one of the earliest works of film theory focusing on screen violence, “Penn was the first American filmmaker to conjoin multicamera filming, montage editing, and slow motion systematically in the visualization of screen violence.”<sup>510</sup>

This sequence is recognized by most film scholars and historians as the root of modern cinematic violence. Both panned and praised by critics and audiences upon its release, Penn insisted in interviews at the time that the film was meant to be a critique of the mindless daily violence of the 1960 in America taking the form of urban riots, campus protests, recurrent political assassinations, and by American troops in Vietnam. As Prince points out in his article, coincident with nationwide anti-war and civil rights protests, “the national rates of violent crimes rose significantly during the decade. Steep increases in homicide, rape, aggravated result and robbery fed a sharp public fear of street crime and a perception that a wave of violence was sweeping over American society.”<sup>511</sup>

What has never been discussed in a critical setting, but which is of course of particular importance to this dissertation is Penn’s initial inspiration for the use of slow motion in this sequence, which he revealed in a 1989 interview with NPR: “The intention there was to get this kind of spastic motion of genuine violence, and at the same time, the attenuation of time that one experiences when you see something, like a terrible car accident.”<sup>512</sup> This is a fascinating revelation that effectively locates the origin of modern cinematic violence in the form of the car crash itself. There are two important details in this revealing quote to break down here. First of all, Penn is describing the act of *seeing* the car accident as the inspiration – as opposed to being *inside* a car during an accident. To Penn, the famous slow motion scene in *Bonnie and Clyde* is

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<sup>510</sup> Stephen Prince, “The Hemorrhaging of American Cinema: *Bonnie and Clyde*’s Legacy of Cinematic Violence,” *Arthur Penn’s Bonnie and Clyde*, Ed. Lester D. Friedman (Cambridge: Cambridge University Press, 2000), 135.

<sup>511</sup> Prince, “The Hemorrhaging of American Cinema,” 129.

<sup>512</sup> Arthur Penn and Terry Gross, “Arthur Penn, Realistic Violence in ‘Bonnie and Clyde’,” *Fresh Air*, interview by Terry Gross, hosted by David B. Cooley, National Public Radio, March 28, 2008. <https://www.npr.org/templates/story/story.php?storyId=89164831> [Interview first aired September 29, 1989.]. Accessed May 10, 2020.

like a car accident seen from the outside, as a spectator. The second detail to call attention to here is Penn's description of what seeing a car accident does – it's alteration, or to use Penn's words, 'it's "attenuation of time" – which by definition indicates a 'diminution of thickness.'<sup>513</sup> In the famous fifty-four second sequence in *Bonnie and Clyde*, time seems to speed up and slow down, because of the way the slow motion footage is interwoven with what was shot in real-time. Of course in the critical history of the film, that sequence seems to stretch out far longer than fifty-four seconds. For many film historians and theorists that sequence has been the singular focus of the critical lens. Indeed, that sequence is arguably the largest singular innovation that the film offers to the cinema, forever altering the cinematic portrayal of violence afterwards. As Prince describes:

In the graphic gore with which the film concludes, *Bonnie and Clyde* demonstrates the techniques by which screen violence can be turned into an exciting spectacle that is self-enclosed and detachable from the narrative. The technical components of Penn's scene – multicameras, montage editing, slow motion, and exploding bloodbags – have become the essential means for transforming movie violence into a visual spectacle that is both charged and appealing.<sup>514</sup>

Just as Stapp, Severy and DeHaven had utilized high-speed photography to capture hitherto unseen *truths* in the car crash, now so too would narrative filmmakers around the globe train their own high-speed cameras on accidents of their own making, every bit as scripted, and at least as revealing of the human condition, regarding the effects of automobility and the crash on the both the human body and soul. So too, are they guilty of some of the same conceits. In the case of crash test researchers, it was a dream of ultimate control and decisive knowledge. Greg Siegel describes the goals of Severy's slow motion experiments at UCLA:

ITTE engineers, too, were restricted by bodily impotencies and incapacities brought on by the destructive split second: their eyes beheld it only blurrily; their minds remembered it only impressionistically. In a bid to overcome these mortal deficiencies, they relied on the overcranked camera and its complement, the optical comparator, to render the instant of impact legible and intelligible, riding the current of a cultural desire for the scientifically knowable, institutionally controllable accident. The strategic photographic seizing, slicing up, and slowing

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<sup>513</sup> *Merriam-Webster Dictionary*, <https://www.merriam-webster.com/dictionary/attenuation>

<sup>514</sup> Stephen Prince, "The Hemorrhaging of American Cinema," 143.

down of the collisional process encouraged the notion that even its most complicated riddles, whether physical in nature or physiological, were capable of being deciphered.<sup>515</sup>

With narrative films, the use of slow-motion eventually becomes the measure of the truth of the crash as well; a new measure of realism, that would prove eventually prove ubiquitous by the 1980s, and has since served as one of the most common tropes in representing the car crash. However, in the late 1960s it was barely used, and only sparingly by the early 1970s.

### **BETWEEN QUEST AND QUESTIONING: *MEDIUM COOL***

*Medium Cool*, Haskell Wexler's 1969 directorial feature debut, is bookended by two crashes experienced by the same man, illustrating the awakening of culture with regards to the car crash after the publication of *Unsafe at Any Speed*. The man involved in both crashes is television cameraman John Cassellis (played by a young Robert Forster). When we meet him, he is a cynical television cameraman; progressive, with an interest in civil rights and telling the story of the underdog and the under-represented, but just as certainly exploitative, fully aware of what elements in these situations make for good television stories.

Shot in a *cinéma vérité*-style, the film is best known for capturing the real-life violence revolving around the 1968 Democratic Convention in Chicago. But as Jay Beck points out in his book, *Designing Sound: Audiovisual Aesthetics in 1970s American Cinema*, "*Medium Cool* places itself in the rubric of *cinéma vérité* only to disassemble and question the truth value of film itself."<sup>516</sup> Indeed, the film blurs fact and fiction throughout. As Roger Ebert described in his 1969 review: "There are fictional characters in real situations...there are real characters in fictional situations. The mistake would be to separate the real things from the fictional. They are all significant in exactly the same way."<sup>517</sup> In the film Chicago represents the entire country in

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<sup>515</sup> Greg Siegel, "The Accident Is Uncontainable/The Accident Must Be Contained," 367.

<sup>516</sup> Jay Beck, *Designing Sound: Audiovisual Aesthetics in 1970s American Cinema* (New Brunswick, NJ: Rutgers University Press, 2016), 44.

<sup>517</sup> Roger Ebert, "Medium Cool," *Chicago Sun-Times* (September 21, 1969). <https://tinyurl.com/y2le9z3y>. Accessed May 19, 2020.



miniature; a city, like the entire country (then as now) divided by issues of race, gender, economics and the government. As Vincent Canby described in his 1969 review: “The result is a film of tremendous visual impact, a kind of cinematic *Guernica*, a picture of America in the process of exploding into fragmented bits of hostility, suspicion, fear and violence.”<sup>518</sup> Although it is never addressed as such, using the image of the car crash through two different sets of lenses to open and close the film, illustrates the politicization of the crash in the post-Nader world.

The film starts with the loud and steady drone of a car horn blasting over a black screen. The words “Chicago 1968” appear, typed out letter by letter, in white, setting both the time frame and the tone – the reality of a journalist, typing out the facts for us, his audience. Our first image is either slightly out of focus, suggesting something amateur or newsworthy, or slightly soft in focus, suggesting something more romantic, idealized; rose-colored glasses on reality. Either way the view doesn’t last long of these two characters approaching the camera, lugging a movie camera and soundgear which we don’t see clearly until the next shot. The camera pulls focus and our POV alters dramatically in just seconds, from rose-colored glasses to the spider-webbed crack on the windshield we have been looking through the whole time. Clearly this was a violent impact. The insistence of the blaring horn tells us it was recent. In the second shot, we are now looking through the driver’s side window past dangling, unfastened seat belts and through agape the passenger side door at the pair of men – television cameraman John Casselli (Robert Forster) and his soundman Gus (Peter Bonerz). While Casselli trains his camera on something on the ground we cannot yet see, Gus pulls the plug on the horn under the hood, sending the scene into near silence other than the steady hum of nearby traffic and what we will soon discover are the quiet moans of the accident victim. Our third shot finally gives us a wide perspective on the scene: a gray four-door sedan has crashed into a sign under an overpass. The trunk is partly open, the rear of the car looks slightly smashed in, possibly by the now crushed wooden frame that once held the now mangled black and orange sign with an arrow on it. We

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<sup>518</sup> Vincent Canby, “Real Events of ’68 Seen in ‘Medium Cool,’” *The New York Times* (August 28, 1969). <https://tinyurl.com/y4o8p9yt>. Accessed May 19, 2020.

barely notice the body on the ground. But it is the first thing we see in the next shot: a young woman, legs still extended into the car. It could easily be a reconstruction of one of Warhol's accident photos, or one of Godard's Warholian car crash tableaux from *Pierrot Le Fou* (1965) or *Weekend* (1967). Our television crew, too, are just as surely from that world, hovering over the two bodies of woman and car, sure to get artful coverage of both. They don't say a word to each other, or the poor woman on the ground. Once they've got their coverage, it is time to move on, pack the gear in the back of the car, and only then do we get our first line of dialogue, almost as an afterthought: "Better call an ambulance." When they close the back of the white station wagon we see it is emblazoned with the logo: "WHJP TV 8 Chicago."

It is a cynical and clinical opening. These are dispassionate men and we immediately view them as such, engaging our own cynicism, already activating a distance between us and them. Here is the car crash engaged as pure spectacle, an event both banal and newsworthy. The woman involved, important only as pure image, no more and no less important than the mangled body of the car. The Driver-Car here is, in essence, still fused as one unit, even with the driver half-in, half-out of the car, half-on, half-off the hard, cold pavement.

Fast-forward to the last two minutes of the film and we see the car crash cycle repeat – only this time from an insider's point-of-view, with our cameraman (Forster) now behind the wheel, and the woman he is beginning to fall in love with (Eileen, played by Verna Bloom in her film debut), in the passenger seat. Her mind is on her son, missing since the night before; his mind is on her, and often his eyes, straying from the road to study her face. The sequence opens with a close up of the car's radio antenna as blue sky and trees race by in a blur behind it as we hear the announcer incredulously describing a scene from outside the 1968 Democratic Convention where police are trying to keep a man contained "I guess so they can beat him up later or something." "The policemen are grabbing and beating everyone in sight," another reporter agrees. So we know these are voices from the Left; or at least positioning themselves as anti-government, anti-authoritarian, in an effort to say, in effect, 'we are one of you.' Eileen

listens, concerned that her boy is still stuck somewhere in the ebb and tide of violence, or has perhaps already been carried away in it. Our shot of the antenna gives way almost invisibly to a shot of Eileen through the windshield, her face only caught in glimpses, as the surface of the windshield is more often reflective of the blur of grey blue skies and green trees overhead than transparent, and allowing us a clear vantage point of the passengers inside the vehicle. The editing here functions almost invisibly as well, often cutting on the blinding pure white of reflection as we cut back and forth between close-ups of John and Eileen behind the highly reflective glass. The soundtrack of violence gives a tense edge to the sequence on a number of levels – the tenseness of a mother, worried her son has been caught up or carried away in it; the tenseness of these two progressive people who we already know are affected by these things (for her, on an emotional level, for him, on a creative level, as, arguably, he feeds on this sort of energy). There is also a layer of spectatorial uneasiness, as we are not sure if what we are seeing is real or scripted; certainly we are aware this very well could be a real radio broadcast about real people who were being hurt at the time of the convention -- at least, until a very strange thing happens.

As we dissolve to a wide shot for the first time of their car approaching in the distance, a different report breaks in on the soundtrack telling us: “The victim was former Channel 8 cameraman John Cassellis. Cassellis was taken to Michael Reese Hospital where he is reported to be in critical condition. Cause of the accident is under investigation. A woman companion, not yet identified, was dead on arrival.” Following this radio broadcast seemingly from the future we are returned to news coverage of the violence at the convention: “People were being clubbed and I mean in Technicolor and in 3-D – and people were crying and screaming.” It happens so fast and without warning, the sonic blip from the future almost plays like an accident itself – on the part of the filmmaker, here breaking one of the fundamental rules of storytelling: never telegraph the shock ending. But that’s exactly what Wexler is doing here, even if the audience

finds it hard to process. The moment borders on the Brechtian; a reminder that there are bits of fiction running throughout the film, even if you can't tell what is real and what is fiction.

Now we get a slow zoom on Eileen again through the windshield, superimposed with trees and the white of overcast sky reflected overhead. Again the whiteness gives way to another shot of him, closer now, as he studies her face. Back and forth, Wexler alternates between these close and closer shots, the white glare almost overwhelming, dominating screentime in this sequence. Then suddenly, we hear the sound of a blowout. We don't see a reason or a cause; it is exactly as Nader described: the failure of the machine; in a moment; without warning.

In what is the most stylized sequence in the film – and decidedly *not* cinéma vérité – we experience a highly stylized car crash in montage. The first handheld shot of the sequence is trained on Forster as the world seems to start turning over. Then we get a quick cut from outside of the car of the landscape itself turning. After a second of black, we are back inside the car, again handheld, but closer on his torso now as the car spins. We see a quick shot of a tree the car is heading towards, a split-second of her turning in close-up, then black punctuated by her screams. What follows is even more fragmented. A split second of handheld camera spinning. More black. A close-up of the spiderwebbed windshield – which could easily be the shot we saw in the opening sequence. Then even quicker cutting, repeating the sequence *twice*: black, tree getting closer, spiderwebbed windshield. Like *Bonnie and Clyde*, the most violent and most stylized scene in *Medium Cool* takes place in just a few seconds. While there is no slow motion (yet), the cutting is hyperstylized, and so is the version of reality we get here – making the sequence even more unsettling after the entire film has been so resolutely hyper-realistic. The continuous sound of the announcer's live report on the radio operates in the same manner as the sound of bullets in *Bonnie and Clyde* – an anchor to realism and real time up until now.<sup>519</sup> But

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<sup>519</sup> In the famous concluding scene of *Bonnie and Clyde*, while there is a continual shifting of time visually, the sound of bullets plays out in real time. As Penn himself describes it, it is a “visual expansion of time, and an auditory continuum of time.” (Arthur Penn, Terry Gross, et al., “Arthur Penn, Realistic Violence in ‘Bonnie and Clyde’.”) This of course is a radically different conception of “bullet time” than the notion that was introduced three decades later in *The Matrix* (Lily and Lana Wachowski, 1999). In that film the time associated with bullets is magical, otherworldly, dislocated from the world from which they were initially fired in both sound and vision. In *Bonnie and Clyde*, however, the sound of the bullets is the indexicality of reality; not only the ‘real world’ of the diegetic, but the very real world of violence and the vulnerability of skin. Penn was not the first to use this technique. Credit for that

suddenly there is an ellipsis in sound as well, as the radio broadcast is put on pause for the eight seconds it takes the crash to play out on screen. When the sequence ends with a cut to black for several seconds, our news report from the convention resumes.

Now we get our first and only slow motion shot in the entire film, as the camera slowly pans to follow the path of a beat up tan Chevy station wagon as it passes by, steadily zooming in on its occupants — a father and his five boys, all staring out the window as they pass the wreck. As the inexorable zoomed in pan continues, the wrecked car fills the frame for several seconds. When the passing station wagon emerges on the other side, it appears to materialize from the windshield of the wrecked car. In the passing station wagon we see the father/driver is now leaning out his window to look back out at the wreck, as one of his sons in the backseat leans out the window to snap a photo of the wreck. On the soundtrack we hear the camera loudly *CLICK* providing terminal punctuation for the radio announcer: “Police have just grabbed somebody — are beating him over the head — the whole crowd across the street is yelling ‘sieg heil’.”

The film cuts again to a wide shot as the camera moves away from the wreck, now on fire in the distance. The radio announcer continues: “Another melee is taking place in the park. Right in front of the nation. Right in front of the entire nation.” Then the sound of the crowd, which has been in the background takes over, moving to the front of the mix as a chant begins: “The whole world is watching. The whole world is watching. The whole world is watching...” As the car grows smaller in the distance, we realize we are actually zooming out...back to a fixed point up the road. The camera then pans to the right revealing a cameraman — played by Wexler himself — on a platform running a giant camera on a wooden tripod. He starts to pan his camera towards us, as we once again zoom in on him and his camera, staring back at us. The zoom

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goes to Akira Kurosawa and an almost equally famous slow-motion sequence from his 1954 film *The Seven Samurai*. The two-minute sequence opens with the leader of the samurai, Kambei (Takashi Shimura) killing a thief who had kidnapped a child. When the crazed thief emerges, bloodied, from his hut, Kurosawa intercuts slow motion footage of his death with reaction shots of the various villagers at normal speed, effectively causing the scene to oscillate between two radically different temporal modes. The only sound missing from the sequence is the sound of impact when the thief hits the ground. Otherwise we are hearing the sound of the kidnapper’s surrounding environment — the baby’s cry, the mother’s scream, her footsteps as she runs to reclaim her baby, the clang of the sword as it hits the ground, and the unsettling wind blowing all around. As Stephen Prince describes: “Amplified, but temporally unmodified, sound accompanies the slow-motion images, and this disjunction emphasizes the heightened artifice of these images, their uniquely expressive power.” (Steven Prince, *Savage Cinema: Sam Peckinpah and the Rise of Ultraviolent Movies* (Austin: University of Texas Press, 1999), 54.)

continues into the large square hood covering the lens of the camera, which looks more than a little like a screen itself; a television screen. The look on the cameraman's face is nonplussed, not surprised by what he's seen or the fact we are watching. In fact, he doesn't even blink. This is the last thing we notice as we zoom into the blackness of his lens. Even as the chant continues, over and over: "The whole world is watching. The whole world is watching..."

The closing sequence operates as a call to action; or perhaps, more accurately, a *dare*. Once again the audience is confronted with a crash, this time photographed by two dispassionate observers – the first, just a child, an amateur snapping a shot of the action like any tourist before driving away; the second, a professional cameraman like Forster himself, photographing the crash from a safe distance. Like the boy tourist, the television cameraman is easily distracted, turning his camera on the next attraction that comes along: *us*. We stare back, until we, too are drawn into the abyss. So the film reflects back on itself, asking us to ask ourselves: Have we changed by the end of the film? Certainly Wexler is hoping so. Echoing Nader's call to action, this film is challenging us to look at crashes differently. Although never addressed as such, the issue of the car crash is just as surely politicized as the more obvious critiques of race, politics and economics we see framed in between the two crashes of Forster's character. In the beginning, it is what initiates the debate that follows in the second sequence, where the question is posed: *What are the responsibilities of an observer?* Whether you are a reporter, or passerby; what will it take you to act? To get involved? At the end, when Forster is himself involved in a crash – clearly a "car *accident*" (as we see he is not responsible) we are reminded by the soundtrack that now "the whole world is watching". By 1969, this was true, thanks to Ralph Nader.

## **MACHINE WESTERN: *EASY RIDER* AND *RAGING ON THE ROADS***

By the time *Easy Rider* was released in 1969, the equation of the motorcycle and counter-culture had been established for nearly two decades.<sup>520</sup> Counter-culture was hip, commodified, and as *Easy Rider* proved, translated to big box office. Even if most twenty-somethings weren't ready to give up their jobs, hit the road, or go live on a commune, they would eagerly flock to the theater to see a film about characters doing just that. In *Easy Rider*, we meet two rebels without a gang: Billy (Dennis Hopper) and Wyatt aka Captain American (Peter Fonda).<sup>521</sup> The motorcycles they ride, giving them unique access to the landscape of America in the late 1960s, are perhaps their greatest expression of rebellion against American values in the 1960s – the rebellion against automobility. Long-aligned with counterculture, the motorcycle was seen as the ultimate form of freedom; something that simultaneously brought its rider closer to the road and transience, and further away from society and its demands.

The poetics of the motorcycle are of course radically different than the automobile, with its distinct nest for an interior and shell for an exterior. In this sense, the motorcycle and its rider are more similar to the configuration of the horse and rider.<sup>522</sup> In both cases the bodies of vehicle and rider are almost intertwined, and more closely connected to the road. With no nest,

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<sup>520</sup> In the decades that followed the release of *The Wild One* (Laslo Benedek, 1953), the pairing of motorcycles and rebellion was subsequently combined with drug experimentation and rock and roll in the 1960s thanks to a seemingly endless series of movies produced by Roger Corman at AIP (American International Pictures): *Wild Angels* (Roger Corman, 1966), *The Glory Stompers* (Anthony M. Lanza, 1967), *Hell's Angels on Wheels* (Richard Rush, 1967), *Devil's Angels* (Daniel Haller, 1967), *Born Losers* (Tom Laughlin, 1967) and *The Trip* (1967). Many of these films starred Peter Fonda, Dennis Hopper or Jack Nicholson, so as cutting edge as the final form of *Easy Rider* may have appeared on screen, these actors were already equated with the biker genre, ensuring the film would easily make a profit.

<sup>521</sup> Since the film opens in the middle of a drug deal in Mexico and never gives us the back stories of Billy and Wyatt (just one of the many casualties that resulted when Hopper's original 4-hour was cut down to a more manageable 90 minutes in his absence), it is easy to assume they were rebelling even from the gang(s) they were in.

<sup>522</sup> Dennis Hopper admitted as much in an interview: "The movie was like a Western to me. I thought of 'Wyatt' as Wyatt Earp and I thought of 'Billy' as Billy The Kid. These two thrown together as partners." (Easy Rider: Shaking the Cage," Directed by Charles Kiselyak (1999), Bonus Feature, *Easy Rider*, Criterion Collection, 2016. Blu-Ray DVD.) The fact that Fonda's father played Wyatt Earp in John Ford's *My Darling Clementine*, was no coincidence, even if Peter Fonda didn't necessarily have his father in mind with his characterization. "For me it was a Western idiom that we were working with. Riding the motorcycles, I'm wearing spurs. I was The Duke [John Wayne] and Dennis was Wardo [Ward Bond] and we're going across John Ford's America." (Easy Rider: Shaking the Cage," Directed by Charles Kiselyak (1999), Bonus Feature, *Easy Rider*, Criterion Collection, 2016. Blu-Ray DVD.) Or, as he put it in a 1969 interview with French television at Cannes after the film's premiere: "It's a machine Western. A Western with motorcycles." ("Pour le Cinema," Directed by Pierre Mignot (French TV, 1969), Bonus Feature, *Easy Rider*, Criterion Collection, 2016. Blu-Ray DVD.) Fusing the angry youth on a motorcycle genre with the Western makes for a very mixed message, blending the mission statement of the counterculture, who wants to break with the past, with the doctrine of Western expansion embedded in the Western, which is a nostalgic vision of fictionalized past putting white males very much in the *saddle* (a term that biker culture perhaps not so coincidentally co-opted to describe the motorcycle seat). On screen this link is established early on, in the second day of their cross-country journey, when they stop at a ranch to fix the flat on Fonda's bike. The short sequence crosscuts between Fonda taking the wheel off of his chopper and the rancher putting a new horseshoe on his horse. Their ride through Monument Valley on the following day further concretizes the connection, the country-tinged soundtrack offering by The Band, "The Weight," helps connect past with present.

the riders are also far more vulnerable, and far less separated from the environments they are riding through (for better or worse). The only real sense of an interior on a motorcycle comes in the form of the gas tank. In *Easy Rider*, this is where the object of most value located – i.e. the money concealed in the stars-and-stripes teardrop gas tank of Fonda’s chopper. This fact complicates the oversimplified critiques offered by most of the film’s critics. The drug money is, in essence, wrapped within both the American flag and the gas tank – which is both the symbol of modern mobility and an explosive device that is an embodiment of the country which Captain America, son of Henry Fonda, is seated upon during his cross-country ride. When Barbara Klinger compares the film to nationalistic images of the frontier<sup>523</sup>, she fails to take into account that the characters, camera, and viewers are all fused with the explosive device that is barreling through these spaces. We are all Traveler-Spectators riding the bomb, which is simultaneously capitalism, corruption and counter-culture wrapped up in a fuel tank that looks like the American flag. Fonda’s enigmatic and oft-discussed line summarizing their journey/mission: “We blew it,” takes on explosive connotations in this very literal sense. Although Billy, Hopper’s character on screen didn’t see it, Hopper, as director behind the camera, certainly did. As Hopper described in an interview with Peter Biskind in *Easy Riders, Raging Bulls*, “When we were making the movie, we could feel the whole country burning up – Negroes, hippies, students. I meant to work this feeling into the symbols in the movie, like Captain America’s Great Chrome Bike – that beautiful machine covered with stars and stripes and all the money in the gas tank is America – and that any moment we can be shot off it – BOOM explosion – that’s the end.”<sup>524</sup> By citing this parallel Hopper’s quote recalls Alfred Hitchcock’s famous example of suspense in the form of the bomb under the seat of a bus that everyone in the movie theater

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<sup>523</sup> Klinger claims: “[...] Upon closer inspection, we can see that *Easy Rider* is not simply a counter-nationalistic film. To the contrary, it vividly crystallizes the tension between nationalism as a process evolving through time and nationalism as a thing already realized, a thing to be preserved from the assaults of history.” See Barbara Klinger, “The Road To Utopia: Landscaping the Nation in *Easy Rider*,” *The Road Movie Book*, 183.

<sup>524</sup> Peter Biskind, *Easy Riders, Raging Bulls: How the Sex-Drugs-and-Rock ‘N’ Roll Generation Saved Hollywood* (New York: Simon & Schuster, 1998), 74.



knows about while all the characters on screen are unaware,<sup>525</sup> only in *Easy Rider* it is the entire country that could explode at any minute. This certainly charges the road sequences with a different kind of intensity and suspense, which in turn charges the entire film, since fourteen of the forty-seven total scenes in the film are these musical/traveling sequences.

Original reviews of the film often used the word “travelogue” to describe the extended musical sequences which, alternately, either allowed viewers to “experience the vastness of America’s physical beauty,” or participate in “a nature study filmed on an opium trip.”<sup>526</sup> In more recent years, most critics have dismissed the riding/musical sequences as indulgent, or pure spectacle. *Time Out* film critic Keith Uhlich dismisses the film, “a film important to and influential in the flower-power late ‘60s, *Easy Rider* now seems like a narcissistic hodgepodge of travelogue and passion play,”<sup>527</sup> while Nicholas Godfrey claims “*Easy Rider* reduces the iconography of the western to a travelogue of visual pleasures, something to be glimpsed from a passing motorcycle.”<sup>528</sup> As Godfrey sees it,

The montage sequences function in a context that is sealed off from the narrative proper, conveying no more than movement. [...] Certainly the repeated camera movements along expanses of motorcycle chrome, accompanied by use of dynamic editing and nondiegetic rock music, telegraph the status of these sequences in visual spectacle. In this way the motorcycle montage sequences in *Easy Rider* approximate the textual qualities of the song and dance sequence in the Hollywood musical.<sup>529</sup>

While making a striking and apt comparison to the Hollywood musical, I would argue, however, this is an extreme oversimplification – akin to saying that a Busby Berkeley musical number is “conveying no more than movement.” When in fact, a lot is happening in these sequences, and the fact that they comprise almost over one-third of the film’s total running time is significant. The experience of motorcycle riding is central to the Traveler-Spectator’s experience of the film,

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<sup>525</sup> François Truffaut, *Hitchcock* (London: Paladin, 1978), 75-76.

<sup>526</sup> See Taylor Brode, *Films of the 1960s* (Seacaucus, NJ: Citadel Press, 1980), 20 and Rex Reed, “Review of *Easy Rider*,” *Big Screen, Little Screen* (New York: Macmillan, 1971), 233.

<sup>527</sup> Keith Uhlich, “Easy Rider,” *Time Out* (April 30, 2009). <https://www.timeout.com/us/film/easy-rider>. Accessed June 28, 2020.

<sup>528</sup> Nicholas Godfrey, *The Limits of Auteurism* (New Brunswick, NJ: Rutgers University Press, 2018), 35.

<sup>529</sup> Nicholas Godfrey, *The Limits of Auteurism*, 27.

making the common comparison to the travelogue fitting. But unlike the travelogue, which is about whisking the viewer away to a magical other place instantaneously, this film is more about mobility; the actual experience of *moving*. As Blasini describes it, “the film attempts to provide audiences with a vicarious enjoyment of the characters’ traveling experience [...] asking them to rediscover their nation cinematically.”<sup>530</sup> While mobility by motorcycle remains the focus of the film the sequences were captured by a camera mounted to a *car*, so the POV of automobility is also just as surely encoded into these sequences.

Unlike the cycle of road movies that would follow, focusing on cross-country trips in automobiles, in *Easy Rider* there is no visual way to be *in* the vehicle traveling with the characters. Instead, Lazlo Kovacs’ camera is constantly beside them, or in front of them (and only rarely behind them). So when we are shown a POV shot of the road, it is the POV of automobility, footage shot from the camera car, which only a couple years earlier would have ended up on a rear-projection screen in a studio with the actors positioned carefully in front of it. Comparing the road sequences in *Easy Rider* to *Bonnie and Clyde*, the other film credited for inspiring the modern road movie genre is striking. Made in 1967, *Bonnie and Clyde* uses rear-projection for every instance of travel except one. In essence, every time those characters get in the car the spectator is also back in Old Hollywood – back on a soundstage in a fake car in front of a process screen. In *Bonnie and Clyde*, the experience of automobility is an experience of artificiality very separate from the realism that the film is famous for; a purely cinematic conceit of characters play-acting in a pretend car in front of a rear-projection screen.<sup>531</sup>

In *Easy Rider* it is often the soundtrack that puts us in the same headspace as the characters as they ride. To the Traveler-Spectator, the rock songs act as the crucial lining of a nest that doesn’t actually exist on screen, activating in the young viewers who made up most of the audience, their own experiences on the road. The lack of ambient sound accompanying the

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<sup>530</sup> Gilberto Blasini, “Fasten Your Seatbelts [...]”, 90.

<sup>531</sup> Nowhere is the sense of claustrophobia more clear than when they cram no less than six characters in the car (when they pick up the undertaker and his fiancé, played by Gene Wilder and Evans Evans.)

rides, replaced instead with a series of classic rock hits, is something like taking a road trip with the windows up and the stereo blasting. The soundtrack, in effect, insulates the viewer from the more challenging aspects of the road trip inherent in a motorcycle journey: wind and noise. For the most part, the sound of the motorcycles serves only as a transitional element on the soundtrack, bringing us out of whatever song is blasting and the quieter dialogue scene that will inevitably follow. As such, the sound is often of the bikes throttling down, of a reduction of speed; the sound of coming down, and coming off the road; most often from pavement to rocks or gravel. Only in the final and fatal closing sequence are we allowed to hear the growl and purr of the motorcycles at any length.

The infamous pair of crashes that bring *Easy Rider* to a close are of course through no fault of the bikes' drivers or the bikes themselves, resulting instead from a pair of shotgun blasts delivered from the rednecks at random in their pick-up truck as it passes them on the highway. Again we have violence delivered by vehicle via slow motion, echoing in many ways the conclusion of *Bonnie and Clyde*. The final five-minute segment of the film begins as another rock-and-roll road montage as the sun begins to rise on another day, with our two anti-heroes moving on down the road to further adventures. Only the lyrics on the soundtrack hint at what is to come, The Byrds' title track, "The Ballad of Easy Rider": ".....to understand, you know too soon, there is no sense in trying. ....he not busy being born is busy dying."<sup>532</sup> For the Traveler-Spectator, the sequence is a return to the joys of the unique mobility offered by a motorcycle we have experienced throughout the film. Here, small town grunge gives way to nature once again in resplendent greens and a reflective river running parallel to the road. As the song fades out and the road sounds fade up the two riders rumble past the moving camera which pans to reframe the riders now ahead of us riding towards the vanishing point of the horizon. The scene suddenly cuts to a close up of two men in their 40s (David C. Billodeau, Johnny David), clearly untrained actors with thick Southern drawls, seen through the windshield of the beat-up pick-up

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<sup>532</sup> While the song is performed by The Byrds, the lyrics to "Ballad of Easy Rider," were actually penned by Bob Dylan -- who didn't want to receive credit, a fact that has only come out in recent years and is cited in the behind-the-scenes documentary that appears on the Criterion DVD.

truck they are driving. The man in the passenger seat grabs his shotgun, with a grin, advising his buddy at the wheel: “Pull up beside ‘em and we’ll scare the hell out of ‘em.” When they pull up next to Hopper’s motorcycle, the man in the passenger seat asks with a grin: “You want me to blow your brains out?” The driver laughs, but Hopper is neither amused nor alarmed, instead flipping the pair off calmly. The passenger then asks a second question: “Why don’t you get a haircut?” With no response from Hopper, the man pulls the trigger. On the blast of the shotgun, there is a cut to a slow motion shot of Hopper’s motorcycle’s skidding to the side and going down, sliding along the highway. The camera is moving ahead of the crash so we can’t see Hopper clearly (or the stuntman who is actually in the shot), but we see the body roll away from the bike, into the ditch by the side of the road.

Fonda races to Hopper’s side, and we see he is covered in blood, as if the shotgun blast caught him in the chest and neck. He gurgles when he talks: “I got ‘em...gonna get ‘em, man...” Fonda grabs his leather jacket off the back of his bike, sending his star-spangled helmet rolling into the ditch. He then covers Hopper with it so American flag on it is over his chest. Fonda announces he’s going for help, and tears off. We see the truck has turned around and is now heading straight for Fonda. When they meet, the man in the passenger seat points his shotgun out the driver’s side window and fires again. Again on the smoking blast there is a cut to another slow motion shot – this time of Fonda’s chopper being blasted into the air, breaking apart in mid-air (and no sign of Fonda’s body). Part of the bike careens into the field in dreamy slow motion, even as the sound of the destruction continues in real time. There is another cut as it explodes, and we get a quick glimpse of it on fire, with the American flag on the gas tank clearly displayed as the flames devour it in real time. The shot only lasts a split second, registering almost like a flash frame. On the second explosion, we get two more quick cuts, echoing the flash forward device that has been used throughout the film, only this time the device seems to help propel us into the air. The last shot is a helicopter shot of the flaming wreck on the roadside as the camera quickly pulls up into the sky, pulling away from the wreckage, until it is just a tiny speck of orange next to the

road that winds through a lush green countryside flanked by a river. The sound of the explosion also fades as the camera quickly pulls away from the wreck...absorbed in the sound of wind blowing from far overhead. The credits roll solemnly and the soundtrack resumes...

This sudden jolt of drive-by violence remains a shock to viewers. This is a crash caused by human hands; inflicted by one pair of humans on another pair, guilty of nothing more than being on the road and *not* being in automobiles. What starts in close up is quickly just a tiny dot of orange on screen, and then not on screen at all, as nature reclaims the entire frame, the endless sea of green trees cut only by the winding river, a natural road carved in the earth, accentuated by the soundtrack. While one reading of this crucial closing can posit that it is a tiny episode, unseen by any not privy to the close up, this should prove more jarring. Consider all the violent acts on the roads that go unseen, unreported. Echoing Ralph Nader's call to action, the unsafety on the roads Hopper is calling out is not only Southern, racist, uneducated, random and free roving...it is American. The kind of thing that can happen any day. And no-one is safe.

### **THE FACE OF SPEED: STEVE MCQUEEN AND *LE MANS***

It isn't really until 1971 that the crash becomes equated with slow motion. This is the watershed year for the first wave of road movies with almost monthly entries in the genre, including *Vanishing Point* (Richard C. Sarafian), *Two-Lane Blacktop* (Monte Hellman), *Duel* (Steven Spielberg), *Sweet Sweetback's Baadasssss Song* (Melvin Van Peebles), *Traffic* (Jacques Tati), *Private Road* (Barney Platts-Mills), *Goin' Down the Road* (Donald Shebib), *Homer* (John Trent) and a film often left off of such lists: *Le Mans* (Lee H. Katzin), starring *Bullitt's* everyman of speed, Steve McQueen, as a race car driver in the world's oldest endurance race, the annual 24 Hours of Le Mans competition.<sup>533</sup>

With the back-to-back successes of *Bullitt* and *The Thomas Crown Affair* (Norman Jewison, 1968), McQueen seemingly had carte blanche in Hollywood. He directed this power

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<sup>533</sup> The race, considered one of the most prestigious auto races in the world, has been held annually since 1923 near the town of Le Mans, France.

and freedom towards finally making what he hoped would be *the* film about his favorite pastime: race car driving. Collaborating with John Sturges, his director on *The Magnificent Seven* and *The Great Escape*, and Alan Trustman, his writer on *Thomas Crown Affair* and *Bullitt*, the film looked to be a dream project for all involved, rating it a six-million-dollar budget (the largest yet for a McQueen film) from producers at the newly-formed Cinema Center Films. Losing the race to the finish line with the original incarnation of the film to John Frankenheimer's *Grand Prix* in 1965 meant McQueen could learn from their mistakes. Where *Grand Prix* is an overblown soap opera which only moves during the racing sequences, *Le Mans* scarcely stops moving, and features almost no story at all.<sup>534</sup> Instead, the narrative journey is for the most part filmed coverage of the race itself. As stunt driver Derek Bell describes in an interview for the behind-the-scenes featurette, *Filming at Speed – The Making of the Movie Le Mans*: “There was never a script for the film the whole way through. We had scriptwriters coming in with a different script every week. And we just carried on, following the race as if it were a film.” Or, as McQueen's character, Michael Delaney, describes in the film: “Racing is life. Anything you do before or after...is just waiting.”

Making the film itself was a race too. Having committed to premiering the film the night before the actual Le Mans race in 1971 provided an ineluctable finish line – which neither Sturges nor Trustman would cross, as the film was taken over by its producers, and ultimately directed by Lee H. Katzin. Like most races, there were accidents and injuries along the way: stunt driver Derek Bell narrowly escaped death when his Ferrari went up in flames; a second accident involving career racecar driver David Piper resulted in the amputation of one of his legs; McQueen crashed his Peugeot with the film's female lead, Louise Edlind, and his personal assistant, Mario Iscovich, took the blame for the crash, leaving the production so McQueen could avoid a scandal he feared would finish the film almost before it started. All in all, there was enough drama (and footage) to eventually justify a feature-length documentary about the

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<sup>534</sup> In the original treatment for *Le Mans*, written by McQueen, there is a note that reveals, in one sentence, his feelings towards the film that beat him to the start line in 1965: “*Grand Prix* is a prime example of a director playing with himself in public.” [Seen in the 2015 documentary about the making of *Le Mans: Steve McQueen: The Man & Le Mans*.

making of the film, *Steve McQueen: The Man and Le Mans* (Gabriel Clarke and John McKenna, 2015), which ultimately acts to align the film and McQueen with automobility itself.

While the original film was a flop at the box office and with the critics, it has always been a favorite among car enthusiasts and fans of auto racing because of its documentary-level precision. Although McQueen refused to attend the premiere, and gave up racing altogether after the film, his ambitions were achieved. As the film's assistant director, Lee Sheldon, described: "He wanted to put the person in the theater – put them in the seat of a racecar – he wanted them to feel what he felt as a driver himself. That was always his intent."<sup>535</sup> To do this, over a dozen cameras were used in filming – including one camera fitted into a scoop built into the hood of McQueen's own retrofitted racing Porsche that he had driven in the 12 Hours of Sebring race, coming in 2<sup>nd</sup> behind Ferrari-driver Mario Andretti. When the car would come in for pit stop, they would also install a new camera preloaded with film, and be ready to roll. As a result, "The camera car was bringing to the screen what a driver would see."<sup>536</sup> The 24-hour Le Mans race was, ultimately shot three times. The first time was in 1969, with no cast. The footage was then shown to the crew so they knew what to expect and how it should look. In 1970 it was shot for a second time during the actual 24-hour race. The third time started after the crowds had gone home and went on for four months. "When you shoot on race day you shoot from the pits out, showing the big grandstand. When you're staging the picture afterward, you shoot from the grandstand towards the pits, where you can put in enough people to make it look good," Bob Relya, executive producer of the film explains.<sup>537</sup>

Following the new standards of realism for automobility established by *Grand Prix* and *Bullitt*, *Le Mans* is the first film to apply the innovations of slow motion and multi-camera montage to a crash sequence. As a result, the film established a new standard of realism in

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<sup>535</sup> From an interview in the 2015 behind-the-scenes documentary, *Steve McQueen: The Man and Le Mans* (Gabriel Clarke and John McKenna, 2015).

<sup>536</sup> *Steve McQueen: The Man and Le Mans* (Gabriel Clarke and John McKenna, 2015).

<sup>537</sup> From an interview in the 2001 behind-the-scenes featurette, *Filming at Speed: The Making of the Movie Le Mans* (2001; no director credited).

narrative film that coupled the seemingly disparate categories of cinema vérité and slow motion with automobility. Lasting four and a half minutes, the sequence does for on-screen car crashes what the famous slow motion sequence in *Bonnie and Clyde* did for on-screen violence.

The sequence begins 77 minutes into the film. Rain has been coming down in a mist so everything is wet – roads, cars, windshields – obscuring vision, and making driving at 200mph+ even more challenging and unsafe for our Driver-Car-Stars Steve McQueen in his Porsche and Siegfried Rauch in his Ferrari as they battle for first place. The soundtrack is dominated by the high-pitched whine of the engines and the lower-pitched road sound of the cars racing over its surface. Our POV of the race toggles between roadside perspectives, often in quick pans as the cars pass, with close ups shot from the hoods of the vehicles of the tense drivers sealed in the nest, and reverse angles from the driver's seat so we are racing through the landscape with them as the windshield wipers swipe madly to clear the glass in a race that seems unwinnable.

The extended crash sequence begins when German driver Erich Stahler (Rauch) comes around a curve in his Ferrari and hits a wet spot in the road, losing control of the vehicle. Suddenly we are in the nest with him, looking out through the windscreen as he spins a dizzying 360 degrees, crunches against the steel railing by the road, and bounces back into the middle of the road, blocking it almost entirely. The inevitable crash that follows starts in real time, with rapid-fire shots from the roadside, behind the wheel, and inside Rauch's Ferrari as his teammate, Claude Aurac's (Luc Merenda) car races towards him. Aurac's Ferrari shoots off the road, launches into the air and crashes through a roadside billboard – as we watch in gradations of slow motion that seem to pause silently in mid-air before gliding to the ground in a cacophony of crunching sounds. Following the rules established by *Bonnie and Clyde*, the sound of the crash remains in real time from a perspective near the vehicle (possibly inside), providing a visceral layer of realism for the Traveler-Spectator while the car appears to be gracefully disintegrating into shredded pieces as it glides to a stop near where the camera is positioned.



A hand extends from the smoking wreckage before the driver emerges, then shifts into even slower motion, and silent, seen from a vantage point behind the car. When he touches the rear fender he speeds up for a split second, punctuated by the creak of the metal. Then there is a cut to a camera set up a safer/further distance away, as he runs from the wreck in extreme slow motion and almost silence, save the blowing wind, and his own labored breaths. His movements shift several times from slow motion to regular speed to sudden sped up jerks (akin to Spielberg's use of the 45-degree shutter in *Saving Private Ryan*). Then sound returns with a vengeance as the car explodes – which we see from several vantage points, seeming to build in intensity with each cut – ultimately sending the driver flying into the air. At this point the film slows to its slowest speed yet, stretching his descent to the ground into almost eight seconds, making it the longest shot in the entire sequence.

Suddenly we are looking through the driver's side window at McQueen in the nest of his Porsche. In what is probably the only special effects shot in the film we look past his profile, through the passenger side window we see an explosion in the distance, indicating a slight slippage of time (since we saw the Ferrari explode almost a minute earlier).<sup>538</sup> Accentuated by the weirdness in time of this shot, there is also something not right about space. Seen through, two windscreens (windows on the driver's and passenger side) the shot *feels* different. After seventy minutes of authenticity behind the wheel and on the road, something feels *off* about this shot. But it's only about a second-and-a-half, so it's almost too quick to process. Distracted by the flames in the distance McQueen looks away from the road long enough not to realize he is about to crash into the much slower car ahead of him – a point accentuated by the sudden zoom from the driver's POV into the back of the car. Just as quickly there is a reverse of angles and we get a quick zoom into an extreme close up through the windshield of McQueen's eyes flashing wide, then he jerks the wheel, slamming into the guard rail. We get a quick cut of his windshield in close up cracking into a blinding spiderweb of light. McQueen's crash plays out almost entirely in

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<sup>538</sup> Another possibility is that the car is exploding *again*, which is possible, though not likely.

real time, ping-ponging off the guardrails on both sides of the road, shredding the car to a smoking lump almost instantaneously with the soundtrack providing visceral punctuation.

When the car comes to a stop, everything goes silent. We spy on McQueen through the spiderwebbed glass; he is still clutching the wheel, his body jerking several times seizure-like, as the camera slowly zooms into an extreme close up of his famous blue eyes. Now we see the sequence play out in flashback, in slow motion and silent...until the *kraack* of the first impact. Then we cut back to our present time, the camera again zooming in on McQueen, this time through a hole in the windshield, as he stares almost directly into the camera. Once again we flashback to the slow motion sequence, again in silence, save the blowing wind. Again on impact there is an explosion of sound, followed quickly by a close up from inside the cockpit of the windshield spiderwebbing in cracks. Again, we return to the present, zooming closer on McQueen through the hole in the windshield. We return to flashback a final time, now behind the Porsche, heading for its third collision into the railing on the opposite side of the road. The rest of the crash plays out now in slow motion, but with sound at regular speed – with occasional cutaways to ECU's of McQueen through the hole in the windshield. Silence returns just long enough for the hood to whip off majestically. With each subsequent impact we then see jolts shooting through McQueen's body as he relives each point of impact.

Although the use of slow motion like this is now regarded as a standard trope of mainstream filmmaking, and has been since the 1980s, in 1971 this was still groundbreaking – part of what some critics considered an all new “cinema of attractions.” The release of Sam Peckinpah's groundbreaking film *The Wild Bunch* the year before set a new standard in screen violence. Thanks to the then-radical combination of slow motion, multi-camera montage and the new innovation of the squib – small explosive devices mounted to latex bags filled with fake blood (and sometimes chunks of raw meat) – *The Wild Bunch* expanded the infamous minute-long sequence introduced in *Bonnie and Clyde* into a feature-length exploration of screen violence. *Le Mans* transposes that approach into the world of automobility. Instead of human

bodies exploding into slow motion bits of blood and gore, we see car bodies torn to shreds revealing damaged skeletal structures under ripped metal and dripping fluids.

Unlike the collision-experiment films of the 1950s and '60s, we do not see the human body thrown around the interior/nest of the car. Rather, the opposite is stressed – the difficulty and challenge of a human body extricating itself from the body of the car (echoing *Bullitt*). In the above sequence, the use of slow motion seems, at times, to be conspiring against the driver; fighting against his separation from the body of the car he had been fused with up until this point, as the Driver-Car. While the second impact is the point of inquiry that slow motion seeks to expose in collision-experiment films like *Safety Through Seat Belts* and *Safety Belt for Susie*, starring the crash-test dummies, here, the second impact is, in effect, nullified. Instead, the two dangers to the driver are the crash (first) and the explosion of the car (second), equating the car closely with an explosive projectile, or as Virilio describes, “a projecting projectile (the automobile).”<sup>539</sup> While this film also uses slow motion to access the truth of the crash, at the same time it is being used to assert control over the body of the car that is now out of control. It is, in essence, the only control possible. Applying the techniques first used in the collision-experiment films, one of the truths that a film like *Le Mans* seeks to reveal is that these are real crashes. Using slow motion in combination with multi-camera montage in this era was to reveal the absence of artifice in these sequences. It is in this way that the hyperstylized spectacle of slow motion is perceived as authentic and true. Amy Rust’s point regarding the use of this combination in *Bonnie and Clyde* is applicable here:

Multiple-camera montage seeks coverage [...] in the name of omnipresence, not linear continuity. As a result, multiple-camera montage reinforces the disclosures that attend its slow-motion inserts. [...] Multiple-camera montage purports to provide spectators with direct evidence of a former ‘all-at-onceness’ by synchronously preserving as much ‘now’ as the film could record at that moment.<sup>540</sup>

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<sup>539</sup> Paul Virilio, “Dromoscopy, or The Ecstasy of Enormities,” Trans. Edward R. O’Neill, *Wide Angle* Vol. 20, No. 3 (July 1998), 17.

<sup>540</sup> Amy Rust, *Passionate Detachments*, 46-47.

In the case of *Le Mans*, where the extended crash sequence was covered by twelve to fourteen cameras,<sup>541</sup> the number of different POVs offered by the assortment of cameras running at different speeds testifies to the authenticity of the event, as well as their control over it. The other purpose for slow motion here is for spectacle of another sort – two fused into one, actually – first, the representation of memory, in this case, involuntary, and secondly, the representation of excess emotion. While the element of ‘cool’ was already built into the brand of Steve McQueen by 1971, requiring him to suppress excess emotion of any kind, the use of slow motion is used instead to show the torturous images trapped behind the taut cool grimace.<sup>542</sup>

### **JUST PASSING THROUGH, NO TIME FOR SIDETRACKS: *TWO LANE BLACKTOP***

The process of joining with a car leaves lasting traces; a bond noticeably *not* severed when exiting the car. In *Two-Lane Blacktop* we meet two such characters, who live, breathe and communicate only in terms of automobility. As even their names suggest, these characters exist only in relation to the car: The Driver (James Taylor) and The Mechanic (Dennis Wilson); neither of whom rarely speak of anything other than their expertly customized 1955 Chevy or how it relates to the road, and their immediate future on it (that is, *when* they speak at all). Stripped to the bare essentials of narrative, these characters, like the *mise-en-scène*, exist solely in the realm of automobility. As such, the film remains perhaps the purest expression of automobility in narrative cinema. Even the opening seconds displaying the Warner Brothers insignia has been coopted by automobility, with the sound of revving engines replacing the still-standard orchestral flourish that opens most W.B. films.

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<sup>541</sup> This approximation was described by the film’s assistant director, in an interview in *Steve McQueen: The Man and Le Mans* (Gabriel Clarke and John McKenna, 2015).

<sup>542</sup> The following year, in Sam Peckinpah’s *The Getaway*, slow motion is again fused with flashback to reveal a side of McQueen that otherwise remains almost unseen onscreen – that of a smiling, sentimental lovestruck ex-con just out of prison, reminiscing about a perfect summer day skinny-dipping with Ali McGraw. Although slow motion is used here to indicate involuntary memory specifically, the equation of slow motion = memory has since gone on to become a trope in the cinema. This film was not the first to feature such a fusion. That credit goes to Peckinpah and his repeated use of slow motion in flashback in *The Wild Bunch*, released in 1969. In that film more than perhaps any other we see emotion, memory and violence fused together under the dreamy sheen of slow motion.

The film opens in the middle of the set up for an illegal street race, with no explanation, or indication of who our main characters are, no master shot, and no real dialogue; just the continued engine sounds, growing louder. The only reason we know who will be the focus of the film is because of the casting of two such conspicuous rock and roll stars. This sequence is perhaps the only point in the film where it aligns with earlier versions of automobility and the history and tradition of the studio. Recalling Warner Brothers' definitive rebel picture from fifteen years earlier, *Rebel Without a Cause* (Nicholas Ray, 1955), the opening sequence here recycles the infamous chicken run sequence in that film, even repeating specific shots: framing the crowd behind the cars as they line up, tension between drivers at the starting line, and most significantly, the signaling of the start of the race itself.<sup>543</sup> By aligning itself with the genre signifiers of both youth rebellion and racing films, the film essentially provides viewers with what in the racing world is known as a 'false start' – as the film veers off into a more arcane, meandering direction immediately after this – yet another way the form of the film is aligned with automobility, translating the 'false start' here to its narrative equivalent.

The police arrive before anyone can cross the finish line. The racers and their audience scatter, speeding off in different directions. We follow The Driver and The Mechanic in their '55 Chevy as they drive for no clear reason to Needles, California. Following the lead of their anti-hero predecessors in *Easy Rider*, our anti-heroes here also head East, against the grain of the Western (and, with it, against western expansion, pioneer logic, colonization), against even the built logic of Route 66, which was the first highway that connected the East Coast to the West Coast. The only real narrative direction of the first third of the film is the route they drive...East. Along the way they change their tires, get gas, go to a diner, all with little conversation save that focused on the maintenance of their car.

As they drift, the film drifts. But then, these are drifters who drive, and drivers who drift from one race to another. (And even that description is more focused than their lives on screen.)

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<sup>543</sup> Of course it was James Dean's untimely death just before the release of *Rebel Without a Cause* that resulted in its instant canonization, and an alignment of youth and rebellion with the crash and the cinema.

A quarter of the way into the film a young woman known only as The Girl (Laurie Bird) transfers her bag of belongings from a van in the parking lot outside the diner where the pair are eating to their 1955 Chevy for no other apparent reason than the fact it was parked next to it. While neither The Driver nor The Mechanic see her, *we* do, through the window of the diner behind them as they eat.<sup>544</sup> When the pair come out to find her in the car, they barely acknowledge her; it doesn't interrupt their plan or the film's plot, which are one in the same thing: to get to the next race. It is only when they meet GTO. (Warren Oates), a character named after the automobile he drives (Pontiac GTO) — who has been challenging and/or hassling them at random moments on the journey — face-to-face at a gas station, thirty minutes into the film, that anything like the bare bones of a narrative-driven plot begins to form. They make a bet — a race across country to Washington D.C.; the stakes: ownership of the losing car. But even the race takes the proverbial backseat to what the film is really about: how these characters relate to each other in the enclosed microverses of each car, and how they relate to the cars themselves. While The Driver, The Mechanic and GTO are connected to their cars, reliant on them as reflections, The Girl moves freely from one vehicle to another; starting in the van where we meet her making her exit, to the stripped down '55 Chevy of The Driver and The Mechanic, to the pristine off-the-lot Pontiac GTO of GTO, to the motorcycle she eventually hops on, leaving the trio at the diner near the end of the film. This fluidity suggests she is either connected to mobility or the road, while our male characters are inextricably linked to their automobiles.

The contrast between the nests of these cars is at least as striking as a comparison of their shells. The '55 Chevy is built purely for speed; like the characterization of The Driver and The Mechanic, the nest and shell have been stripped to purely utilitarian purpose. There is neither heat nor a back seat; both of which would slow the car down, they explain, when The Girl complains about her riding conditions with the toolbox where a back seat normally would be. Even the dashboard is stripped to just a handful of gauges that provide a direct interface with

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<sup>544</sup> Here, the camera actually pans away from the pair, inspiring David Laderman's insight: "Such camera position and movement suggests audience identification with the two men, but also a critical faculty of observation linked with her, beyond their field of vision and attention." (David Laderman, *Driving Visions*, 98.)

the mechanics and electricals under the hood. The shell of the car remains unpainted, just matte gray primer; while the impression is purely functional, it reads like a ‘poker face’, or unassuming disguise to disarm potential competitors. The Mechanic peels the skin of the shell away to get in the trunk or at the engine, revealing the car lacks even the standard hinges and clasps; instead the pieces are clipped into place, appearing both flimsy and light to the touch when he removes them. Clearly, safety was set aside in the search for maximum speed. Only the seatbelts give away a sign of caution, of preparation for the inevitable crash – in the form of dual shoulder straps that are only typically seen in jet fighters. This too, seems a utilitarian preparatory response to the speed they anticipate. The custom-built hood scoop allows extra room for the monster engine and air intake necessary to keep it cool, jutting high above the hood, obscuring the vision of anyone inside the car. The repeated shots from within the car call repeated attention to this unique relationship of these characters to automobility, the road and speed.

By contrast, the Pontiac GTO, we are reminded multiple times, has been driven straight off the automobile dealer’s lot. So although what we see is striking – indeed, still considered by auto enthusiasts to be one of the best muscle cars ever assembled in Detroit – it is a mass-produced aesthetic of speed equally available to *any* driver across the country who can pay the price on the tag. As the film’s screenwriter Rudy Wurtlizer described it, “The GTO is the consumer car par excellence, a metaphor for the consumer culture. It’s absurd, but in a great way. The Chevy is the artist’s car, made and created by people who are in love with the process of building a car.”<sup>545</sup> That said, the view inside the GTO is dazzling. When GTO picks up his second hitchhiker (Harry Dean Stanton), the scene is shot from the back seat so we see the backs of both front seats as well as a clear view of the chrome and wood-paneled dashboard with its stunning array of gauges, lights and push-buttons. Above that the top half of the screen is devoted to the Cinemascope-dimensional view of the road seen through the windshield and side windows, which from this perspective are flattened into a nearly flat screen that stretches all the

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<sup>545</sup> This quote appears in numerous places on the Internet, but appears to originate from a piece run in a 2008 article in *Hot Rod* to accompany the release of the Criterion Blu-Ray/DVD. See Thomas A. DeMauro, “Behind the Camera: Two-Lane Blacktop,” *Hot Rod* (June 1, 2008), <https://www.hotrod.com/articles/hppp-0806-behind-the-camera-two-lane-blacktop/>. Accessed June 30, 2020.

way across the widescreen of the movie screen (interrupted only slightly by the two pillars that hold up the windshield). This is a striking contrast to the largely obstructed view the '55 Chevy offers, revealing what a striking spectacle travel can be inside the Pontiac GTO. Being seated behind GTO and his series of hitchhiking guests recalls the experience of going to the cinema itself – reflecting the aesthetic/architectural experience of the Traveler-Spectator, from the shape of the seats to the elevation of the widescreen in front of you (and for the less fortunate, the chatty stranger, relative or roommate who could possibly be beside you).

*Two Lane Blacktop* is one of the rare films where production both mirrors what we see on screen and influences it. Indeed, much of the authenticity of the film is a direct result of the conditions of shooting it. Unlike *Easy Rider*, which featured several constructed sets and augmented locations amidst a predominance of location shooting, *Two-Lane Blacktop* was filmed entirely on location and, unlike almost every film at the time, was shot in sequence. This meant that the entire film crew also undertook the same cross-country journey we see on screen.<sup>546</sup> Of the characters we meet on screen, only Warren Oates and Harry Dean Stanton were professional actors; the film marked the screen debuts of virtually everyone else, including the other leads, Wilson, Taylor and Bird. All the extras were locals cast from the population of whatever town they were shooting in. The only actor to receive the complete script was Oates. The rest of the cast were given only the pages for the scenes they would shoot the following day. Hellman felt that this way the actors were playing their roles as one lives their life, day by day, without knowing what comes next.<sup>547</sup> This, in conjunction with the utter lack of self-consciousness on screen of the actors translates on screen to a group of real people (even if ¾ of them are celebrities) reacting to the realities of automobility and life on the road.

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<sup>546</sup> A budget slashed by Universal to \$900,000, necessitated the skeleton crew of eighteen travel together in half a dozen vehicles. According to: Gary Kurtz, audio commentary, *Two-Lane Blacktop* DVD (Umbrella Entertainment, 2007).

<sup>547</sup> Director Monte Hellman describes this in an interview featured as a bonus feature on the Criterion Blu-Ray of the film (Criterion Collection, 2013). He also relates how he eventually had to give a copy of the entire script to James Taylor, who threatened to walk off the production if he didn't get a copy – a point Taylor echoes in an interview, which appears as another bonus feature.



Panned upon its release by critics and shunned by audiences, the film has only in recent years been recognized as one of the masterworks of New Hollywood, and a singular cinematic experience. Like many films in the New Hollywood of the early 1970s, inspired by the unprecedented creative innovations (for filmmakers) and financial success (for studios) of *Easy Rider*, Universal saw *Two-Lane Blacktop* as its next hit on the schedule, a film sure to connect with the same subcultural audiences who turned out in droves for Dennis Hopper's film. The subculture explored however haphazardly in *Two-Lane Blacktop* is not the same counterculture of hippies and drop outs explored with flowery aplomb in *Easy Rider* – but rather the underground community of street racing, something that *The Driver* and *The Mechanic* are somehow attuned to – not unlike the connection between *The Driver* and the DJ explored further in *Vanishing Point*, released the same year.<sup>548</sup>

Like most road movies of this era, the sub-culture in *Two Lane Blacktop* is contained within the nest of the car, both insulated and isolated by the shell as it crosses through mainstream America. It is really only safe...until it isn't. Here, too, the crash is ultimately unavoidable; post-Nader, it is built into the physical framework of automobiles and psychological framework of the traveler and the Traveler-Spectator. Even if it doesn't happen to the main characters, they will inevitably cross paths with someone's else's crash (mirroring and activating the experiences of the Traveler-Spectator). In *Two Lane Blacktop* there are two crashes. The first is a roadside spectacle we see after the fact in the form of a semi-trailer truck and car overturned in the road. Sitting in the shade of his overturned truck an old man explains to *The Driver* and *The Mechanic* when they stop how the other man is dead with a broken neck after coming straight at him on the wrong side of the road. The second crash we only hear about when GTO picks up an old woman and a little girl (played by Hellman's own daughter in her screen debut) – on their way to the cemetery to visit the girls' parents, killed by a "city car".

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<sup>548</sup> Hellman would explore a hidden subculture of another sort in his following film, *Cockfighter*, which also features Oates, who is also keenly attuned to the backroads community dedicated to the bloodsport.

There is also a third crash potentially embodied in the experience of the film's infamous, divisive closing sequence.<sup>549</sup> The film actually has two endings. The first occurs in the form of GTO's latest tall tale – told to his latest hitchhikers, a pair of military men on leave: how he won the GTO in a race against two boys in a “built-up car”; how theirs was faster, but he was the one who really knew how to drive. The second ending for the film – which could help explain GTO's story – takes shape in the parking lot outside the North Carolina diner where our characters last meet. Here, Taylor sets up a race with some locals – a possibly self-destructive move at least partly due to The Girl's sudden exit that may possibly cost them the race with GTO, giving credence to the previous ending GTO describes to his captive audience of new passengers.

In the final racing sequence, we barely see the competition; just a brief tracking shot past the group of locals gathering around the local favorite – an unimpressive El Camino car/truck hybrid. Instead, careful attention is given to the special shoulder harness The Driver puts on before the race. Then, as he sits behind the wheel at the starting line, perspective changes, sound changes, time changes. All sound fades to far away, as he turns his head from the car next to him to a farm in the distance, the gravel driveway beside it, populated by several old cars and horses. The soundscape goes almost completely silent, save for slight bird sounds and wind. When he slides the driver's side window shut, there is a weird sonic disjuncture; it sounds more like a desk drawer being closed in an echoey room or a gavel being dropped. What follows is our only ECU in the entire film – of his hand on the gear shift. Now time itself has changed. We only notice as The Driver adjusts himself in the seat; the sound of engines now far, far away. This may strike a viewer as a purely subjective state; that our Driver is in ‘the zone,’ and he has taken us with him. When the film cuts to a shot of the man starting the race by dropping his arms, everything snaps back into real time of 24 frames per second. But just as suddenly we are back

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<sup>549</sup> Critics and historians have dismissed the film and its ending as contrived, purely formal, dated, occasionally pretentious or a mixed metaphor. These descriptions originate from a variety of sources from period reviews to 21<sup>st</sup> century reappraisals. See Nicholas Godfrey, *The Limits of Auteurism*; David Laderman, *Driving Visions*; Vincent Canby, “Cross-Country Ride and a Chase in Spain,” *New York Times* (July 8, 1971), <https://www.nytimes.com/1971/07/08/archives/crosscountry-ride-and-a-chase-in-spain.html>. Accessed June 30, 2020; Roger Ebert, “Two-Lane Blacktop,” *Chicago Sun-Times* (January 1, 1971). <https://www.rogerebert.com/reviews/two-lane-blacktop-1971>. Accessed June 30, 2020.

in the backseat of the '55 Chevy, and as the car moves down the track, the film begins to slow down as the sound of a slow low roar slowly builds. So in this race, instead of speeding up, the film runs slower and slower...until even The Driver's long hair seems suspended in mid-air. Suddenly the film itself catches fire – starting right at the back of his head (recalling JFK perhaps, if we ever would have seen the assassination from that angle). The red/orange hole quickly spreads across the frame, devouring it – looking a bit like a Stan Brakhage film or a drugged out sequence from *Easy Rider* or *Point Blank* (John Boorman, 1967). As the image disintegrates, threatening a takeover of the entire screen by blinding white light, instead everything turns to black, and the sound cuts off with a few milliseconds of echo. Then credits appear in white text on a black screen in complete silence.

The fiery, obtuse ending has been read as self-reflective, or a breaking of the fourth wall; a moment that sends the film back into a loop of itself (perhaps inspiring David Lynch's 1997 film, *Lost Highway*); a self-immolating symptom of the film's own European influence (Antonioni is the name most often dropped in association with this theory). But the reading I offer here is: it is not an ending at all, but rather an indicator of all the endless races The Driver will be in until his eventual death. Read this way, the ending we see on screen is the eventual fiery crash that most likely would consume a character so bound to automobility – if not in this particular race, then some race in the future, near or far. This race, after all, is like any other, when seen through The Driver's eyes (and heard through his ears). The moment that most stands out is his momentary distraction by the farm – the other cars there, the alternate form of transportation – which is simultaneously the precursor of the automobile and an alternative to it; perhaps to The Driver it is also a brief glimpse of another life he could have lived. One with a home, a base, land, belongings. Of course it could also be a cautionary message to any film critic – that if you slow the film down enough to try to make sense of it, not only will it eventually stop, it will *burn*. At the same time, it could also offer a warning to any Traveler-Spectator: *do not stop, you will burn*.

## MAXIMUM TRIP, MAXIMAL SPEED, AND THE HORROR OF *VANISHING POINT*

Since the 1960s, critics have split their time discussing, dissing and celebrating the open-ended narrative structure of the road movie, especially in the definitive counter-cultural period of the late 1960s and early 1970s. These films' freedom from narrative conventions is often seen as a reflexive commentary on the characters themselves, and their seemingly random or directionless journey.<sup>550</sup> Often in these films, mobility is narrative. At its most pointed, it will read as a quest tale. At its least focused, and most oblique, it becomes an update on the *dérive* albeit in the realm of automobility – arguably the purest form of the 'road movie,' as it is the winding, endless road that provides the structure and the only literal grounding for the film. In any case, recognizing movement as a narrative force is key to addressing these films. For the most part, we are also given access to these narrative worlds by “a look that *moves*,” as Laderman describes it, or “a look that precipitates a body in motion.”<sup>551</sup>

In *Vanishing Point* (Richard C. Sarafian, 1971), we are presented with a body not only in motion almost constantly, but moving at dangerously high speeds. Like racing films *Grand Prix* and *Le Mans* (and *Bullitt*), *Vanishing Point* was also shot at dangerously high speeds. As in those films, speed itself is held up as a measure of authenticity, a new standard in the representation of reality on screen; itself a form of rebellion against methods of filmmaking that preceded it.<sup>552</sup> The only studio location used during shooting was the California police control room seen at the end of the film. The rest, like *Easy Rider* and *Two Lane Blacktop*, was shot on location, following Kowalski's (Barry Newman) actual route across the country from Colorado to California.<sup>553</sup>

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<sup>550</sup> As David Laderman points out: “According to David Laderman, “As a result, the road movie may not possess a clear-cut beginning, middle, or end; likewise, the genre often shifts gears regarding mood and plot with a certain disorienting, open-air free will.” (David Laderman, *Driving Visions*, 17.)

<sup>551</sup> David Laderman, *Driving Visions*, 71.

<sup>552</sup> *Vanishing Point* was Twentieth-Century Fox's attempt to cash in on the audiences who flocked to *Easy Rider*. Unlike any of the other films in this cycle of road movies, *Vanishing Point* took shape as a cross-promotional venture between the studio and the Chrysler Corporation, who manufactured the Dodge Challenger, and who, according to the film's director Richard C. Sarafian, provided the production with eight Dodge Challengers for a fee of \$1 a day, thanks to the wheelings and dealings of Fox studio head Richard D. Zanuck (son of previous studio head, Darryl F. Zanuck). Now of course this level of product placement is standard operating procedure, but in 1971, it was unheard of. The fact that the deal was brokered before pre-production means that on some level, the entire film was self-consciously designed as an advertisement, at least by Zanuck.

<sup>553</sup> Richard C. Sarafian, audio commentary, *Vanishing Point* DVD.

Unlike *Easy Rider*, and more like *Two Lane Blacktop*, neither the road nor the country offers our driver and anti-hero Kowalski (Barry Newman) anything new to discover; rather, the country is conceptualized as an expanse he must cross as quickly as possible – a necessary barrier that speed is intended to erase. While each stop in *Easy Rider* and *Two Lane Blacktop* offers a potentially different path for its travelers (enlightenment, peace, stability, a new race, a new traveler), for Kowalski there is only one reason to stop: fuel (both in the form of gasoline for his Dodge, and methamphetamines for its driver). Of course the central threat Kowalski seems to pose to normative culture is speed, or, put another way, *hyper-automobility*, as he enacts his form of political and spiritual rebellion through his car. Like The Driver and The Mechanic and their '55 Chevy in *Two-Lane Blacktop*, the Driver-Car assemblage of Kowalski and his Dodge Charger only seem at ease when moving. In both films, automobility is offered as an anti-authoritarian act, echoing the equation of mobility by motorcycle and rebellion in *Easy Rider*.

Unlike the meandering paths of *Easy Rider* and *Two Lane Blacktop*, the basic plot of *Vanishing Point* is streamlined for pure speed (in both senses; velocity and the drug): Accepting a job to deliver a Dodge Challenger to San Francisco, Kowalski makes a bet with his drug dealer that he can make the trip from Denver to San Francisco in fifteen hours.<sup>554</sup> The rest of the film plays out like a feature-length extension of the famous twelve-minute chase scene in *Bullitt*, stretched across the desert expanses of the Southwest. Only here, the cops are the bad guys in a seemingly endless supply of pursuit cars. The film is equally famous for its existentialist repaving of the road movie as its high-concept conceits. But unlike *Easy Rider*, *Two Lane Blacktop* and most surprise ending stunners, the twist in *Vanishing Point* comes at the beginning; or, rather, the *three beginnings* that the film offers.

The film opens in the tiny town of Cisco, California, where police prepare a roadblock as a crowd of spectators of all ages flocks around to see the road-based spectacle. We first meet our anti-hero, Kowalski, face-to-face as he slams on the brakes when he sees the blockade, quickly

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<sup>554</sup> This is a bet that Google assures us Kowalski would lose (at least in 2020). According to a basic Google search, the drive would last at least nineteen hours:

<https://www.google.com/search?q=how+long+does+it+take+to+drive+from+denver+to+san+francisco>

spins a 180, and heads back in the direction he came. Spotting three police cruisers heading straight for him, Kowalski takes it off road, veering through a barbed wire fence, and speeds off into the desert. Deep in the desert, he stops to inspect the wreckage of long-dead and rusting shells of abandoned automobiles and trucks. Here, at sunset, he seems to muse over a possible ending of joining the rest of the rusting wrecks abandoned in the sand.

Later. Kowalski races down a dirt road, blasting through train tracks and a stop sign, past smoldering flares on the ground, before heading across the screen, left to right, in a blur of speed. Just as he passes a black sedan racing the other way, there is a *freeze frame* – and a title appears at the bottom of the screen: ‘CALIFORNIA – SUNDAY – 10:02 A.M.’ The freeze frame holds for several seconds, then the title fades and so does Kowalski’s white Dodge. The frame with just the single black sedan holds in freeze frame for a few seconds – then resumes its movement, racing to the right, down the road in the direction from which the vanished white muscle car just came from. Then the film fades to black. In the scene that follows we are finally introduced to Kowalski by name, as he’s given his driving assignment at a garage in Denver, Colorado: the white Dodge Challenger he was driving in the beginning of the film.

With this enigmatic three-pronged beginning, there is something more complex going on here than a standard flashback, or noir-like narrative loop.<sup>555</sup> To further complicate matters, neither of the two potential endings we see embedded in the beginning actually end up happening at the close of the film. One possible reading of the film is that Kowalski is caught in a feedback loop when we meet him, but at the end of this journey, he finally chooses to end the cycle (with a smile), or that the entire film is a flashback (with additional embedded flashbacks) that takes place in the scant seconds before Kowalski crashes into the roadblock. There are of course a number of horror films that feature this trope, starting with Charles Vidor’s 1929 short adaptation of Ambrose Bierce’s classic antebellum story from 1891, “An Occurrence at Owl Creek Bridge” simply called *The Bridge* (Charles Vidor, 1929), Robert Enrico’s 1962 adaptation

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<sup>555</sup> The closest cinematic occurrence comes sixteen years later in the form of *Lost Highway* (David Lynch, 1997), when a jazz saxophonist (Bill Pullman) may or may not morph into the form of young auto mechanic (Balthazar Getty).

of the story, *La Rivière du Hibou* (1962) which eventually reached American audiences as an episode of *Twilight Zone* in 1964, *Carnival of Souls* (Herk Harvey, 1961), *Jacob's Ladder* (Adrian Lyne, 1990), *The Sixth Sense* (M. Night Shyamalan, 1999), *The Others* (Alejandro Amenábar, 2001) and *Stay* (Mark Forster, 2005). Aviva Briefel categorizes these films as a sub-genre of horror, coining the term 'spectral incognizance' to describe how death is meant to be overlooked by spectators for most of the film.<sup>556</sup> As Briefel describes:

The films try to prolong the metaphorical lives of their spectators by deploying a narrative structure that favors circularity and repetition over linear progress. The compulsion to repeat a potentially uncomfortable experience does not fuel the death drive, but a form of detached reading predicated on viewing death as a formal rather than a metaphysical entity. We gradually detach from identifying with the protagonist and transition to identifying with the constant renewal of the narrative form.<sup>557</sup>

In the case of *Vanishing Point*, the narrative form is driving – and specifically, at high speeds. And as Briefel points out, “The image of driving as a metaphor for a life that has exceeded its limits is a recurrent trope in films of spectral incognizance[...].”<sup>558</sup> Reading the film as a horror film, and specifically as an example of 'spectral incognizance,' suddenly illuminates Kowalski's need for speed, as well as the otherwise inexplicable reasons for the increased police frenzy concentrated on the chase. Seen this way, the film forecasts the tortured journey of Vietnam veteran Jacob (Tim Robbins) in *Jacob's Ladder*, who is plagued by PTSD-fueled flashbacks and hallucinations involving his friends now living double lives as demons.<sup>559</sup>

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<sup>556</sup> As Briefel describes: “The protagonists of this genre, with whom the viewer is meant to identify for the entirety of the film, finds out in the final moments that he or she has died or been involved in a prolonged dying process.” (Aviva Briefel, “What Some Ghosts Don't Know: Spectral Incognizance and the Horror Film,” *Narrative*, Vol 17, Number 1 (January 2009), 96.) These are the films examined in Briefel's excellent article. There are of course many more, and not necessarily classified as a horror film, like the striking 1932 Edgar G. Robinson melodrama, *Two Seconds* (Mervyn LeRoy, 1932), where Robinson's character relives his entire life in the two seconds it takes to die after being executed in the electric chair.

<sup>557</sup> Aviva Briefel, “What Some Ghosts Don't Know,” 96.

<sup>558</sup> Aviva Briefel, “Spectral Incognizance,” 99.

<sup>559</sup> It isn't until the end of the film that we realize Jacob is on his deathbed, unable or unwilling to give up his life and move on, even as his friend Louie (Danny Aiello) advises: “The only thing that burns in Hell is the part of you that won't let go of life, your memories, your attachments. They burn them all away. But they're not punishing you. [...] They're freeing your soul. So the way he sees it, if you're frightened of dying and you're holding on, you'll see devils tearing your life away. But if you've made your peace, then the devils are really angels, freeing you from the earth. It's just a matter of how you look at it, that's all. So don't worry, okay?”

Of course the chronotope of automobility enables and encourages such reflection.<sup>560</sup> Throughout the film, we see the purest form of the interior of the automobile as nest; a place to reflect, recall and even dream, even at top speeds. Simultaneously a product of isolation and speed, Kowalski is transported back in time throughout the film like *The Man* (Davos Hanich) in *La Jetée* (Chris Marker, 1962) via bursts of involuntary memory.<sup>561</sup> There is a direct relation of speed and the flow of memory in the first two flashbacks. The first is triggered after his initial run-in with the law on the road after he swerves to run them off the hill. Concerned, Kowalski slams on his brakes, and we get our first flashback – of a motorcycle race, just as two bikes go out of control, sending their drivers sliding into the dirt, their bikes doing somersaults ahead of them – causing a third rider to be sent sliding and careening into a wall very near where the camera is placed. The impact is real, and very violent – sending the bike flying dangerously close to the camera. There is a cut and the rider gets up to reveal it is Kowalski – who fires up his bike and is back in the race (a point the announcer shares with the crowd).

The second flashback appears more randomly, with no direct trigger other than the sheer speed Kowalski is traveling (and the ‘speed’ – i.e. methamphetamines – he has digested). Suddenly Kowalski is looking out through a different windshield on a different day, with more than a dozen stock cars racing on a track in front of him going around a curve. With the addition of the race announcer’s voice we are suddenly privy to what appears to be television coverage of the race – as a car ahead goes into a slide, slamming into a second car beside it, then sent rolling over the top and onto the other side of it, now on fire. By the time it comes to a stop it is consumed in flames. More cars are crashing now from the gasoline spilled on the tracks (which the announcer points out). The final car in the sequence to spin out of control, flipping over dangerously near the camera, spinning round and round on its roof is driven by Kowalski. We

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<sup>560</sup> Similarly, Blasini conceptualizes a “chronotope of the automobile” in his dissertation, arguing that cars are “reservoirs of time and space”: “The car becomes the site where Kowalski experiences the remembrance of unpleasant and painful memories. In that way, the automobile turns into a catalytic agent that facilitates the encounter between distant places and different times. The correlation between the past and the present are established through motorized vehicles.” (“Fasten Your Seat Belts [...]”, 127,126)

<sup>561</sup> Only one flashback occurs when he has come to a rare stop, triggered by the girl at the gas station, causing him to recall his surprising past as a police officer who intercedes when his partner is trying to molest a girl in the back seat of the police cruiser, pulling him off of her roughly. The rest of the flashbacks are triggered while driving.



get a quick close up of him inside, upside down, bloody, trapped – then suddenly we are back in the Dodge Charger in the present time.

Neither of the crash flashbacks seem to rattle Kowalski. Rather, he seems to both anticipate crashes, and, if anything, be fueled by him. Here we have another post-Nader driver who recognizes that the crash, too, is a component of automobility. The spectator reads the flashbacks as background story, helping us to fill in the character of our anti-hero, who we know so little about. But on repeated viewings of the film they can also be seen as a form of cautionary flash-forwards, more psychical hints of his fate to come, and more evidence of just how complex the time-space of the automobile can be. Reading *Vanishing Point* as a horror film transforms these sequences into scenes that are attempting to haunt Kowalski, or perhaps trying to send him a message about his forthcoming fiery fate.

Of course the more famous psychic connection in the movie, discussed in every critical essay on the film, is the connection of Kowalski and the blind African-American small-town radio DJ Super Soul (Cleavon Little) who is somehow able to address Kowalski at all times, whether over radio waves (even at impossibly far distances) or in some cases no radio at all. On one level, Super Soul functions similarly to a classic Greek chorus, existing both inside and outside the diegetic world of the film; on another level he is also both the voice of subcultural America in the early 1970s and amplifier of Kowalski's plight as emblematic of anti-authoritarian feeling at that time. Unfortunately, the growing crowd also attracts a group of racist white locals who break into the radio station and attack Super Soul and the black technician who is working the board.<sup>562</sup> Later, they coerce a beaten and bloody Super Soul to lie to Kowalski over the air, telling him it was safe, even as the roadblock was being set up outside. Reexamining the relationship between the two characters through the lens of highway horror, and specifically spectral incognizance, transforms this typically singular connection to another example in a long tradition of horror. As in films like *Carnival of Souls*, *The Sixth Sense*, *The Others* and *Jacob's Ladder*, Super Soul

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<sup>562</sup> While the film is progressive for its time in its portrayal of the plight of these men at the hand of abusive racists, it is equally repugnant in its caricatured portrayal of two homosexual hitchhikers that Kowalski picks up along the way.

becomes a character poised between two worlds, seeking to advise the traveler about what is really happening and where to go.

An argument for reading *Vanishing Point* as a horror film becomes more convincing by considering the version of the film released in the U.K., which includes a crucial, additional seven-minute sequence that appears just before the climactic closing scene of Kowalski racing to his death with the roadblock, featuring Charlotte Rampling as a mysterious hitchhiker clad in black, suitcase in hand, who he picks up on a dark deserted road. The sequence, strikingly different from the rest of the film, features a number of firsts. For the first time in the film it is night, as well as the first time Kowalski stops driving, starts talking, and smokes marijuana with his enigmatic passenger who confesses: “I’ve been waiting for you for a long time. Oh, how I’ve waited for you. Everywhere and since forever. Patiently. Patiently. That’s the only way to wait for someone.” They kiss passionately and the scene fades to black. When Kowalski wakes up the next morning, she is gone. He gets out of the car, watching with a knowing look as a police cruiser drives by, as if accepting his fate. In an interview with Paul Zazarine, actor Barry Newman who plays Kowalski, said that he felt the scene was crucial to decoding the rest of the enigmatic film, that “she was the symbol of death” and that the scene “really gave the film an allegorical lift and explains everything.”<sup>563</sup> According to Newman, this scene was supposed to be in the final version of the film, but the studio cut the sequence “because they were afraid the audience wouldn’t understand what happened to the girl in the car; why was she suddenly not there?”<sup>564</sup> The UK version of the film with this key scene has only appeared once on DVD – barely mentioned, on the flipside of the original double-sided 2004 release, where director Sarafian notes in his director’s commentary that Rampling was indeed envisioned as a metaphorical figuration of the angel of Death. Otherwise, fans of the film will have to turn to

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<sup>563</sup> Quoted in Wheeler Winston Dixon, “Missing in Action: The Lost Version of *Vanishing Point*,” *Film International* (March 3, 2014), <http://filmint.nu/missing-in-action-the-lost-version-of-vanishing-point/>. For a detailed breakdown of the differences between the two cuts, see: “Vanishing Point Comparison: US Version / UK Version,” *Movie Censorship* (August 11, 2009), <https://www.movie-censorship.com/report.php?ID=4273174>. Accessed July 17, 2020.

<sup>564</sup> *Ibid.*.

YouTube, where the scene was posted for the first time four years ago, and continues to have a life of its own, with more than 54,000 views. The ghostly life of the sequence separated from the film is a fitting reflection of the film's resonance as 'spectral incognizance.'

The appearance of the figure of death is a common trope in horror, as is the mysterious hitchhiker/stranger who appears and disappears at the side of the road. As Bernice M. Murphy points out in her book-length study of a sub-genre she terms "highway horror," it is the highway itself that is "transformed from an everyday landscape into a purgatorial space in which the boundaries between life and death are blurred."<sup>565</sup> The roadside stranger who seems to co-exist in both the realm of the living and the dead has roots in both urban legend and folklore and myth. As Murphy points out, "In ancient Mesopotamian mythology, the dead arrived at the 'Land of No Return,' or the 'Great Below' by traversing the 'Road of No Return,' whilst in Norse mythology, the 'Helveg,' or 'Hel-Road,' had to be traveled in order to reach the domain of Hel, ruler of the world of the dead," while "the Anglo-Saxons believed that the dead travelled human-made roads as part of their wanderings in the underworld, and that crossroads were the thresholds where two worlds touched..."<sup>566</sup>

*Vanishing Point*, of course, is a film all about thresholds; thresholds of space, delineated by the interior/nest and exterior/shell of Kowalski's car, the borders between states, between urban and rural, between the road itself and what lies beyond; thresholds of perception, altered initially by speed, then increasingly by otherworldly forces, transmissions beyond the range of radio, ripping open a rift between the lands of the living and the dead on the road; and of course, thresholds of time, bending, and even breaking, the timeline between past, present and future, between living and dying, between automobility and the crash. The unique time-space of the threshold was one Bakhtin singled out in *The Dialogic Imagination*, describing it as "the chronotope of *crisis* and *break* in a life," explaining:

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<sup>565</sup> Bernice M. Murphy, *The Highway Horror Film* (New York: Palgrave MacMillan, 2014), 85.

<sup>566</sup> See Bernice M. Murphy, *The Highway Horror Film*, 85-86. In the second part of the quote, Murphy is quoting from Alasdair Wickam, *The Black Book of Modern Myths: True Stories of the Unexplained* (New York: Random House, 2011), 26.

The word ‘threshold’ itself already has a metaphorical meaning in everyday usage (together with its literal meaning), and is connected with the breaking points of a life, the moment of crisis, the decision that changes a life (or the indecisiveness that fails to change a life, the fear to step over a threshold). [...] In this chronotope, time is essentially instantaneous; it is as if it has no duration and falls out of the normal course of biographical time.<sup>567</sup>

That is certainly the case in *Vanishing Point*, where the time-space of the film is literally lifted out of the normal course of Kowalski’s biographical time, following the trio of opening sequences. Every moment following that lift, features Kowalski moving through one threshold to another, living essentially in the instantaneous time just before his death. Located within the chronotope of the threshold, there is one other specific chronotope that alters everything again – *the chronotope of the crash*. Unlike the chronotope of the threshold, time can be measured here – albeit only via the cinema. The measure of time in the chronotope of the crash is the measurement of time in the second collision; that split-second measurement allowed *only* by high-speed film, to capture the impact of the human body with the interior of the automobile. The space of this chronotope alters almost instantaneously with impact, crumpled, ripped open, reshaped and reformed into geometries often remarked upon afterwards as impossible. Arguably, this links the chronotope of the crash also with what Bakhtin describes in terms of the “chronotope of the miraculous word in adventure time,” where “time itself becomes to a certain extent miraculous.”<sup>568</sup> This description corresponds almost exactly to not only the filmic representation of crashes, post-driving safety film – in slow motion, hyper-aestheticized, magical, balletic – but also to the very real-life experience of crashes, which are often described as if time slows down and stretches out.

It is only near the end of the film when the narrative loops back on itself, repeating one of the opening sequences we saw at the beginning of the film, that we see Kowalski smile for the

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<sup>567</sup> Mikhail Bakhtin, *The Dialogic Imagination*, 248.

<sup>568</sup> Mikhail Bakhtin, *The Dialogic Imagination*, 154. As Bakhtin explains: The chronotope of the miraculous world, which is characterized by this subjective playing with time, this violation of elementary temporal relationships and perspectives, has a corresponding subjective playing with space, in which elementary spatial relationships and perspectives are violated. In the majority of cases, moreover, there is no trace of the ‘free’ relationship of a man to space that is affirmed in folklore and fairy tales—what we get rather is an emotional subjective distortion of space, which is part symbolic.” (Mikhail Bakhtin, *The Dialogic Imagination*, 155.)

first time in real time behind the wheel.<sup>569</sup> As he races past the flares on the ground that originally caused him to turn around and speed off in the opposite direction, this time he races straight at the steamroller blockade almost aglow, possibly happy for the first time, accepting the release death will provide (from his life, from the film, from perpetual purgatory behind the wheel). Close up shots of Kowalski's smiling face are intercut with shots of the milling crowd waiting for his arrival, young and old, families with kids, picnicking, lounging, laughing, all as the soundtrack blasts an upbeat, bluesy rock number "Over Me" by Segarini and Bishop. The combined effect of the visuals and soundtrack suggest to viewers that our anti-hero Kowalski will somehow escape unscathed. Instead, the car explodes as it hits the barricade. Music stops dead, leaving only the real-time sound of impact and explosion to fill out the film's soundtrack. The explosion slows down a bit in slow motion, in a wider shot, as the hood of the car flips over and over in the air. An even wider shot follows, from further back, showing a perspective framed between the two steamrollers; the car is standing on its nose now, engulfed in flames. Police officers enter the shot seconds later, guns drawn as they race to the wreck, with firemen following close behind to battle the flames. A title appears at the bottom of the screen: 'CALIFORNIA – SUNDAY – 10:04 A.M.'

In the closing sequence that follows we watch as most of the crowd dissipates, leaving us to wonder: did they get what they were hoping for? The remaining people gather closer as the authorities converge on the wreckage. The fact that it is 10am on a Sunday in a small town in 1971 means the spectators are likely skipping church to be part of this scene. Or, arguably, this is church. These are services. Dedicated to the fiery death of individuality, and the defense of the institution of the nation, the law, and all those opposed to speed (both the drug, and the equally addictive high velocity). In the end, only the DJ Super Soul seems in pain. The rest mill around, waiting...for whatever comes next.

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<sup>569</sup> The only other time we see Kowalski enjoying any kind of happiness is in flashback.

## **HORROR ON THE HIGHWAY (AND OFF): *DUEL*, *TARGETS*, *BADLANDS***

Of course the first conflation of highway and horror occurs in the late 1950s in the form of the driving safety gore films discussed in depth in the previous chapter. The two don't really collide in narrative film for over a decade. Author Bernice M. Murphy recently identified this group of films as the sub-genre "Highway Horror," in her book of the same name. She explains:

The Highway Horror film is an offshoot of the of the wider American horror film tradition that has certain similarities to the road movie genre but which also dramatizes its own culturally and historically specific sets of concerns explicitly related to the societal impact of mass automobility and the creation of the Interstate Highway System (IHS). In the Highway Horror film, journeys made via the highway inevitably lead to uncanny, murderous and horribly transformative experiences. The American landscape, though supposedly 'tamed' by the highways, is, by dint of its very accessibility rendered terrifyingly hostile, and encounters with other travelers (and with individuals whose roadside businesses depend upon highway traffic) almost always have sinister outcomes.<sup>570</sup>

Murphy goes on to argue that these films reflect the "profound unease about the harm caused by the rapid pace of technological process in the post-World War II era," exploiting the resulting "anxiety related to the effects of the increasingly transitory nature of American life."<sup>571</sup>

I would argue, however, that the appearance of this sub-genre in the late 1960s is *also* the result of the paradigm shift resulting from the publication of Ralph Nader's book, *Unsafe at Any Speed* in 1965. Although Murphy doesn't make this connection, she does mention Nader near the end of her book, pointing out that many of the case-studies featured in his book "read like real-life horror stories."<sup>572</sup> In the Highway Horror film we see Nader's concerns regarding both the dangers of the open road and the distinct unsafety built into the nest and the shell of the automobile play out on screen. Three films in particular pave the proverbial way for the ongoing genre cycle of Highway Horror films that continues to this day, each marking the directorial debut of three crucial New Hollywood directors: *Targets* (Peter Bogdanovich, 1968), *Duel* (Steven Spielberg, 1971) and *Badlands* (Terrence Malick, 1973). The narratives of the three

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<sup>570</sup> Bernice M. Murphy, *The Highway Horror Film*, 2.

<sup>571</sup> Bernice M. Murphy, *The Highway Horror Film*, 2-3.

<sup>572</sup> Bernice M. Murphy, *The Highway Horror Film*, 83.

films are quite different from each other. In *Duel*, conflict and the plot are triggered when David Mann (Dennis Weaver) overtakes the rusted smoke-churning Peterbilt 281 semi-truck on the freeway. The rest of the film follows the faceless trucker terrorizing Mann on the road until their climactic showdown. Inspired by the true story of spree-killer Charlie Starkweather, *Badlands* follows in the tradition of *Bonnie and Clyde*, following Kit (Martin Sheen) as the homespun spree killer who takes his teenage girlfriend Holly (Sissy Spacek) on a fatal roadtrip that finally ends in the badlands of South Dakota. Similarly, *Targets* is inspired by real-life mass murderer Charles Whitman, known as the Texas Tower Sniper, who shot and killed seventeen people and injured thirty-one more from a tower at the University of Texas in Austin in 1966. The film alternates between the thinly fictionalized story of the killer, Bobby Thompson (Tim O'Kelly) and the last days of a fading horror film star, Byron Orlok (Boris Karloff), culminating in a climactic sequence at a screening of Orlok's final film, of Thompson shooting at people in their cars at a drive-in theater from behind the screen.

In all three films the qualities commonly associated with the anti-heroes of the road movie – rugged individualism, rebellion from societal norms and a high degree of mobility – are mutated and exploded, becoming the monstrous qualities that make-up the sociopathic killers in these Highway Horror films. While the road movie often offers a critique of conformity as the anti-heroes pass through mainstream America, for the most part insulated safely in the nest in a shell of their automobiles, in the Highway Horror film, automobility is often transfigured as a tool that eases the act of killing. This can be seen in two senses. In the first sense, the automobile allows these killers access to virtually any space thanks to a modern world crisscrossed with roads; that same myriad of roads also provides the killers with near-infinite routes of escape. In a second sense, and very literal interpretation of Nader's work, the automobile is exposed as a fragile ecosystem in these films; not only is the protective layer of the shell perilously thin, the nest of the automobile, and even the seemingly wide-open space of the road (or in the case of

*Targets*, the parking lot of a drive-in movie theatre), are actually traps.<sup>573</sup> Many times it is precisely because of the killer's mastery of automobility that gives him/her the upper hand against his/her victims, and society in general. Just as common is the victims' reliance on automobility which ultimately results in violence or death (in another direct echo of Nader's work). While Murphy argues that the main character in the Highway Horror film is often "an ordinary person just trying to [go] his or her or her way [to get] to their intended destination in one piece,"<sup>574</sup> which is certainly the case in *Duel*, I would argue these films are just as likely to make sociopathic killers the main characters, with victims being relegated to mere supporting roles or even extras, as we see in both *Targets* and *Badlands*.<sup>575</sup>

There are a number of formal characteristics shared by road movies and Highway Horror films in the post-Nader world. Murphy points out two – "frequent use of traveling shots and the attempt to place the spectator in the position of character undertaking the journey."

Paraphrasing Laderman, she then goes on to also include the common road movie motifs of montage and frame compositions that incorporate windscreens and mirrors, as "the reflection of characters in glass and mirrors...serves often as a literal projection of character onto the car, and into the space being travelled."<sup>576</sup> Murphy also mentions the prevalence of close up shots of the dashboard, as a means of amplifying narrative tension (the car is low on fuel or overheating, or the radio either mysteriously stops working or suddenly broadcasting from a supernatural source). What she doesn't mention is how these shots also serve a similar purpose as the mirrors, reflecting back the hybrid assemblage status of the Driver-Car. This linkage of the human and

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<sup>573</sup> Although *Night of the Living Dead* (George Romero, 1968) is not a Highway Horror film, it is telling that the opening horror sequence culminates in the family automobile of Barbra (Judith O'Dea) and Johnny (Russel Streiner), when she flees to the car assuming it will offer escape. Instead, with no keys, the fragility of the shell is quickly revealed with the zombie shatters it with a rock. Essentially what we see here is a trial run of the pivotal plot question of the film – is a home (automobile or house) a shelter or a trap?

<sup>574</sup> Bernice M. Murphy, *The Highway Horror Film*, 10.

<sup>575</sup> This tendency becomes even more common with the next cycle of road movies in the late 80s/early 90s, as seen in *The Hitcher* (Robert Harmon, 1986), *Henry: Portrait of a Serial Killer* (Henry McNaughton, 1986), *Kalifornia* (Dominic Sena, 1993), *Natural Born Killers* (Oliver Stone, 1994) and *Crash* (David Cronenberg, 1996) -- which will be discussed in more detail later in this chapter.

<sup>576</sup> Bernice M. Murphy, *The Highway Horror Film*, 12; the second half of the quote paraphrases David Laderman, *Driving Visions: Exploring the Road Movie*, 15.



machine is crucial to the Highway Horror film, and yet another symptom of the cultural fears of driving following the publication of Nader's book.

### ***DUEL: THE HIGHWAY AS HUNTING GROUND***

In *Duel*, the viewer is carefully aligned with the protagonist, Driver-Car David Mann (Fritz Weaver) in his red Plymouth Valiant, from the moment the film opens, first on a purely sonic level as we hear his footsteps on the concrete over a black screen, then, in a series of lap-dissolved shots photographed from the Driver-Car's perspective as we back out of the garage, drive through Los Angeles, then out of the city. As Traveler-Spectators, we, too are leaving the city along with him. This sequence of pure automobility lasts almost four minutes before we finally see the shell of the car we have been traveling in. Thirty seconds after that we meet our driver, whose perspective we have been viewing and navigating the world through in a handheld shot that starts as a POV shot through the windshield (echoing the lap-dissolved shots that started the sequence) before tilting up to frame Mann's face in the rearview mirror. The ongoing internal monologue of Mann heard in voiceover, punctuated by his occasional lines directed at his highway nemesis, effectively seals us in the car with him. His nest is our nest, and we all hope the shell will hold. The threat posed by the imposing semi-truck is one of both size, and in a related issue, impossibility of visibility. Through a conspiracy of the scale of the truck and the *mise-en-scène* we only ever see the menacing driver's feet and legs (at a gas station) or his arm, sticking out of the window of the truck. There is no human face to identify, only the 'face' of the Peterbilt semi-truck. As Spielberg points out in his director's commentary on the 2004 special edition DVD of the film, the 1955 Peterbilt 281 was 'cast' precisely because the long hood combined with its split windshield and round headlights gave the vehicle a distinct face that added to its menacing personality.<sup>577</sup> Spielberg also reveals that the multiple license plates on the front bumper of the truck were meant to subtly suggest that the truck/driver is a serial killer

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<sup>577</sup> Steven Spielberg. Director's commentary. *Duel*, special edition DVD, directed by Steven Spielberg (Universal City, CA: Universal Pictures Home Entertainment, 2004).

who has “run down other drivers in other states,” connecting the film more closely to both *Targets* and *Badlands* than a single screening might otherwise suggest.<sup>578</sup>

Inspecting the credits closely will reveal that the evil truck driver is played by Cary Loftin, stunt driver/coordinator and actor first seen clearly in *Bullitt* but with an actor’s filmography that dates back more than 3 decades before that (almost always uncredited). Loftin remains one of the preeminent stuntmen in film history – notable to this study as stunt driver/double/coordinator for *Bonnie and Clyde*, *Bullitt*, and *Vanishing Point* before working on *Duel*. Casting Loftin as both driver-as-actor and driver-as-stunt-driver inscribes the inevitable crash into every frame of the film. Existing both in and outside the diegesis, Loftin is a chorus of pure automobility. His presence alone signals the crash as unavoidable, imminent.

When the crash comes as it inevitably must, it incorporates imagery from the infamous chicken run in *Rebel Without a Cause* (also invoked that year in the opening of *Two-Lane Blacktop*), with Mann leaping out of his car just before driving head on into the massive truck – as well as the gladiatorial trappings of a joust popularized in the crash tests performed before an audience very year at the Annual Stapp Car Crash Conferences. The ending is both triumph of David (Mann) over Goliath (truck) and man over beast, as the monstrous truck goes over the cliff with the car, accompanied by the sounds of a supernatural creature akin to *Godzilla*. The crash sequence plays out in the longest slow motion shot to date in narrative cinema in 1971, stretching out for over a minute, as the truck and car, now fused into an even more monstrous amalgam of the two, tumble and tear each other apart as they careen over the side of the cliff. As Nigel Norris describes in his book, *The Cinema of Steven Spielberg*, in a chapter devoted to *Duel*: “The vehicles plummet to the sound of a dying monster from an existing movie, simultaneously suggesting a primal sub-humanity, ascribed to the totally anonymous driver, and sentience, ascribed to his anthropomorphised truck.”<sup>579</sup> The death of the Driver-Car is symbolized here by a series of tableaux shots echoing compositions from the driving safety gore

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<sup>578</sup> Ibid..

<sup>579</sup> Nigel Morris, *The Cinema of Steven Spielberg: Empire of Light*, (New York: Columbia University Press, 2007), 31.

films, but with the human bodies somehow erased, leaving us instead with images of twisted metal and dripping fluids of the truck (and no sign of the driver). Final death is signaled when the wheel jutting up into the air finally comes to a stop.

### **TARGETS: TAKING AIM ON THE DRIVING DEAD**

In *Targets* we are offered a radically different alignment of automobility and violence. While automobility is again seen as a tool wielded in a deadly fashion, here, as crucial to the killer's murders as his extensive collection of guns, at the same time it is also the victims' relationship to automobility that seems to conspire against them, resulting in death and injury on a mass scale. Although lesser known and less-discussed than either *Bonnie and Clyde* or *Easy Rider*, *Targets* is an equally-important mark of the zeitgeist of New Violence in the New Hollywood of the late 1960s, and a clear marker of the metamorphosis of horror, both onscreen and off, that was occurring in this country in 1968.<sup>580</sup>

Telling two stories at once, first-time director Peter Bogdanovich juxtaposes the self-reflexive tale of horror actor Byron Orlok (Boris Karloff) promoting the last film of his career – *The Terror* (Karloff's 1963 starring turn for Corman at A.I.P.) – with the burgeoning horror of a white middle-class suburban husband/son transforming into a gun-wielding mass murderer.<sup>581</sup> While Bobby Thompson's initial foray into murder is contained in the well-known space of the family home, starting with his own wife and mother, the two murderous sequences

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<sup>580</sup> Newly appointed head of the MPAA, Jack Valenti singled out the film in a 1969 editorial for *The Washington Post* as “a chilling, horrifying piece of realism.” (Jack Valenti, “Valenti: How Hollywood's Establishment Helps the Young,” *The Washington Post* (April 13, 1969). <https://search.proquest.com/hnpwashingtonpost/docview/143575817/752D619491124AEAPQ/> Accessed July 25, 2020.) Paramount Studios, who purchased distribution rights for the film shortly before the assassinations of Robert F. Kennedy and Martin Luther King, promoted *Targets* as “message film” about gun control, adding a prologue connecting the film's narrative to the world's deadly events. (*Targets*. Directed by Peter Bogdanovich. Paramount DVD, 2013.)

<sup>581</sup> The limitations of the film's production decreed by producer Roger Corman helped to set the parameters of self-reflexivity no doubt inspired by the French New Wave. (See Kevin Thomas, “Critic-Into-Film-Maker in the French Style,” *The Los Angeles Times* (June 4, 1967).) As Bogdanovich explained in a 2013 interview: “Roger [Corman] was owed two days work by Boris Karloff, and he asked me if I would take on the assignment of shooting 20 minutes with Karloff in two days, taking 20 minutes of footage from a previous film, *The Terror*, and then shooting with other actors for 10 days to shoot another 40 minutes, so I'd have a new 80-minute Karloff film.” (Noel Murray, “Peter Bogdanovich on *Targets*' History and Unfortunate Continued Relevance,” *The Dissolve* (August 21, 2013). <https://thedissolve.com/features/movie-of-the-week/99-peter-bogdanovich-on-targets-history-and-unfortuna/>. Accessed July 25, 2020.) As long as Bogdanovich followed these instructions and kept the film under budget (\$125,000) he could make whatever kind of film he wanted. Knowing these constraints goes a long way toward explaining the two distinct narratives that the film presents, building to the climax where the storylines and our characters meet (at the Reseda Drive-In Movie Theater). Conceptually, the deft balance between the two storylines is utterly without precedent in 1968.

that follow occur outdoors are trained on spaces of hyper-automobility – a Southern California freeway and the Reseda Drive-In Movie Theater. As discussed earlier, the space of the automobile was considered an extension of the intimate space of the home by the late 1960's. Seen in this way, one can read the killer, in effect, repeating his initial crime over and over again – only now training his rifle sights on the intimate nests of other families, both on the road and at the drive-in.

Before Bobby Thompson begins his first shooting spree from the top of a refinery tank near the drive-in, with clear visual access to the nearby freeway, he domesticates his space. First, he methodically lays out his array of guns and ammo, recalling their displayed arrangement in his father's office at home. Then he pulls out a Pepsi and a sandwich from the brown paper bag and has what appears to be a relaxed lunch, looking almost like a little boy. When he's done, he lays down, takes aim, and the shootings begin. Like *Duel*, we again are presented with a vision of the highway as hunting ground, only this time from a static vantage point overlooking the freeway, put into focus via a rifle sight. The soundtrack is pure automobility. Again, there is no music, even the sound of the refinery we hear when he first drove up, is now drowned out by the sound of wind and the overwhelming hum of the nearby freeway – punctuated by gunfire. The gunsight POV we first saw trained on Orlok in our introductory scene to Bobby reappears with a vengeance.<sup>582</sup> It is essentially a combination of a very old cinematic device – the mask which blacks out the rest of the frame save for a small circle in the middle separated into four equal quadrants by the crosshairs – and a device still very new to the cinema – the zoom lens, invented only a decade earlier for the 35mm motion picture camera in France. Here, the zoom is essentially used like a telephoto lens; i.e. we do not see it perform an actual zoom. Rather, with the switch to this POV and suddenly perspective on the freeway is much closer and flattened –

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<sup>582</sup> After the opening scene with Orlok, there is a sudden shift in scenes that is simultaneously our first shift in storylines. The first shot is shocking – a target superimposed over Orlok's head from a distance, then a reveal of our other starring character, Bobby Thompson, at the gun store across the street looking at the rifle in his hands approvingly as he announces "I'll take it." It is the only time that the two storylines explicitly merge, with our two starring characters sharing the same cinematic space, before the climactic end sequence at the drive-in theater.

and encircled by the crosshairs of the mask over the frame. Only the target exists. Everything else is black.

Discussing the early use of the zoom in the 1960s, film theorist Amy Rust points out: “Most familiar to filmgoers for its use in television journalism and broadcast sports, the zoom offered remote access to people and places in the midst of ongoing, nonfictional events. As a result, it proved attractive to practitioners of Direct Cinema, for whom the technology contributed to the unimplicated immediacy, the authenticity, that movement embraced.”<sup>583</sup> Here, too, the use of the POV is chillingly authentic, both for its realism and its encompassing alignment of our vision with the killer’s. The views of violence would have, no doubt, resonated on an even more intense level of realism with filmgoers in 1968, who had lived through the assassination of John F. Kennedy, as the sequence arguably replays the shooting sequence of exposed figures in an automobile, made world-famous by the Zapruder footage. While the dangers of automobility are apparent in *Duel* in its David-versus-Goliath on-road showdown of tiny car and massive semi-truck, in *Targets* the threat to automobility is invisible and, as is so common in the crash, there is no warning. Indeed, the only way to perceive such an attack by sniper fire would be by using high-speed cameras, marking the time-space of attack as purely cinematic, an event only perceptible in slow motion (or stills, alá Zapruder).

Bobby makes his escape as sirens approach, blasting a man at the refinery with his shotgun along the way. He jumps in his Mustang, rock and roll blasting on the radio, and immediately narrowly averts getting into a crash, then barrels through a red light. Seeing this, a nearby patrol car flips on its lights and sirens, whips a u-turn in the middle of Reseda Boulevard and gives chase. What follows is a scene of pure automobility, showcasing Bobby’s Ford Mustang as an invaluable tool in his series of crimes, again reminiscent of the driving safety films with its lo-fi, low-budget representation of realism. The chase sequence that follows features a multiplicity of pans shot from the passenger seat, back seat or driver’s seat of Bobby’s

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<sup>583</sup> Amy Rust, *Passionate Detachments*, 117.

Mustang as the car meanders through the streets of Reseda. The sequence is punctuated by close ups of Bobby's foot on the gas, and his face in profile as he drives with steely determination, as well as the requisite rearview mirror POV showing cops either following or not being there. The sequence culminates with Bobby's escape in plain sight by putting up the electric top of his convertible and pulling into the parking lot of the Reseda Drive-In Theatre, where the marquee reminds us that Byron Orlok will be making a personal appearance that night.

Bobby joins the half-dozen or so other cars already parked in the lot waiting for the screening. Once the convertible top is up, Bobby's nest is secure. Enough so that he begins feeding large rifle shells into a clip, alternately munching on another sandwich. The parking lot quickly fills as the sun goes down. At dusk, Bobby carries his obviously heavy bag of weapons past a playground near the foot of the giant screen (giving 21<sup>st</sup> century viewers an idea of the scale of the location and night out a trip to the drive-in would offer families in the late 1960s.). Even in seemingly plain sight no-one even turns to look at him as he disappears through a door at the foot of the screen.

As the screening of *The Terror* (Roger Corman, 1963) starts the sound is faraway and echoey, a chorus of music and dialogue reproduced through a series of small wired speakers clipped to closed car windows, (effectively fusing the cinema, automobility and sound into the nest). There is a slow zoom in on the screen where we see Karloff and a young Jack Nicholson, before the zoom eventually hones in on the grain of the film...then the darkness behind it...and suddenly we are behind the screen. A slow crane shot rises up past the support irons and girders that support the screen to reveal Bobby, gun poised and pointed through a small hole in the giant screen. Again we get our gunsight/target POV – this time scanning the parked cars – intercut with an ECU of the rifle's muzzle just at the edge of the hole in the screen. His first target is a man lit up brightly in a phone booth; a breath is taken, the trigger squeezed, and his first victim falls with crack of glass. Bobby's next target(s) are a couple in a car with the light on, starting with her, then him. Then another man who tries to get out of his car. Most people don't

even hear, their nests sealed, speakers on the window. Each person/couple/family are isolated in their cars, each enjoying the film in a world of their own making thanks to the high modernism of automobility in the late 1960s. Even Orlok notes while watching his film within a film from the vantage point of his limousine: “Strange not to hear any reaction, isn’t it?”

As the sequence steadily escalates we see that any form of illumination within the nest transforms the automobile’s occupants into targets. For some it is the mere illumination of the dash; for others, the overhead lights turned on merely to find something in the dark car. Most common is the standard safety feature of the overhead light coming on when a car door is open; now an immediate revelation that the nest has been unsealed, transforming both driver and passengers to the same level of target. As the occupants of the cars try to communicate with the cars next to them to spread news of the sniper, the first reaction is often to open the door, thereby making themselves targets. The fact that nests are sealed off from each other – via metal, glass and sound (speaker/radio) – slows down transmission of the news of their imminent danger. For many, it costs them their lives.

In this sequence Bogdanovich introduces the snap zoom as the cinematic expression of the rifle shots. Predating Sam Peckinpah’s more famous use of the technique the following year in *The Wild Bunch*, its use in *Targets*, paired with the crosshairs POV remains singularly striking. In essence our own vision is rushed and flattened towards each target, approximating a bullet’s POV from the sniper’s rifle. The resulting sensation is like *we* are both crashing into each of the parked cars that Bobby makes his targets, and crashing into the film itself with each shot. To the Traveler-Spectator, each snap zoom is embodied as a crash. Instead of another car being the supplier of blunt force trauma to the bodies of the passengers it is the much smaller, aimed bullet delivered with purposeful, pinpoint precision. The result is the same: the nest is penetrated, opened up, revealed to be all too vulnerable. The shell provides no safety at all. The windscreen, which is so carefully aligned with the outdoor movie screen for proper viewing experience for the entire family, for all the occupants in the car, also provides a window *into* the

world of the automobile's nest. In fact, it is precisely the most vulnerable and potentially deadly parts of the human anatomy that are exposed by the windscreens: head, chest, torso. In that sense, the windscreen itself serves as a sort of target, making the task of the sniper easier – something assumedly quite helpful given the fact that the rifle sight (like the zoom itself) also limits the vision of the person looking through it. Discussing the use of the zoom in *Dirty Harry* (Don Siegel, 1971), Amy Rust points out “On the one hand, the scope narrows the sniper’s vision such that he loses sight of his victims. [...] In registering these limits, zooms disclose the vulnerability the men’s mastery disavows. More important, they unconceal the extent to which fact and meaning, surveillant and surveilled, are joined and at the same time separate.”<sup>584</sup> In the case of *Targets*, the fine focus delivered in the explosive bursts of the snap zooms, eliminates the broader field of vision necessary to see the approach of the angry crowd – led by Orlok and a man who had a handgun in his glovebox – and the approaching patrol cars which we can hear but not see. This limitation of vision would of course make the sniper a target as well, if not for his unique hiding spot behind the movie screen, so that in essence the violence is originating and erupting from the screen itself.

Here we see perhaps the purest fusion of automobility, the cinema, vision and violence of any film of this era. While the vision of the cars’ occupants is trained on the widescreen vista of the film being projected, they cannot see the hole in the screen, or who lurks behind it. When angles are reversed we see that not only does the hole in the screen provide an opening for the killer’s insertion of violence by gunfire, it is the screen itself being used to steady the gun; Bobby lays the tip of the barrel against the screen’s edge, using it to pivot smoothly, steadying his aim, making even his shots even more sure. Here, the cinema conspires with automobility in the shooter’s attack. The vision machine is fatal. Again echoing Nader, the nest of the automobile is revealed as immanently unsafe. Automobility itself becomes a trap. As panic spreads in the drive-in parking lot cars roar to life, their lights illuminating the cars in front of them, around

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<sup>584</sup> Amy Rust, *Passionate Detachments*, 139.



them, providing more well-lit targets for the sniper. When they try to escape, they collide, crash, bottleneck, creating a traffic jam, which in results in an even larger trap of this collection of fragile nests, and even easier targets for the sniper to access.

In this climactic sequence of *Targets*, we see Ralph Nader's warning in *Unsafe at Any Speed* spelled out before our eyes, albeit in a different type of crash (as well as an additional and sadly, all too forward-thinking warning of gun violence to come). Here, the car is no longer the topography of our intimate being, as Bachelard describes. Instead, it marks the failure of the dream, and a revelation of the dangerous fantasy. Not only does the relationship between the nest and the shell, the inside and the outside, break down, but so too do the roles within the nest. No longer are there separate categories of drivers or passengers; now all that exists are targets. This, too marks the end of evanescent reality so crucial to the enjoyment of the experience of automobility. No longer does automobility offer a detached world or passive viewers, but rather an all-too solid, jagged threatening reality, and a desperately active viewer suddenly forced to adjust to it crashing in. The collapse of the primacy of glass, in the form of the shattering/fragmentation of screens which, up until this point have been the locus of vision and access to the world outside, now shuts down this access. The protective membrane of the screen also no longer works as a 'block' (its other meaning) – breaking down the boundary between interior/exterior, nest/shell – in fact the property reverses its value, drawing attention rather than deflecting. No longer are screens, as Elsaesser and Hagener describe, “something that stands between us and the world, something that simultaneously protects and opens up access [...]”<sup>585</sup> Instead, the windscreen functions as the outer edge of a *target*, both framing and containing the human body flattened out behind the glass dead center...bullseye.

## **CONSTRUCTING CELEBRITY/KILLERS: 1950s NEBRASKA, *BADLANDS* & BEYOND**

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<sup>585</sup> Thomas Elsaesser and Malte Hagener, *Film Theory: An Introduction Through the Senses*, 43.

While the notion of celebrity is largely submerged in *Targets* – with Karloff-as-Orlok’s star far outshining that of mass murderer O’Kelly-as-Thompson-as-Whitman – in *Badlands*, the issue of the celebrity takes center stage in the form of a celebrity killer enabled by and seemingly fused with automobility. We accompany Kit Carruthers (Martin Sheen) on his killing spree across the Midwest behind the wheel with his young girlfriend Holly (Sissy Spacek) in the passenger seat as Traveler-Spectators, observing as he tries to construct a mythic version of himself. While the modern serial killer is known for collecting mementos of his/her kills, Kit prefers to leave mementos behind at various points on the road for others to find.<sup>586</sup> In this era before the idea of a serial killer celebrity was established, there are no real precedents for Kit to follow, so he is literally making it up as he goes along. As such, many of his efforts seem naïve, futile, even laughable, and certainly revealing of his delusional, sociopathic, narcissistic state. For Kit, Holly’s presence on the spree serves a related purpose to the mementos he leaves behind. To him, her role in the myth he is attempting to craft is a supporting role as star-crossed lover, witness and storyteller.<sup>587</sup> She is, after all, the only living witness to most of these crimes. Her hands off role in the crimes guarantees a certain objectivity obtained from a critical distance – at least as far as Kit is concerned.

It is Holly’s voice that introduces the second level of celebrity in the film – Kit’s striking resemblance to James Dean – which she confesses in the opening minutes of the film: “He was handsomer than anyone I’d ever met; he looked just like James Dean.” In their second meeting,

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<sup>586</sup> After the killing of Holly’s father, which initiates the spree, and before he sets the house on fire, Kit leaves a recording of his voice playing on a record player confessing to the murder (and implicating Holly) and professing their forthcoming suicides, to throw authorities off the track. Later, Kit records his homespun wisdom onto the Dictaphone of a potential victim, buries a time capsule of their belongings, launches another collection of personal belongings in the air via a weather balloon, collects a rock to mark his first (and only?) sexual encounter with Holly, then later leaves a rock sculpture by the side of the road where he is eventually captured. Malick described his original vision behind this in a rare interview from 1974 shortly after the release of *Badlands*: “Kit thinks he’s a character of incredible importance, but he can’t measure his own importance. He builds a rock pile marking the place where he’s arrested, he buries things in the desert; he leaves his ‘relics,’ thinking that in the future people will make money on them and come to realize his place in time. In the end, the sadness emanating from the film partially comes from the fact that Kit’s most well-placed biographer, Holly, is living another life. And so his story dries up without leaving a trace.” (This 1974 interview with Terrence Malick was originally conducted by G.R. Cook and appears in *Filmmakers* Newsletter (Ward Hill, MA), June 1974, reappears here: <https://cinephiliabeyond.org/badlands-terrence-malick-made-directorial-debut-filmmakers-can-dream/>. See also B. Walker “Malick on *Badlands*,” *Sight and Sound* (Spring 1975), <https://www.eskimo.com/~toates/malick/art6.html>. Both accessed July 26, 2020.)

<sup>587</sup> Neil Campbell points out: “Following the tradition of so many youth texts, Kit resents restrictive controls and being ‘too much like others,’ for he has ‘stuff to say’ but fears no one was ‘going to listen.’ So Holly becomes both his audience and mythographer [...]” (Neil Campbell, “The Highway Kind: *Badlands*, Youth, Space and the Road,” *The Cinema of Terrence Malick: Poetic Visions of America*, Ed. Hannah Patterson (New York: Columbia University Press, 2007), 46.)

when Kit shows up at her house unannounced, Holly quips sarcastically (this time out loud): “Well, stop the world,” which is the greeting Judy (Natalie Wood) offers as an introductory jab to Jim (James Dean) on the first day of school. Later still, in the Robinson Crusoe-inspired home they build in nature, they take on the names of James [Dean] and Priscilla [Presley]. But Holly is not the only one to notice the resemblance. Near the end of the film, the arresting officer gushes to Kit and the officer driving the police car about how much he looks like James Dean – a compliment which makes Kit grin wide. But the resemblance of Kit to James Dean as both the actor and iconic image of teen rebel he created in his short career runs deeper than that. Many critics have pointed out that actor Martin Sheen is, in essence, playing James Dean playing Kit. As Gabriella Blasi argues in her 2014 essay: “Kit as ‘James Dean’ in *Badlands* embodies the rebellious and tragic figure of teenage disillusionment that actually longs for recognition in an equally ideological system and order of things.”<sup>588</sup> While Michael Nollo do even went so far as to declare: “In 1973, Martin Sheen did James Dean better than James Dean did James Dean.”<sup>589</sup> Director Terrence Malick pointed as much himself in a rare 1974 interview: “Kit sees himself as a rebel without a cause [...]”<sup>590</sup> And in fact the overt connection actually precedes the film, being built into the film’s advertising, with the movie posters proclaiming:

He was 25 years old. He combed his hair like James Dean.  
He was very fastidious. People who littered bothered him.  
She was 15. She took music lessons and could twirl a baton.  
She wasn’t very popular at school. For awhile they lived together in a tree house.  
In 1959, she watched while he killed a lot of people.<sup>591</sup>

While all Dean’s character, Jim Stark, wants in *Rebel Without a Cause* is his father’s approval, Kit goes one step further in *Badlands* and, in essence, *becomes* Holly’s father.<sup>592</sup> As

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<sup>588</sup> Gabriella Blasi, “The Orchid in the Land of Garbage, An Ecocritique of Terrence Malick’s Film *Badlands* (1973)” *Environmental Humanities*, Vol. 5 (2014), 63.

<sup>589</sup> Michael Nollo do, “Under the Influence: *Badlands*; Why the 1970s American Outlaw Will Never Go Out of Style,” *InsideHook* (August 3, 2017). <https://www.insidehook.com/article/style/under-the-influence-badlands>. Accessed August 7, 2020.

<sup>590</sup> Interview with Terrence Malick originally appeared in Michel Ciment, *Positif*, No. 170 (June 1975). Reprinted in Paul Maher, Jr., *All Things Shining: An Oral History of the Films of Terrence Malick*, 5<sup>th</sup> edition. E-book, self-published, 2018. Location 447.

<sup>591</sup> This is the text that appears on almost all the original advertising for the film: posters, half-sheets, one-sheets. Reproductions are still available and cheap on eBay. Start your search here: <https://tinyurl.com/y6mnf3rg>

Barbara Jane Brickman points out, the process which begins with the killing of Holly's father is completed when Kit takes the rich man's Panama hat, identical to the one Holly's father was wearing at the beginning of the film, "which makes him physically resemble Holly's father."<sup>593</sup> At the core of her argument, Brickman contends that the entire film is actually a narrative of Holly's making; while "*Badlands* revisits what might be called the primal scene of teen film, paying tribute to its most legendary icon, James Dean," the film is simultaneously rewriting that scene from a female perspective.<sup>594</sup> Key to Brickman's feminist reading of the film is the location of Holly's voiceover narration from some undefined point in the future; a future sometime after the crimes, arrests, Kit's electrocution and her marriage to the son of the lawyer who defended her.<sup>595</sup> Central to Brickman's reading is no less than James Dean:

Holly's retrospective point of view reveals an ironic, at times cruel, distance from the male teen idol, and perhaps more important, her fantasy also *involves* her in a violent refusal of the patriarchal home, emphasizing the capacity of female adolescent fantasy to rewrite the conservative resolutions of Hollywood films. In *Badlands*, Holly, the supposedly simple teenage girl, proves to be an active, even destructive fan who has an agenda and fantasy all her own.<sup>596</sup>

Ultimately, Brickman argues, "what the film might be dramatizing is a female spectator's revision and humiliation of James Dean."<sup>597</sup> From the beginning, Kit comes across as a failure, from his work as a garbageman, then at a feedlot, to his performance in their first and possibly only sexual union ("Is that all there is to it?" Holly asks afterwards; "Gosh, what was everybody

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<sup>592</sup> Kit's conservatism is on display at various points throughout the film, enunciated most clearly in the form of one of the mementos he leaves behind – a recording of his homespun homilies on the Dictaphone at the home of the rich family (who, tellingly, are the only other witnesses he spares): "Listen to your parents and teachers. They got a line on most things, so don't treat 'em like enemies. There's always an outside chance you can learn something. Consider the minority opinion, but try to get along with the majority of opinion, once it's accepted."

<sup>593</sup> Barbara Jane Brickman, "Coming of Age in the 1970s: Revision, Fantasy and Rage in the Teen-Girl *Badlands*," *Camera Obscura* 66, Vol. 22, No. 3 (2007), 42. Critic Neil Campbell argues that it is precisely this ascension to the father's role that drives Kit's actions and, by extension, the narrative of the film and that by "*becoming* a father to Holly and about finding a level of acceptability within the community in which he lives." (Neil Campbell, "The Highway Kind: *Badlands*, Youth, Space and the Road," 42.)

<sup>594</sup> Barbara Jane Brickman, "Coming of Age in the 1970s: Revision, Fantasy and Rage in the Teen-Girl *Badlands*," 29.

<sup>595</sup> In the last voiceover of the film, Holly tells us: "Kit and I were taken back to South Dakota. They kept him in solitary so he didn't have a chance to get acquainted with the other inmates, though he was sure they'd like him, especially the murderers. Myself, I got off with probation and a lot of nasty looks. Later I married the son of the lawyer who defended me. Kit went to sleep in the courtroom while his confession was being read, and he was sentenced to die in the electric chair. On a warm spring night, six months later, after donating his body to science, he did."

<sup>596</sup> Barbara Jane Brickman, "Coming of Age in the 1970s: Revision, Fantasy and Rage in the Teen-Girl *Badlands*," 29.

<sup>597</sup> Barbara Jane Brickman, "Coming of Age in the 1970s: Revision, Fantasy and Rage in the Teen-Girl *Badlands*," 36.

talking about?”). This compelling reading of the film could certainly explain the disappointing character arc of Kit, starting as a handsome rebel without a cause, but ending up a double for her father (who his rebel self killed at the beginning of the film, only 80 minutes earlier), and in the end, is executed for his crimes. As Brickman convincingly sums up with regards to the amazing powers of Holly: “She composes the voice-over and invents the male lover who will be her companion. She can even invent dialogue for him and dress him like James Dean, going as far as giving him Dean’s mannerisms. However, unlike Dean who died tragically young as his career was taking off, Holly’s leading man outlives his welcome and must be killed off.”<sup>598</sup>

I would argue, however, that it is precisely Kit’s hard-wired connection to James Dean that dooms him. After all, it is Dean’s death by fiery car crash that establishes his legend, and earned him immortality.<sup>599</sup> Although Kit is never in a crash, the specter of the crash certainly haunts the couple at all times in the car. As famous outlaws on the run, and especially as inheritors of the Bonnie and Clyde myth, the Traveler-Spectator expects the duo to meet some form of fiery end. At the very least, there is no doubt that Kit, as the ghost of James Dean, is doomed. Like him, Kit is a ghost already, who only still exists within the frame of the film, and the mementos he carefully left behind in plain sight. Even the way that James Dean’s myth was made informs Kit’s self-aware mythmaking, misguided as it may be. As Amy Gangloff points out: “Dean’s death sparked an industry that bought and sold mementos of his violent end as well as his short life. [...] As the ‘James Dean Necrophilia’ spread across the country, Dean’s fans increasingly scrambled for any piece of their fallen idol”<sup>600</sup> This logic certainly informs Kit’s act of giving away his personal possessions to the adoring throng of police officers and military soldiers that are gathered around him at the end of the film as he addresses them, bound and manacled, from the wing of an airplane.

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<sup>598</sup> Barbara Jane Brickman, “Coming of Age in the 1970s: Revision, Fantasy and Rage in the Teen-Girl *Badlands*,” 47.

<sup>599</sup> Even following the line of Brickman’s argument, granting Holly control of the narrative, it would make sense that she would choose a leading man with a short life, leaving her with a long life full of options.

<sup>600</sup> Amy Gangloff, “Medicalizing the Automobile,” 227, 231. The phrase “James Dean Necrophilia” originates from a letter to the editor in *Life* (October 15, 1956), 19.

Arguably, the most mythic mementos Kit leaves behind are the bodies of the people he killed. Each one of them is marked by the violence he inscribes upon their bodies, a deadly autograph of sorts, that grants them a place in history, albeit one that will always relate to his own. The corpses, of course, are the first of Kit's 'mementos' to be discovered. Proof of his guilt, and building blocks of his celebrity, they are also what guarantees value to the other mementos Kit either leaves behind or hands out happily. Not quite a gold standard, the bodies of Kit's victims, guarantee value to the currency of mementos he leaves behind. As his celebrity grows, so too, does the value of that currency. Like his hero, James Dean, it is Kit's relation to death – both the deaths of his victims and his own inescapable death that results from them – that allows him to achieve celebrity status.

The connection to James Dean that runs throughout *Badlands* actually stretches back a dozen years before the film was even made. The charming/aloof/homespun/sociopathic character of Kit, the spree killer at the center of *Badlands*, was based on real life spree killer Charles Starkweather, a 19-year old James Dean lookalike from Nebraska, whose murder spree of eleven people in the Midwest terrorized the entire nation in January of 1958, making him the first serial killer of the television age.<sup>601</sup> Accompanied by a 14-year-old girl, Caril Ann Fugate, the media spun the story as an update on the Bonnie and Clyde myth, describing her alternately as his girlfriend, accomplice, or possibly the brains behind the crimes – while Fugate has always held that she was an unwilling captive. Daily newspaper articles and nightly news broadcasts covering the ongoing murder spree and subsequent manhunt involving 500 members of the National Guard, followed by primetime coverage of the arrests, subsequent trials of Starkweather and Fugate, and eventual electrocution of Starkweather in June of 1959, made for

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<sup>601</sup> According to the Federal Bureau of Investigation, a "spree killer" is a person who commits two or more murders without a cooling-off period; this is the determining difference between a "spree killer" and a "serial killer," while "mass murderers" are defined by multiple killings during one incident.<sup>601</sup> But investigators and historians often differ in their categorizations, with Starkweather being variously referred to as all three by various investigators and writers in the decades since the murders.

a then-unprecedented eighteen months of sustained television, radio and newspaper coverage across the nation.<sup>602</sup>

As Jeff McArthur, grandson of Fugate's lawyer, John McArthur, sees it, "The media had sensationalized Starkweather and Fugate as the new Bonnie and Clyde. [...] The image of two young lovers on a rampage was more captivating, and that's the image the media presented to the public before Caril could even speak to a lawyer, before she even knew that anyone thought she was guilty."<sup>603</sup> Not only did this media spin guarantee a long lifespan for the story, it also helped concretize public opinion, fusing them as a *couple* equally guilty of all the crimes committed, ultimately resulting in the convictions of both – with Starkweather sentenced to death, and electrocuted only seventeen months after the murder spree, and Fugate sentenced to life in prison. (She ultimately served seventeen years and was released in 1976.)

As the first serial killer of the television age, the media was flooded with images of Starkweather, making him a virtual star. Part James Dean, part mad dog killer, Starkweather was a figure who both terrified and obsessed the American public in 1958-59, and has continued to do so.<sup>604</sup> A basic Google search in 2020 will call up endless black and white images of the 19-year old

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<sup>602</sup> The title of the film appears to emanate from an AP wire story announcing the arrest of Starkweather on January 29, 1958: "DOUGLAS, WYO., JAN. 29 (AP) – CHARLES STARKWEATHER, 19, RUNTY NEBRASKA GUNMAN SOUGHT IN NINE SLAYINGS, WAS CAPTURED TODAY IN THE BADLANDS NEAR THIS WYOMING COWTOWN." (Quoted in Ninette Beaver, B.K. Ripley and Patrick Trease, *Caril* (New York: Bantam Books, 1974), 45.)

<sup>603</sup> Jeff McArthur, *Pro Bono: The 18-Year Defense of Caril Ann Fugate* (Burbank, CA: Bandwagon Books, 2012), 2, 32.

<sup>604</sup> To date, there are half a dozen feature films portraying various versions of his killing spree – *The Sadist* (James Landis, 1963), *Badlands* (Terrence Malick, 1973), *Stark Raving Mad* (George Hood, 1981), *Murder in the Heartland* (Robert Markowitz, 1993), *Kalifornia* (Dominic Sena, 1993), *Natural Born Killers* (Oliver Stone, 1994), *The Frighteners* (Peter Jackson, 1997), *Starkweather* (Byron Werner, 2004) – plus, another half dozen television adaptations about or inspired by the slayings include: "A Case of Two Savages," a 1962 episode of the TV series *Naked City*; "The Bobby Currier Story," a 1968 episode of *The Name of the Game*; "Dangerous Liasons," a 2010 episode of *Deadly Women*; "Teenage Wasteland," a 2016 episode of *A Crime To Remember*; plus countless appearances on television documentary programs featuring archive footage, starting with Ninette Beaver's 1972 documentary about Caril Ann Fugate, *Growing Up In Prison*, and later including *American Justice* (1993), *Murderers, Mobsters & Madmen* (1993), *Serial Killers* (1994), *A&E Biography* (2000), *History's Mysteries: Infamous Murders* (2001), *Fox Files* (2013). There have also been more than a dozen books devoted to the crimes; nonfiction books include: James M. Reinhardt, *The Murderous Trail of Charles Starkweather* (1960), Richard McBride, *Blood Ballads (An Impression of the Charles Starkweather Murders)* (1961); Ninette Beaver, *Caril* (1974); William Allen, *Starkweather: The Story of a Mass Murder* (1976); Earl Dyer, *Headline: Starkweather – From Behind the News Desk* (1993); Jeff O'Donnell and Kevin Oliver, *Starkweather: A Story of Mass Murder on the Great Plains* (1993), Jack Sargent, *Born Bad: Charles Starkweather – Natural Born Killer!* (1996), Michael Newton, *Wasteland* (1998) Jeff McArthur, *Pro Bono: The 18 Year Defense of Caril Ann Fugate* (2012); Linda M. Battisti and John Stevens Berry, *The Twelfth Victim* (2014); Jeff Simmons, *Chasing Starkweather: Massacre on the Great Plains* (2016); several fictionalized novels also exist: Wright Morris, *Ceremony at Lone Tree* (1960); Lawrence Block, *Not Comin' Home to You* (1974), and Liza Ward, *Outside Valentine* (2004). Perhaps most famously, horror writer Stephen King credits his fear of Charlie Starkweather as a boy as the reason he became a horror writer. The young King collected newspaper clippings at the time of the murders and subsequent trial, eventually creating characters either based on him or named after him, even referring to the murders in multiple books. "I do think that the very first time I saw a picture of him [Starkweather] I knew I was looking at the future. His eyes were a double zero. There was just nothing there. He was like an outrider of what America might become." (Quoted in Jeff McArthur, *Pro Bono*, 290.)

looking unsettling like James Dean; clad in black leather jackets and rough hemmed denims, or blue jeans and a white t-shirt, or a gray suit with white, open collared shirt underneath; often wearing glasses identical to Dean's and even more often with a cigarette clamped casually in the corner of his mouth. This is, in part, a powerful testimony to just how media-savvy and image self-conscious Starkweather was, but is equally revealing of the image that the press was also trying to cultivate, based on the images selected for publication. For Fugate, fame transformed her into a figure also shaped by cinematic conventions of the time – that of femme fatale and female juvenile delinquent rolled into one. As Linda M. Battisti and John Stevens Berry describe in their 2014 book-length defense of Fugate:

Caril was seen by the general public as a combination of Ma Barker, Bonnie Parker (of Bonnie and Clyde) and Lolita, a girl-woman caught up in the thrill and excitement of the murderous rampage of her boyfriend, Starkweather. [...] Most books written about the killings assume that Caril was a willing participant, a smart-mouthed, thrill-seeking, blue-jeaned punk—crazy about Starkweather and his leather jacket, hot rods, and guns. In the 1950s, she was also considered a little tramp who had engaged in sexual intercourse outside the bonds of matrimony. In that era, Caril Ann Fugate's reputation was as low as a girl's could get."<sup>605</sup>

During the court case this angle was stressed by the prosecution, again effectively shaping the image of Caril into a teenage seductress, femme fatale, and controlling Bonnie to his Clyde.

In the weeks leading up to and during Fugate's trial, local Nebraska newspaper the *Lincoln Star* ran daily stories about the case, split between hard news and feature stories, many of which further fueled the public's notion of Fugate as a femme fatale with titles like "Caril Reserved, Emotionless" describing her "striking paleness" and "emotionless testimony,"<sup>606</sup> how she watched juror selection "with a look of forced attention on her perpetually pouty face,"<sup>607</sup> or was "showing marked petulance against" the sheriff assigned to escort her during the trial,<sup>608</sup> or possibly the most disturbing, an article titled "Smiling Caril Breaks Down as Bartletts' Death

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<sup>605</sup> Linda M. Battisti and John Stevens Berry, *The Twelfth Victim: The Innocence of Caril Ann Fugate in the Starkweather Murder Rampage* (Omaha, NE: Addicus Books, 2014), 21, 15.

<sup>606</sup> *Lincoln Star*, November 13, 1958.

<sup>607</sup> *Lincoln Star*, October 28, 1958.

<sup>608</sup> *Lincoln Star*, November 13, 1958.



Related.”<sup>609</sup> Descriptions such as these served to link Fugate to Starkweather through their seemingly shared anti-authoritarian attitudes. But while Starkweather’s coldness translated to ‘coolness,’ of a rebellious nature, connecting him to his role model James Dean, for Fugate, ‘coldness’ translated to a rebellion from emotion and traditional morality, resulting in a lack of remorse or any sense of responsibility for her perceived active role in the crimes. The fact that the only testimony describing her active role came from Starkweather himself *after* he had been convicted and sentenced to execution in the electric chair didn’t seem to matter to either judge, jury or the public, all of whom were all too happy to convict the now-famous 14-year old girl.

What we see constructed here are two very different forms of fame of the 1950s – divided along gender lines. The identity Starkweather cultivated fit easily alongside the 1950s generation of anti-heroes like fellow Nebraskan Marlon Brando and especially James Dean, who he self-consciously tried to emanate even before the murders, and which the press then amplified afterwards. McArthur’s description of Starkweather’s homecoming after the arrest in Wyoming is illuminating here:

Arriving back in Lincoln, it was as though Charlie was a celebrity. Everyone wanted to know about this young man who had evaded police and killed so many people. Reporters crowded the car Charlie was in and their bulbs flashed like lightning around him. Hoards pushed forward, trying to get a look. What they saw resembled a real life celebrity. He was almost the spitting image of James Dean, but with bright red hair. Black and white photographs were extremely similar to the famous actor, but the handcuffs on Charlie gave him away. He even smoked his cigarettes like Dean, carelessly hanging it out one side of his mouth while he looked at the camera with an indifferent cockiness.<sup>610</sup>

According to Jack Sargeant in *Born Bad: The Story of Charles Starkweather & Caril Ann Fugate*, it was “after seeing *Rebel Without a Cause* at the local drive-in Starkweather began to idolize Dean, and began to emulate his appearance and posture.”<sup>611</sup> It was around this time that he began wearing his red hair in a ducktail, smoking Kools, and belonging to a so-called

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<sup>609</sup> *Lincoln Star*, November 20, 1958.

<sup>610</sup> Jeff McArthur, *Pro Bono*, 46.

<sup>611</sup> Jack Sargeant, *Born Bad*, 16.

“hot rod gang” called “The Drifters,”<sup>612</sup> dressing like the rest of the members, in blue jeans, cowboy boots and black leather jacket. One of the gang’s favorite pastimes was a game then called “chicken out,” which involved two cars speeding directly at each other. The loser was the person who swerved to avoid the crash and “chickened out,” while the winner was the driver who stayed the course. According to Battisti and Berry, “Charlie was master of the game” and “a virtual James Dean.”<sup>613</sup> According to Gangloff it was the combination of the famous “chicken run” scene from *Rebel Without a Cause* and his violent death by car crash occurring before the film was released that were equally responsible for James Dean’s seemingly eternal fame:

At the time of his death, Dean had only starred in one commercial success, *East of Eden*. With the release of *Rebel Without a Cause* in October 1955, Dean’s accident took on new significance. In the movie, Dean’s character, Jim Stark plays a game of chicken with another car as they drive toward a cliff. Fans and the media seized upon Jim Stark’s recklessness and Dean’s own fascination with death to develop posthumously the image of James Dean as a brooding, introspective, tragic figured destined to die young. In this process, the automobile and his death became a cultural obsession.<sup>614</sup>

Like James Dean, Starkweather’s celebrity too was inextricably linked to the car he was driving, albeit a violent variation of the Driver-Car-Star, perhaps more accurately labeled the Driver-Car-Star-Killer. Like Dean, Starkweather’s link to automobility also meant death. Not only his own eventual death, seemingly destined like Dean, but also the deaths of his victims. While Starkweather was never in a crash, every image of him was haunted by Dean’s crash, every image a reminder of his fiery death, while providing a testament that this alternate version of him would continue to walk the earth until the day of his electrocution. For Starkweather too, death and the automobile were inextricably linked, albeit in a different way. As McArthur describes it, when “Charlie wanted to switch vehicles, [...] this was how he always got the next one; he killed for it.”<sup>615</sup> During the spree, the panic and fear that spread across the Midwest was a fear of mobility itself. As Fugate later reflected in the 1970s in an interview, “the fear that

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<sup>612</sup> Ninette Beaver, B.K. Ripley and Patrick Trese, *Caril*, 63.

<sup>613</sup> Battisti and Berry, *The Twelfth Victim*, 58.

<sup>614</sup> Amy Gangloff, “Medicalizing the Automobile,” 230-231.

<sup>615</sup> Jeff McArthur, *Pro Bono*, 23.

society felt” emanated from the fact that “they didn’t know which direction anyone had went [...] – east, west, south, or north.”<sup>616</sup> Like Bonnie and Clyde in the 1930s, the public feared Starkweather and Fugate could be anywhere and the state’s police force and eventually the National Guard reacted as if they were, in a sense, *everywhere*. Part of this threat was the result of the couple constantly changing vehicles. While James Dean, as Driver-Car-Star, will forever be associated with the Porsche Spyder he died in, Starkweather was perceived as possibly being in *any* vehicle. In essence, this Driver-Car-Star-Killer had a multitude of interchangeable metal bodies. As such, he couldn’t be identified from afar, from a distance on the road. He could in fact only be identified fairly close up. But even then there was slippage because, thanks to the media, the face people were looking for belonged to James Dean. In this sense it is interesting to think of James Dean as providing a sort of mask for Charles Starkweather. The visage of Dean becomes the initial point of identification, effectively obscuring the true self of Starkweather. The media’s portrayal of Starkweather as a double for the dead rebel star effectively added star power to the killings and their coverage of them. This was, after all, a role that most of Dean’s fans could probably see him in, combining elements of Cal Trask from *East of Eden* (Elia Kazan, 1955) with Jett Rink from *Giant* (George Stevens, 1956) and most obviously Jim Stark from *Rebel Without a Cause* (Nicholas Ray, 1955). One poster for *Rebel Without a Cause* prophesied the eventual arc of Jim Stark [James Dean’s] rebellion when it proclaimed: “Jim Stark – from a good family – *what makes him tick...like a bomb?*”

To the public, Starkweather was both a real world reincarnation of James Dean and a walking dead man, being repeatedly described as a “mass killer” or “mass murderer” in the weeks and months leading up to his trial, such as the lead story the day his trial began that described “the murder trial of mass killer Charles Starkweather.”<sup>617</sup> For the 17 months that stretched between the crimes and his electrocution, images of Starkweather obsessed the nation,

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<sup>616</sup> This interview was conducted sometime in the 1970s for a KMTV broadcast, and was part of a collection of raw footage sent to me via Dropbox by Paul Eisloeffel, Curator of Audiovisual Collections at the Nebraska State Historical Society.

<sup>617</sup> *Lincoln Star*, May 6, 1958.

offering James Dean fans an alternate reality, a sustained look at a character from a film that was never made, where the character killed and was now awaiting execution.

The overarchingly conservative Nebraska press in their continued presentation of Starkweather as an alternate version of James Dean were trying to deliver a cautionary message to the population – that this new embrace of rebellion, identification with the image of James Dean and the rebellion from the norms of adulthood that he represented on screen and increasingly after his death was perceived as a threat to mainstream society. So by presenting Starkweather as a mutated version of this vision – a sort of endpoint of what this rebellion could lead to – they could have been hoping to quash the teen rebellion movement. Instead, however, the image outweighed the acts. Teens were drawn to the case, gathering both in and outside the courtroom during the trial, and later gathering outside the prison when he was executed. There are various mentions of this in the press of the time, but literally no follow through. No interviews with these teens on why they were there, why they were drawn to the case. Did they support Starkweather? Identify with him? Or was he an attraction similar to a car crash on the side of the road, drawing rubbernecks from all directions?

As Elliot Leyton describes in *Hunting Humans: The Rise of the Multiple Murderer*, one of the first sociological studies of mass murderers and considered a foundational text on the subject, “The press made a sustained attempt to diminish him, singling him out (as mankind has done since time immemorial) the shared iniquities of the generation they had created.”<sup>618</sup> In Leyton’s opinion, in their fiery crucifixion of the youth problem, and Starkweather’s symbolic role in it, they had actually somehow got it right, “and it was appropriate that they should single

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<sup>618</sup> Elliot Leyton, *Hunting Humans: The Rise of the Multiple Murderer* (Toronto, Ontario: McClelland & Stewart, 2005 [1986]). E-book, 549. To illustrate his point, Leyton quotes a 1958 Omaha-World Herald editorial: “If Charles Starkweather were a case apart, a biological accident, a monstrous freak of nature, then today all Americans could take a deep breath of relief and give thanks that his mad career of murder had been brought to an end. But although his crimes were of a violence beyond precedent, nevertheless there was a certain flavor to the Starkweather story which brought back to mind a thousand others which have been told in recent years to an unbelieving America. The sideburns, the tight blue jeans, the black leather jacket—these have become almost the uniform of juvenile hoodlums. And the snarling contempt for discipline, the blazing hate for restraint, have become a familiar refrain in police stations and juvenile courts throughout the land. To a greater degree than ever before, influences are pulling some youngsters away from the orbit of the home, the school, and the church, and into the asphalt jungle. That is the problem.” (Quoted in Elliot Leyton, *Hunting Humans: The Rise of the Multiple Murderer*, 549-550.)

out Starkweather for what they saw not as his insanity, but his terrifying *normality*.<sup>619</sup> In other words, Starkweather, like Dean, was a powerful symbol for this new generation that teetered on the dividing/defining line of rebel/delinquent. As Leyton argues, “The authorities and the public were moved: They correctly sensed the beginning of a fracture line that might shatter all the traditional structures; and in the process, they saw the rebel Starkweather playing a significant symbolic role that must be crushed. At that late stage, all they could hope to do was to use his impending execution as a warning to all rebellious youth.”<sup>620</sup> It was, after all, the sort of role James Dean was born to play. (Or, at least the one Warner Brothers had shaped him to play.) Echoing the morality of *Rebel Without a Cause*, Starkweather as Dean, was shaped to recuperate middle America’s middle class values via his public execution. The message constructed by the legal system and amplified by the press: taking the rebel image too far would always end in murder, most likely mass murder. Leyton sums up the deadly social threat of Starkweather’s image:

His personal style mirrored rebellious adolescents’ heroes of the day so successfully (especially the cult figure James Dean, who appeared in the film *Rebel Without a Cause*) that it lent his crimes an ominous air of impending insurrection. To neutralize this potential social threat, the media strove to invalidate him, dismissing him as merely ‘warped’ and immature, a kind of meaningless adolescent fantasy. Thus the significance of his homicidal rage remained largely unexamined, as the authorities repudiated his message merely by refusing to decipher it.<sup>621</sup>

What resulted instead was the creation of an entirely new category of celebrity: the Celebrity/Killer. While the category wouldn’t really be examined in the cinema until the release of *Badlands* in 1973, it would be almost another decade until the category started quickly becoming crowded with other names like Ted Bundy, Jeffrey Dahmer, John Wayne Gacy, Henry Lee Lucas, Richard Ramirez, with the phrase “serial killer” first coined in the early 1980s by FBI

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<sup>619</sup> Elliot Leyton, *Hunting Humans: The Rise of the Multiple Murderer*, 550.

<sup>620</sup> Elliot Leyton, *Hunting Humans: The Rise of the Multiple Murderer*, 550.

<sup>621</sup> Elliot Leyton, *Hunting Humans: The Rise of the Modern Multiple Murderer*, 503.

investigator Robert Ressler.<sup>622</sup> By the 1990s the interest in serial killers had gone mainstream, exploding into the problematic phenomenon known as “serial killer chic”. It is in this period that the Starkweather story is retold over and over again, achieving near mythic status, remaining arguably one of the most important American myths of the late 20<sup>th</sup> century.

### **STARKWEATHER’S PROGENY: THE MODERN SERIAL KILLER (ON THE ROAD)**

Although he was not this country’s first mass murderer<sup>623</sup>, Starkweather remains one of the most famous, providing the basic blueprint for both character and plot of many of the films that comprise the next major cycle of road movies in the 1990s. In *Born Bad: The Story of Charles Starkweather & Caril Ann Fugate*, Jack Sargeant argues that these 1990s films inspired by Starkweather and Fugate comprise a sub-genre of the road movie that starts with *Badlands*, and then continues with *Wild at Heart* (David Lynch, 1990), *True Romance* (Tony Scott, 1993), *Kalifornia* (Dominic Sena, 1993), and *Natural Born Killers* (Oliver Stone, 1994).

The inaugural gesture, or at least the most clearly apparent articulation, of this sub-genre is in Terrence Malick’s *Badlands* (1974). The film – despite its textual protestations to being a work of fiction – is an almost exact recreation of Starkweather and Fugate’s relationship, although it is not without its noticeable differences. Nevertheless it is to this film that other works within the sub-genre refer; it is *Badlands* – rather than Starkweather’s actual story – which serves as the general point of intertextuality throughout this sub-genre (although each film has many other points of intertextuality which are culturally and temporally specific to that text and its particular audience).<sup>624</sup>

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<sup>622</sup> Becky Sullivan, “The FBI Investigator Who Coined the Term ‘Serial Killer,” *NPR All Things Considered* (December 29, 2013). <https://www.npr.org/2013/12/29/258160192/the-fbi-investigator-who-coined-the-term-serial-killer>. Accessed August 9, 2020.

<sup>623</sup> In 1958 only one other spree killer outnumbered Starkweather’s body count – Howard Unruh a 28-year old WWII veteran who killed twelve people in 12 minutes on a Walk of Death through the neighborhood streets and shops of his hometown Camden, NJ in 1949, now considered the “father of mass murder.” Less than 24 hours after his arrest he was transferred to the Trenton Psychiatric Hospital for the criminally insane voluntarily, where he would remain for sixty years until his death in 2009. Though examined for weeks after the arrest by a team of psychiatrists, their findings wouldn’t be released until 2012. The diagnosis of “dementia praecox, mixed type, with pronounced catatonic and paranoid coloring,” earned him the colloquial description of “paranoid schizophrenic.” Katherine Ramsland, professor of forensic psychiatry and director of the master of arts program in criminal justice at DeSales University, argues that “he didn’t have any actual symptoms of schizophrenia, they just didn’t know what else to do in those days. Back then, paranoid schizophrenia was a kind of trash-can diagnosis. [...] I always found it so odd that they just locked him away and forgot about him.” But I would argue that this unprecedented spree was, in 1949, an anomaly authorities were only too happy to suppress, and the fact that Unruh was a WWII vet, using the skills and weapons he acquired in the war to carry out his spree would have been perceived as an Un-American act that authorities across the country were likewise trying to suppress. See Patrick Sauer, “The Story of the First Mass Murder in U.S. History,” *Smithsonian Magazine* (October 14, 2015). <https://www.smithsonianmag.com/history/story-first-mass-murder-us-history-180956927/>. Accessed August 1, 2020.

<sup>624</sup> Jack Sargeant, *Born Bad: The Story of Charles Starkweather & Caril Ann Fugate*, (London: Creation Books, 1996), 113-114.

I would argue that the other added layer of intertextuality that actually originates with Starkweather himself (and Fugate, albeit to a lesser degree), and runs through the entire cycle of films they inspired in the 1990s, is the issue of celebrity itself – specifically the construction of the celebrity killer and/or celebrity killer couple. This becomes increasingly the focus in the cycle of 1990s road movies inspired by the Starkweather/Fugate case where celebrity is not only a common result of the crimes and but often the reason why the killings began.

Although Martin Sheen and Sissy Spacek are now commonly named among A-list celebrities of the 1970s and 1980s, when *Badlands* was released they were both virtual unknowns. So the alignment of their celebrity with first-generation celebrity-killers Charles Starkweather and Caril Ann Fugate is a layer that was added only later when the film was revisited, re-released, and eventually enshrined in the canon of New Hollywood classics of the 1970s. In almost all the 1990s films that revisit, remix and/or re-spin the Starkweather/Fugate myth, we see established celebrities cast in these roles – Nicholas Cage and Laura Dern in *Wild at Heart*, Christian Slater and Patricia Arquette in *True Romance*, Brad Pitt and Juliette Lewis in *Kalifornia*, Woody Harrelson and Juliette Lewis in *Natural Born Killers* and Tim Roth and Fairuza Balk in *Murder in the Heartland* (a TV movie directed by Robert Markowitz, 1993). This list of A-list celebrities from the 1990s immediately testifies to just how mainstream the myth of the killer couple on the road had become. Examining the films themselves reveals an explicit alignment of the road movie and the serial killer, lending further credence to Sargeant's assertion that these films are in fact a sub-genre spawned singlehandedly by *Badlands*.<sup>625</sup>

Viewing these celebrities in the roles of celebrity-serial killers offers a very different experience for film viewers. As David Schmid argues in *Natural Born Celebrities: Serial Killers in American Culture*, the spectator's identification with these characters can be either a means of self-destruction or violent attack on others, and "these identifications are heightened even further by the presence of film stars playing serial killers; in such instances, the curiosity that a

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<sup>625</sup> Although the oft-overlooked no-budget indie film *The Sadist* (James Landis, 1963) is actually the first film inspired by the Starkweather/Fugate case, predating *Badlands* by a full decade.

film audience is encouraged to feel about the personality of the film star is overlaid by the American public's enduring fascination with 'what makes a serial killer tick?'"<sup>626</sup> I would argue, however, that in the case of the films listed above, these film celebrities outshine Starkweather and Fugate, preventing our getting too close to them. Like Starkweather hiding behind his James Dean image, we can never get too close to these characters, because of the level of the stars playing these roles. However, by revisiting the Starkweather/Fugate story again and again and again throughout the 1990s, their myth becomes further embedded in American culture, and within notions of automobility itself.

The only film in this cycle that follows Malick's lead, casting complete unknowns and shot on a shoestring budget, is the film that initiates the genre cycle in the 1990s: *Henry: Portrait of a Serial Killer* (John McNaughton, 1986). Although the film was made in 1986, it actually only screened once that year – at the Chicago International Film Festival; three years later it was screened for the second and third times at the 1989 Telluride Film Festival and the Boston Film Festival; it is only in 1990 that the film finally saw limited release in theaters in the U.S.. So although the film's production dates back to 1986, it is telling that its release happens just when it does: a month after the release of *Wild at Heart* (David Lynch, 1990), and six months before *Silence of the Lambs* (Jonathan Demme, 1991), essentially marking the beginning of two of the most popular genre cycles in the 1990s – the road movie and the serial killer film. Although often discussed in critical works on serial killers, *Henry: Portrait of a Serial Killer* has never been recognized as a road movie that should be included in the popular 1990s cycle. Although Henry doesn't leave the confines of Chicago until the end of the film, he spends most of the film in his automobile, discovering previously unexplored areas in sequence after sequence, essentially aligning this film with *Bullitt* as a road move that is confined to a single city.

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<sup>626</sup> David Schmid, *Natural Born Celebrities: Serial Killers in American Culture* (Chicago: University of Chicago Press, 2005), 113.



While the character of Henry is based loosely on Henry Lee Lucas, the notorious serial killer known as the “Confession Killer” arrested in 1983 and eventually convicted for the murders of 11 people, and the film features a number of autobiographical details culled from Lucas’ life<sup>627</sup>, the film can also be seen as another retelling of the Starkweather/Fugate story, albeit one told in a jumbled order. Seen in this way, the film becomes a compelling variation of Fugate’s version of the story. In the film, Becky lives side by side with no less than two serial killers – Henry and her brother Otis – completely unaware of their murderous ways until they turn on each other. Near the end, when Henry returns from the convenience store and finds Otis raping her (a scene which doubles the disturbing primal scene that Henry and Becky each experienced as children<sup>628</sup>), Otis turns his rage on Henry, attempting to murder him. But Becky saves Henry by stabbing her brother in the eye. Henry then takes the next step, murdering Otis in a violent rage; arguably a feat performed in self-defense, and certainly the only emotionally motivated murder we see him perform over the course of the film. In this sequence, not only do we get a variation on the first murders carried out by Starkweather on Fugate’s family, but it is only after this that the couple get in Henry’s car and hit the road, finally leaving the city’s limits.

Suddenly, 78 minutes in, the film transforms to a lovers-on-the run scenario, lifted directly from the Starkweather/Fugate myth, and revisited by virtually every road movie of the 1990s. While in the car, speeding away from the crime scene, the young couple profess their love for each other; Becky, in a passionate manner, Henry, in a more reserved manner (“I guess I love you too, Becky.”). Both act as if they are just realizing it for the first time, brought together by a crime of passion, expressed in the intimate space of the nest of the automobile. For Becky, the intimacy of the automobile marks it as a safe space as they speed away from the violent

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<sup>627</sup> Although sharing a first name with the real life killer, the film actually only features a handful of explicit events and characters that relate to his real life. The opening shot of the murdered girl in pink socks is inspired by the murder Lucas was arrested for and eventually sentenced to execution for – the victim known only as Orange Socks until she was finally identified in 2019 as Debra Jackson. Henry’s description of his parents is directly lifted from Lucas’ own family; his mother was a prostitute who often forced him to watch while having sex with clients, often in a dress, and Lucas’ father lost both of his legs after being struck by a freight train. Lucas did join forces with fellow serial killer Otis Toole and kill several people. Lucas sexually abused Toole’s 12-year old niece, Frieda Powell, and eventually killed her; in the film Henry has a relationship with Otis’ 20-something sister, and eventually kills her.

<sup>628</sup> Henry’s mother was a prostitute who forced him to watch her having sex with her clients, often dressing him in little’s girls’ clothing to further degrade him (these facts taken directly from Henry Lee Lucas’ own upbringing), while Becky’s father regularly raped her throughout her childhood, a fact she insists her mother knew about, but would never admit to knowing about.

scene, out of the city and into the country for the first time. But for Henry, as we've seen throughout the film, the intimacy of the automobile translates into a safe space for *killing*. So, although the scene in the car is played as a romantic escape scene for the young couple, and indeed plays generically as one that could be lifted directly from the Starkweather/Fugate tale, or any of the subsequent filmic versions, this remarkably still scene also marks Becky's true entry into Henry's world of automobility. So perhaps it should come as no surprise that Becky is dead only minutes later.

The entire lovers-on-the run sequence lasts precisely two scenes and barely more than three minutes on screen. Again, our reference point here is Caril Ann Fugate, whose defense in court and throughout her life was that she didn't leave Starkweather because she feared he would kill her. She had seen him commit multiple murders, and eventually feared she would be his twelfth victim. It was a defense ignored by the jury, and most of the public, whose opinion had already been shaped by the press, but the vision of that possibility is powerfully convincing here.

We don't see Becky's actual murder on screen. As in the opening sequence, the violent act is elided, and instead the film cuts from a scene of Becky sitting on the bed in a hotel room playing guitar as Henry, in the adjacent bathroom, stares at himself in the mirror.<sup>629</sup> Afterwards, he hovers over her announcing "We'd better go to bed now." She nods and the scene fades to black. The next morning, we see Henry again in front of the mirror, shaving with a straight-edge razor, then exit with a tote bag in hand and get into his Chevy Impala. The camera slowly zooms out as he backs out of the parking space, and it is only when the rear end of the car fills the width of the screen that we see he is alone. The following shot opens wide on a country road, slowly panning as Henry's car approaches. When the car stops on the side of the road the camera begins a slow, inexorable zoom as Henry gets out of the car. When he opens the trunk the soundtrack resumes its doomy John Carpenter-inspired title track, "Henry Theme." Henry

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<sup>629</sup> This is the image that was used for the movie posters and the covers of the eventual VHS and DVD releases.

stares into the trunk, waiting for several cars to pass, each one momentarily filling the frame and blocking our view of Henry as they pass. He lifts a large and obviously heavy garment bag out of the trunk. When it hits the ground roughly because of its heft we get our final sonic flashback – the sounds of Becky’s screams as Henry murdered her the night before. As the camera continues its slow zoom in on the garment bag framed tellingly in the space between the highway and automobile, we see it is smeared with blood. Henry crawls back into the driver’s seat, the entire car lowering to register his weight as he re-establishes the Driver-Car assemblage. The rear tire now fills most of the left side of the frame now, the bloody bag of Becky’s remains fills the right side; the screen, in effect, equally weighted with the murder on one side and Henry’s one consistent weapon on the other: his car. Then he drives away and the camera completes its slow zoom in a close up of the bloody bag in the waving weeds by the side of the road and the film fades to black.

Following the Starkweather model, Henry’s crimes are inextricably linked to the road. He is well aware of this, confiding to Otis early on that the most important thing is that you “gotta keep moving, and never stay in the same place for too long.” For Henry and Otis, automobility is aligned with death throughout the film. As Bernice M. Murphy points out in *The Highway Horror Film*, Henry’s victims are “implicitly linked to the road,” echoing Starkweather’s selection of murder victims; so too is Otis’ menial job – inextricably linked to automobility (as a gas station attendant who deals drugs there as well) – “For Henry and Otis, the freeways are the perfect hunting ground, and the car is an invaluable accessory to their crimes.”<sup>630</sup> After Henry murders two prostitutes in the car that the two men have picked up, Otis is initially shocked, but quickly comes around to sharing Henry’s worldview of “it’s either you or them.” As Murphy points out, “it becomes obvious that their connection is intensified by the

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<sup>630</sup> Bernice M. Murphy, *The Highway Horror Film*, 69-70.

enforced intimacy of the vehicle. From that point onwards, whenever Henry and Otis get in a car together, someone dies.”<sup>631</sup>

Interestingly, Henry himself is somehow blind to the role automobility plays in his crimes. While he insists on the crucial importance of constantly changing locations, weapons and even styles of murder to evade capture, he somehow fails to recognize the one element present in each one of his killings – *his car* – aligning automobility explicitly with his crimes.<sup>632</sup> His car is, in fact, the most versatile weapon Henry has at his disposal. It is the method and means for stalking his prey, luring victims, planning murders, committing murders, transporting and disposing bodies and providing an escape route. Ultimately, and perhaps most importantly, Henry’s car is also his home. His nest and his shell. In many ways his trust in the automobile is a throwback to the pre-Nader years, in his assumption that the shell will make him invisible and keep him safe as he moves from city to city. As Murphy describes: “McNaughton’s Henry could therefore be characterized as the most negative possible representation possible of the ‘purely mobile’ individual, one whose lack of connection to any one place or person means that the murder of strangers is almost meaningless to both him and, apparently, society at large.”<sup>633</sup> This level of hyper-mobility is common in cases of serial killers, both onscreen and in the real world. As Cynthia Waddell and Barney Warf explain from the perspective of cultural geography:

The geographical mobility of serial killers is frequently enormous, especially for organized murderers, i.e. those whose psychosis is not so advanced that ownership and maintenance of a car are unfeasible. The introduction of the automobile in the early twentieth century afforded serial killers a convenient means of seeking new victims and eluding the law. [...] This pattern simultaneously reflects and reinforces their highly marginalized status from society at large. With few family ties or stable social obligations, serial killers

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<sup>631</sup> Bernice M. Murphy, *The Highway Horror Film*, 70.

<sup>632</sup> Henry explains to Otis early into their killings together: “If you shoot someone in the head with a .45 every time you kill somebody, it becomes like your fingerprint, see? But if you strangle one, stab another, and one you cut up, and one you don’t, then the police don’t know what to do. They think you’re four different people. What they really want, what makes their job so much easier, is a pattern. What they call a *modus operandi*.”

<sup>633</sup> Bernice M. Murphy, *The Highway Horror Film*, 64.

often live a semi-nomadic existence, moving hundreds of miles away when they periodically decide to change locales.<sup>634</sup>

The limited narrative scope of the film – literally a week in the life of a serial killer – means we don't really get a sense of the scale of Henry's hyper-mobility until the very end of the film. Even though we hear Henry tell Otis "it's about time to be moving on," our vision of Henry's murderous mobility is confined to the streets of Chicago until the closing of the film. The sense of fear and dread that we are left with when the screen fades to black again collides with our primal reference point: Charles Starkweather. As was the case thirty years earlier, this is a fear of automobility; that the possibility of this killer being anywhere, simultaneously registers as him being *everywhere*. One with the road, fused with automobility, Henry is a threat that most certainly is heading to all of our home towns soon.

### **KILLERS ON THE ROAD IN THE 1990s, NATURAL BORN AND OTHERWISE**

In the cycle of popular films that follow *Henry: Portrait of a Serial Killer* in the 1990s fusing the road movie with serial killings, Starkweather and Fugate remain the primal killer couple referenced, revisited, revised and remixed. The characters standing in for them that populate these films all retain the broadest of biographical sketches: rebellious youth originating from poor, rural areas or "the wrong side of the tracks" (often referred to at some point by other characters in the films as "white trash," "oakies" or "hillbilly trash"), with accents to prove it. Following Starkweather and Fugate's 1950s lead, these characters are enacting some sort of rebellion – usually from their parents, and broader notions of conventional society. Interestingly, while the late 1960s/early 1970s cycle of road movies portrayed a series of protagonists (almost always white males in their 20s) rebelling from society by taking to the road, *Badlands* is the only film in that period that features a serial/spree killer in the rebel role. By the 1990s, however, the road movie is inextricably linked with the concept of the psychotic

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<sup>634</sup> Cynthia A. Waddell and Barney Warf, "Heinous Spaces, Perfidious Places: The Sinister Landscapes of Serial Killers, *Social and Cultural Geography*, Vol. 3, No. 3, 325.

killer, whether s/he is a serial killer or a paid assassin (as in the case of *Wild at Heart* and *True Romance*). In most of these films it is the male character who takes the lead (*Wild at Heart*, *Kalifornia*, *True Romance*), often solely performing the killings, with the younger girlfriend along for the ride. It is only in *Natural Born Killers* that we see a killer couple equally performing violent acts; in the beginning of the film it is actually Mallory (Juliette Lewis) who takes the lead in the murderous mayhem. While in *Thelma and Louise*, the only film featuring two female protagonists on the run, the singular killing in the film is an act of protection, when Louise (Susan Sarandon) shoots the man (Timothy Carhart) attempting to rape her best friend Louise (Geena Davis) on the hood of a car in a parking lot. In each of these films automobility is inextricably linked with violence and death. Like the car crash, this form of vehicular death too, can come at any place at any time.<sup>635</sup>

In the road movies of the 1990s the psychotic killer<sup>636</sup> is in fact an even more common occurrence on the road than the crash. But the threat he/she/they pose to automobility remains the same. It is always the nest at risk. Like the crash, these killers quickly expose the fragility of the relationship of the nest and shell of the automobile. In *Wild at Heart*, *Thelma and Louise*, *Kalifornia* and *True Romance*, each time the car stops it becomes a target; every time these characters leave the nest of their automobiles their lives are in danger, and if/when they welcome outsiders into their nests they are also putting their own lives in danger.

Although Kathleen McHugh points out that Ridley Scott adjusts the road movie genre to accommodate his female protagonists by using “a convertible to feminize the story, pitting spectacle against automobility,”<sup>637</sup> the fact is, almost every road movie of the 1990s, with the exception of *Henry: Portrait of a Serial Killer*, puts their protagonists in a convertible. These

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<sup>635</sup> As Mikita Brottman points out in her introduction to *Car Crash Culture*, what is true of the hit-and-run accident is equally applicable in the case of the serial killer: “[...] The easy availability of the car has made certain kinds of crimes much more easy to commit, especially kidnapping, rape, and abduction. In addition, a crime is much more difficult to solve when the body is concealed in the car and then dumped some distance from the scene of the crime. For those who prey on hitchhikers, the car itself may become the crime scene.” (xxviii-xxix)

<sup>636</sup> In *Wild at Heart* and *True Romance* the psychotic killers are killers for hire, arguably just as crazy as the serial killers in the other films, receiving the same thrills by their work, and very likely responsible for even higher body counts.

<sup>637</sup> Kathleen McHugh, “Women in Traffic, L.A. Autobiography,” 433.

open nests allow the characters to be closer to the environments they are moving through, indicating that safety is less of a priority than traveling in the open air, it also makes them more open targets to the dangers on the road. While exposing the passengers in the open nest to things like sun, wind, and dust, making the experience of traveling a sensation experienced more viscerally by their bodies, and in turn our own bodies as we watch them on screen as Traveler-Spectators. It also inverts their scopic relationship to the road environment. While the dust and wind and sun can obscure their vision of the road and their surroundings, the open nest also opens them up to the vision of anyone outside the nest, in effect presenting them to the viewer, same as they are to the serial killer(s). Here, we are reminded of the model seen in *Targets* where the Charles Whitman-inspired murderer Bobby Thompson (Tim O'Kelly) uses the scope of his rifle to access the vulnerable nests of the automobile, first on the freeway, then at the drive-in movie theater – only in the road movies of the 1990s neither we nor the serial killers require the privileged access of a rifle scope to pick out our targets. All it takes is the naked eye. As a result, the Traveler- Spectator is regularly aligned with the POV of the serial killer and implicated in their actions.

While *Henry: Portrait of a Serial Killer* portrays the figure of the hitchhiker as a vulnerable victim, *Thelma and Louise* and *Kalifornia* portray the figure of the hitchhiker as a dangerous threat (played in both films by a young Brad Pitt). In *Wild at Heart* we meet a trio of killers, Santos (J.E. Freeman), Bobby Peru (Willem Dafoe), Juana (Grace Zabriskie) Perdita (Isabella Rossellini), who are after rebel couple Sailor (Nicholas Cage) and Lula (Laura Dern). In *True Romance* the squad of mob and gang-related psychos on the trail of Clarence (Christian Slater) and Alabama (Patricia Arquette) includes no less than Gary Oldman (Drexel), Christopher Walken (Vincenzo) and James Gandolfini (Virgil). A quick glimpse of these names quickly reveals the supercharging of these casts, the infusion of celebrity on both sides of the moral divide.

While the figure of James Dean is no longer explicitly fused with the Starkweather character, the notion of 'cool' is still a central component to each male protagonist, whether he is

a killer, fleeing from killers, or both. In *Wild at Heart* and *True Romance*, it is not James Dean who haunts the frame, but another equally famous tragic celebrity also inspired by James Dean: Elvis Presley. In *Wild at Heart*, Nicholas Cage channels Elvis throughout the film via his acting style, vocal intonation and repeated performances of classic Elvis tunes. In *True Romance*, Christian Slater's character is haunted, guided and goaded by the ghostly form of Elvis, addressed only as "The King" (played by Val Kilmer). While still acting as a symbol of rebellion, here The King is also simultaneously a "paternal figure; a fantasy father,"<sup>638</sup> who actively encourages Clarence's use of violence, not unlike a father coaching his son to stand up to a bully on the playground. As Elvis himself admitted in 1956: "I've made a study of Marlon Brando. And I've made a study of poor Jimmy Dean. I've made a study of myself, and I know why girls, at least the young'uns, go for us. We're sullen, we're broodin', we're something of a menace. I don't understand it exactly, but that's what the girls like in men. I don't know anything about Hollywood, but I know you can't be sexy if you smile. You can't be a rebel if you grin."<sup>639</sup> In the road movies of the 1990s the measure of cool endemic to rebellion against society can often be measured by the body count these characters leave behind.

The concept of celebrity itself takes center stage in *Kalifornia* and *Natural Born Killers*. While both films obviously exploit the unprecedented interest in serial killers by the early 1990s, they also at least attempt to provide a critique of the problematic role the media plays in constructing the serial killer as a celebrity. While never explicitly naming Starkweather and Fugate as the original serial killer celebrity couple first constructed by the media of the late 1950s, the killer couples of both films are clearly channeling them, with both films offering updated versions of their story, embedded with post-modern references to both the original crime and *Badlands*' retelling of the tale.

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<sup>638</sup> Jack Sargeant, *Born Bad*, 125.

<sup>639</sup> This quote originates from an interview Elvis Presley did with reporter Lloyd Shearer August 6, 1956; quoted in Peter Guralnick, *Last Train to Memphis: The Rise of Elvis Presley* (Boston: Little Brown and Company, 1994), 323.



In *Kalifornia* we meet Brian Kessler (David Duchovny), a writer working on a book about serial killers with his girlfriend, Carrie Laughlin (Michelle Forbes), who is taking photos for his book. Brian's plan, which provides the set up for the road trip to California, and the road movie's plot, is to drive across America, visiting the sites of famous murders, researching his book as Carrie photographs the grim locations. To make the trip possible the couple advertises for another couple to accompany them on the road trip so they can split expenses. The only couple to answer the ad, assuring them the spots, are Earley Grayce (Brad Pitt) and his teenage girlfriend, Adele Corners (Juliette Lewis) – here, our stand-ins for Charles Starkweather and Caril Ann Fugate. This is arguably the closest telling of Fugate's version of story to hit the big screen, as Adele, aka the fictional version of Fugate, never plays an active role in the killings, and by the end, her active protestation of them costs her life. While Starkweather relied on Fugate to essentially record and retell his myth, in *Kalifornia* that responsibility falls on Brian Kessler (David Duchovny). Brian is also largely responsible for driving the killer couple around – unknowingly at first, but eventually at gunpoint, reminding the viewer, as Murphy points out, “*Kalifornia* again makes it clear that the decision to allow strangers inside the private, personal space of your car always places one at considerable risk.”<sup>640</sup>

As in *Badlands*, Brian acts as the conduit between killer and audience. But while Holly's voiceover provides a counterpoint to the violent actions of Kit, increasingly diverting attention away from him, Brian's voiceover reveals an identification with both the audience and serial killer Earley Grayce. This alignment begins during the opening credits as we watch Earley's first murderous act – dropping a huge chunk of rock from a highway overpass onto a passing car below, causing a fatal wreck – while hearing Brian reflect on his own consideration of a murderous act as a school boy: “I remember once going on a school trip to the top of the Empire State Building. When I looked down at the crowds of people on the street they looked like ants. I pulled out a penny and some of us started talking about what would happen if I dropped it from

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<sup>640</sup> Bernice M. Murphy, *The Highway Horror Film*, 71.

up there and it landed on somebody's head. Of course, I never crossed that line and actually dropped the penny. I don't think Earley Grayce knew there was a line to cross." This initiation rite that signals the beginning of the film and the beginning of Earley's crimes also effectively aligns automobility with violence, a linkage that will last throughout the film, echoing Starkweather's own fusion of murder and automobility. In *Kalifornia* the journey by car across the country, from East to West, not only follows the path of past serial murders, further inscribing them in myth and aligning them with the road, literally adding them to the map, it also creates new murder sites along the way, thanks to the roadside killings of Earley Grayce. Again echoing Starkweather, victims are all somehow directly related to automobility, considered by Earley as necessary steps in the journey, as either a method of getting money to pay for gas, or instead of paying. These murders literally propel our cast further down the road on a route that eventually makes the news, establishing the upcoming celebrity of America's newest serial killer.

Initially Brian acts out the position of the liberal humanist professor/young writer with empathy for his subjects, or "sympathy for the devil [...] like most representatives of conventional decency in this subgenre," as Philip L. Simpson describes in *Psycho Paths: Tracking the Serial Killer Through Contemporary American Film and Fiction*.<sup>641</sup> Like the spectator of serial killer films, Brian seeks a rationale, the mysterious and mythic secrets of what makes a serial killer tick. As Brian ponders in voiceover: "I didn't know if I was fascinated or frightened by him. Probably both." But as Simpson warns, "Brian's initial writer's empathy and pity for serial killers is the very engine that powers his flirtation with murder (represented by his homosocial attraction to Earley Grayce) and corresponding near downfall. [...] It is only much later that Brian, after experiencing victimization at the hands of an actual serial killer, comes to realize that his earlier sympathetic stance was based largely on a self-rationalization of his own

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<sup>641</sup> Philip L. Simpson, *Psycho Paths: Tracking the Serial Killer Through Contemporary American Film and Fiction* (Carbondale, IL: Southern Illinois University Press, 2000), 186.

voyeuristic attraction to the subject.”<sup>642</sup> What Brian fails to recognize, and the film ultimately fails to critique, is the role that the media (and films like *Kalifornia*, and the rest of the films in the sub-genre) play in encouraging this “voyeuristic attraction” to the image of the celebrity-killer. As David Schmid points out in his critique of the film in *Natural Born Celebrities: Serial Killers in American Culture*: “This is the advantage that films such as *Kalifornia* see to merely ‘skirmishing’ with fame: one gets to occupy both the low ground and the high ground simultaneously by both contributing to and decrying the culture industry organized around famous serial killers.”<sup>643</sup>

*Natural Born Killers* takes its critique of the media to the extreme, portraying the media as the true monsters, several of whom eventually pay for their crimes with their lives, while the serial killer couple, Mickey (Woody Harrelson) and Mallory (Juliette Lewis), not only escape, but in the final scenes are seen back on the road in an RV, now a happy family of four with daddy serial killer behind the wheel as pregnant mommy serial killer plays with their two small children.<sup>644</sup> This is a feat which Schmid asserts, “allows the members of his audience to both maintain their admiring identification with Mickey and Mallory and receive the comforting impression that they have liberated themselves from the manipulateness of the media.”<sup>645</sup> But it is this paradox at the heart of the film that ends up undercutting its message. As David Laderman points out in his landmark study of the road movie, “The film critiques the mass media’s obsession with violence, yet the film exploits and sensationalizes such violence; that is,

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<sup>642</sup> Philip L. Simpson, *Psycho Paths*, 187-188.

<sup>643</sup> David Schmid, *Natural Born Celebrities: Serial Killers in American Culture*, 118.

<sup>644</sup> Also embedded in the film’s intertextual backstory is murderer Charles Whitman (the inspiration for Bobby Thompson in *Targets*), who we see in flashback is responsible for the murder of the mother of murderous psychotic Detective Jack Scagnetti (Tom Sizemore), as well as the violence and real life killers crowding the nightly news when the film came out: the serial killing Menendez brothers, O.J. Simpson, the Tonya Harding-Nancy Kerrigan controversy, and the Rodney King beating and riots that followed. As director Oliver Stone described: “When we set out to make *Natural Born Killers* in late 1992, it was surreal. By the time it was finished in 1994, it had become real.”<sup>644</sup> Responding to the quote, David Schmid explains, “One could argue, then, that *NBK* fails as a satire of the media’s obsession with violence simply because it found itself outpaced by events, many of which seemed at least as bizarre as the story of Mickey and Mallory.” (David Schmid, *Natural Born Celebrities: Serial Killers in American Culture*, 124.)

<sup>645</sup> David Schmid, *Natural Born Celebrities: Serial Killers in American Culture*, 125.

the film embraces exactly what it opposes.”<sup>646</sup> Early in the film we are told the tag-team serial killer couple are responsible for no less than 52 murders (and by the end, after the prison break, a good deal more than that) – a spree initiated with the killings of Mallory’s abusive parents (Rodney Dangerfield and Edie McClurg) – repeating the mythic backstory of Starkweather and Fugate. Again, our celebrity killers head west – as in literally every film in the 1990s cycle of road movies – following the path first laid out by Starkweather and Fugate in 1958 before being recreated in *Badlands* in 1973. Again, this trip West is seen as crossing a frontier.<sup>647</sup> Although, as Murphy points out, “[...] The highways become for the relentlessly mobile serial killer a kind of lawless vacuum which both facilitates and tacitly encourages ‘outlaw’ behaviour of the most grotesque sort. The ‘frontier’ being breached here is moral rather than geographical.”<sup>648</sup>

At the same time, this ‘breaching of the frontier’ is also accomplished on an unlikely formal level via the surprising return of rear-projection, radically reinvented in *Natural Born Killers*. While the original intention of rear-projection was to remain invisible, as discussed earlier, its return in this film is precisely the opposite, serving to call the audience’s attention to its artificiality.<sup>649</sup> As David Laderman describes: “The sequence is contextualized as media-

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<sup>646</sup> David Laderman, *Driving Visions*, 194-195.

<sup>647</sup> In *Natural Born Killers* the connection to the original conception of the frontier in the ‘Old West’ is made explicit, as the first half of the film is laced with recycled imagery from black and white Westerns intercut rapid-style with the narrative of the film, as well as two key scenes involving the updated versions of the “Cowboys and Indians” associated with the Western. (Mickey’s escape from prison via well-timed tornado moving towards a corral of horses where the prisoners are working allows Mickey to hop a free horse and ride into the sunset in classic cowboy fashion. Later, the couple are taken in by an older Native American man who attempts to exorcise their demons, but ends up getting murdered by Mickey in the process.)

<sup>648</sup> Bernice M. Murphy, *The Highway Horror Film*, 11. Channeling the celebrity villains of the Old West like Billy The Kid and Doc Holliday, who of course precede both Bonnie and Clyde and Charles Starkweather and Caril Ann Fugate, Mickey and Mallory are characters known across the countryside, made famous for killing. In a brief montage that opens with a series of magazine covers featuring the celebrity serial killer couple, and testimony from their fans in supportive soundbytes like: “They’re the best thing to happen to murder since Manson,” and “If I was a mass murderer, I would be Mickey and Mallory.” This celebration of the murderous acts of the celebrity serial killer couple is taken to its extreme by director Oliver Stone, who of course is well known for taking most everything over the top. But at the same time, serial killers have been attracting young audiences of interested and admiring followers since at least Starkweather and Fugate. By 1990 Richard Ramirez, the serial killer known as “The Night Stalker,” was notorious for the number of adoring female fans he also left behind -- including one of the jurors in his trial, Cynthia Haden, and of course Doreen Lioy, the fan he ended up marrying at San Quentin. And he wasn’t the only one. Ted Bundy, murderer and rapist, was overwhelmed with fan mail up until his execution. Peter Sutcliffe aka “The Yorkshire Ripper,” received stacks of Valentines each year, and, as one newspaper reported, “was bombarded with naked selfies from pen pals.” (Mrokov, “Why Do Serial Killers Have Fans?” *Crime Investigation*. Website. <https://www.crimeandinvestigation.co.uk/article/why-do-serial-killers-have-fans>. Accessed August 16, 2020.) So in another sense, Stone didn’t take it far enough (as hard as that may be to believe!).

<sup>649</sup> Released six weeks later in the fall of 1994, Quentin Tarantino’s *Pulp Fiction* also features a highly-stylized usage of rear-projection, although Tarantino reserves its usage for the stylized portrayal of Vincent Vega (John Travolta) driving while high on heroin, using the artificiality of the process to accentuate his disconnection from his environment while driving. (To be fair, Lars Von Trier actually deserves the credit here for radically reinventing the use of rear-projection with his 1991 film, *Zentropa* (or *Europa*, as

saturated and therefore artificial, through more elaborate use of rear-projection. Rather emphatically, Mickey and Mallory are not going anywhere: the car is obviously phony, the 'landscapes' they pass through are images projected behind them. An irreverently effusive display of the postmodern disappearance of the road, the sequence, flaunts its own pretentiousness."<sup>650</sup>

With all due respect to Laderman and his influential book on road movies, I would argue just the opposite; that in fact these sequences not only connect the film with the tradition of classic Hollywood filmmaking while simultaneously radically re-envisioning it, but at the same time point ahead to the future of mobility in the 21<sup>st</sup> century. The "phony" car and the seeming disappearance of the road that Laderman criticizes is actually a very fitting reflection of the Driver-Car assemblage here, when the driver is both a serial killer and a celebrity because of it. Coupled with the repeated newspaper headlines we see appear on the rear screens, the concept of celebrity is inextricably fused with the Driver-Car, whose locations are being mapped by these newspaper headlines, same as they were with *Starkweather* and *Fugate*. In effect, the newspaper headline replaces the map, just as the killer(s) are seemingly inseparable from the car and the system of roads that covered literally the entire country by the 1990s.

Through the use of the rear-projection, our experience of the road in the film as Traveler-Spectators is identical to Mickey and Mallory's – detached, mediated by newspaper headlines, and images from classic Hollywood cinema they connect with and reflects them. The windscreen of their car is the television screen itself, mixing images from classic Hollywood cinema with mediatized images of headlines, and even images from the film *Natural Born Killers* we will eventually see repeated in the characters' lived events. The 50+ shots that comprise the 90 second opening/title sequence actually total almost triple once you figure in the rear-projection footage, which often is comprised of multiple shots, either in sequence, often connected via

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it was known in its original release in Europe). But in that film the device is used as backdrops throughout the film, recreating rooms, city streets, exteriors, or striking Expressionistic backgrounds, and not strictly aligned with automobility.)

<sup>650</sup> David Laderman, *Driving Visions*, 197.

dissolves and/or images either doubled or even tripled via superimposition. The camera photographing the car on the soundstage is most often set up in the backseat so that we see the backs of Mickey and Mallory's heads as they look out through the windscreen of their convertible. With the top down, the rear-projection footage typically takes up the top three-quarters of the screen. In the quickly cut sequence we follow Mickey and Mallory's westward journey across the country via imagery drawn heavily from classic Hollywood westerns (predominantly in black and white) – cowboys, Indians, horses, the frontier – and newspaper headlines: 'Local Girl Missing,' 'More Dead,' 'Route 666 Latest Site of Grisly Slayings,' 'Out of Control: Serial Killers Mickey & Mallory' and 'Local Couple Slain By Daughter & Boyfriend.'

There are multiple timelines compressed into each shot of the sequence, making for a very complex chronotope of automobility here. While much of the footage on the rear screen is taken from classic Hollywood cinema, it also screened later on television; so already you have both the time of the original film, and the time of its later screening on late night television, plus of course the mythic time which it is attempting to recreate – much of which is linked to the bygone days of the Old West. At the same time, the headlines allow us to track the course of the killer's journey, even if the timeline is jumbled (the last headline we see is about the couple killing Mallory's parents, which of course is actually the first set of killings that initiates the journey, we later find out.) This time-space is experienced by the Traveler-Spectator as flat and clearly on a screen set up on a soundstage in front of the car, with the edges of its frame aligned with the frame of the film we are watching. There is of course a fourth time-space – which is that of Mickey and Mallory in the automobile. This is the time-space that is both artificial, that represents both the present time of the film's narrative, but at the same time doubles the sensation of a long road trip – giving the viewer, as Traveler-Spectator, at least on some level, that feeling of always being in the car; of perpetual travel, the endless road.

Looking at the sequence through the lens of forensic geography, the sequence is an eerily accurate reflection of the distinct automobility of serial killers. As cultural geographers Barney

Warf and Cynthia Waddell point out: “Serial killers exhibit a distinctive spatiality in their behaviour, one that reflects the intersections of their own personal time-space trajectories with the social and geographic opportunities and constraints in which they and their victims live and operate.”<sup>651</sup> In this sense, Stone’s radical reinvention of rear-projection provides a truly singular filmic representation of the “distinctive spatiality” of these characters. This perspective can shed new light on the performative level of this sequence. While the acting styles of the couple have generally been criticized as over-the-top and exaggerated, easily taken as unrealistic and inauthentic, especially when viewed in the studio set up required for the use of rear-screen projection, they can also be seen as revealing glimpses of the *inner* landscapes of these killers. As Waddell and Warf further assert: “Serial killers inhabit highly abnormal, fluid landscapes in which power, fear and pleasure are fused [...]”<sup>652</sup> In the 90-second title sequence they take turns driving, jump up and down in their seats, scream and shout, jerk the wheel madly, make out (with no attention on the road), or eat popcorn/chips as if they’re at the movies, rather than in a moving automobile. While this disconnect from automobility can be read as them going nowhere, as Laderman asserts, at the same time it also reflects the audience of Traveler-Spectators, watching this film within a film about their own exploits from the comforts of their own automobile, like a private drive-in screening. It also gives the viewer the sense that the car is on autopilot; that it knows where to go; or even that the shape, scope and direction of the journey is fated. This can be taken as simultaneously a post-modern comment on the road movie genre, but also the sensation that the characters themselves might feel on their journey, reflecting back their own narcissistic rationale for the killing spree: the feeling of destiny or ‘being driven,’ commonly expressed by serial killers.

Although one could argue that the Driver-Car assemblage seems to be piloted by the car, its trajectory is also informed by the intentionality of the figures inside. The jumbled timeline of historical past, cinematic past, televisual past/present mixed with the past, present and possibly

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<sup>651</sup> Barney Warf & Cynthia Waddell, “Heinous Spaces, Perfidious Places: The Sinister Landscapes of Serial Killers,” 332.

<sup>652</sup> Barney Warf & Cynthia Waddell, “Heinous Spaces, Perfidious Places, The Sinister Landscapes of Serial Killers,” 341.

future narrative of the characters (since we don't know if the events in the newspaper headlines have occurred yet) accessed via the rear-projection by both Mickey and Mallory and the film's Traveler-Spectators is a very special time-space probably closest to the chronotope of the crash. As discussed earlier, the chronotope of the crash is directly linked to the second collision of the body with the interior/nest of the automobile – which typically takes place in a split second, too fast for a human to perceive. As a result, it can only be accessed via the cinema – specifically through high-speed film, so that the (second) impact can be seen in slow motion. Similarly, the use of rear-projection in *Natural Born Killers* allows us privileged access to the personal time-space categories of these serial killers on screen. Here, we see both the inner landscapes of Mickey and Mallory and the landscapes of fear that they generate – glimpsed via expressionistic flashes of Mallory's father, imposing walls of fire, red swirling tunnel of light seemingly haunted with a dark figure and demonic images of both Mickey and Mallory, brandishing guns, splattered in blood and white light – interwoven with images they've assumedly seen at the movies, or even more likely in 1994, on television – noir-leaning black and white footage of winding roads, railroad tracks and road closed signs, cowboys and Indians on horseback from a black and white Hollywood film, galloping horses in a 1970s color Western landscape, low-budget fire-breathing dragon, vision of 1960s Las Vegas in brat pack era Technicolor, versus the newspaper headlines that we see traveling past the camera, also mobile, mirroring and mimicking the trajectory of the automobile.

In *Natural Born Killers* the television screen has not only fused with the windscreen, but appears later in the serial killer couple's hotel room, where now the window next to the bed also reads as a giant screen. In the beginning of the sequence it doubles what is playing on the TV in the room we assume Mickey is watching, but soon it too begins to reflect the inner landscape of our characters, with footage from *The Wild Bunch*, concentration camps, Hitler, Stalin, nuclear destruction, combat footage from Vietnam and chainsaw murders, intercut primarily with footage of animals in the wild. It is towards the end of the scene we get the reveal that there is a



young woman bound and gagged in the corner of the room, so we know that the images we've been seeing on the window/screen once again reflect Mickey's intention, betraying the trajectory of off-screen events that will cost the poor woman her life.

By this point we can see that these characters have internalized the screen, carrying it with them at all times, transforming potentially any screen in their vicinity with their internalized playback. To the Native American man they visit (and eventually kill), these internalized screens are visible – when seen through his eyes, we too can see the words “demon” and “too much tv” projected onto the torsos of Mickey and Mallory. No longer limited to either the television or the movie theater, the screen is now mobile. In turn, mobility is a quality of the screen.

While “in the traditional road movie, the road functions as a metaphor for the path of history, the impetus and trajectory of human civilization,” as Mikita Brottman and Christopher Sharrett warn us in their introduction to *Car Crash Culture*<sup>653</sup>, in *Natural Born Killers* the road has been replaced by a screen. It is in the subsequent proliferation of screens that we can glimpse the trajectory human civilization will soon follow; a world where everyone assumes they are at the center, each according to the screens they surround themselves with. This apocalyptic vision of future screens seen in *Natural Born Killers* is a glimpse of America in the 21<sup>st</sup> century – a country fixated on violence and the newest fusion of automobility and screens: the smartphone (almost a decade before they were introduced).

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<sup>653</sup> Mikita Brottman and Christopher Sharrett, “Introduction,” *Car Crash Culture*, 2.

**CONCLUSION:  
POSTSCRIPT (POSTCAR? POSTCINEMA?)  
AUTOMOBILITY'S HEIR APPARENT: THE MOBILE SCREEN.**

*Every time that a new technology has been invented, a new energy  
harnessed, a new product made, one also invents a new negativity,  
a new accident.*

-- Paul Virilio<sup>654</sup>

*Now if you're playing a movie on a telephone, you'll never in a trillion  
years experience the film. You'll think you've experienced it, but you're  
cheated. It's such a sadness that you think you've seen the movie on  
your fucking telephone. Get real!*

-- David Lynch<sup>655</sup>

There is a fascinating new branch of film studies taking shape since the turn of the latest millennium, analyzing the cinema's latest screens – laptop, tablet, and smartphone. Termed “The Fourth Screen” in 2005 by Juliana Pierce, the screen of your smartphone has moved up in the ratings since then (Pierce’s original list was arranged in order of appearance: cinema, television, computer screen, phone).<sup>656</sup> While a handful of film historians recognize the Nickelodeon as an important precursor for the privatized experience of cinematic spectatorship, many writers herald the smartphone as a unique 21<sup>st</sup> century innovation seemingly without precedent. What no writer has yet recognized is the role that “automobility” has played in many of the “innovations” the smartphone has supposedly introduced to society (for better and worse). While I cannot address all of the aspects in detail in this conclusion – indeed, that would be another book in itself (possibly my next book) – I do wish to at least offer a framework for a course of investigation, building off the examination of automobility and the cinema in the pages that precede this.<sup>657</sup>

First off, I would propose a different genealogical timeline. While the Nickelodeon of the late 19<sup>th</sup> and early 20<sup>th</sup> century does offer a similar viewing model to the smartphone of the 21<sup>st</sup> century, the lure of watching anything on your mobile phone is not necessarily the privatized

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<sup>654</sup> Paul Virilio interviewed by Vignia Masden, “Critical Mass,” *World Art*, No. 1 (1995), 81.

<sup>655</sup> “David Lynch on Movies on the iPhone,” *YouTube*. <https://www.youtube.com/watch?v=BcNLEwf2pOw>. Accessed December 23, 2020.

<sup>656</sup> Juliana Pierce, “Feature: The Fourth Screen,” *Off The Air: Screenrights Newsletter* (August 2005). [http://www.joemiale.com/press/screenrights\\_01.pdf](http://www.joemiale.com/press/screenrights_01.pdf). Accessed December 14, 2020.

<sup>657</sup> One of the other areas I will also be exploring in my subsequent research and writing is the relationship of automobility and race, briefly touched upon in Chapter 1. As automobility continues to operate as “both a disciplinary technology and a form of capital” – to use Seiler’s phrase (see Cotton Seiler, *Republic of Drivers*, 11) – it continues to be an active force in the racialization of cities in this country, as well as a continued focus of racism. As I further develop this project, I will be exploring this subject in much more depth.

viewing experience, but rather, the mobility it offers. With that in mind, the first approach to movie exhibition that fused the cinema with mobility would have been *Hale's Tours and Scenes of the World*, introduced at the World's Fair in 1904; while the first to specifically fuse cinema with automobility was *Tim Hurst's Auto Tours* in 1906. (In *Hale's Tours*, the theatre was designed to look like a locomotive car where "phantom rides were projected onto a 'window' and motion was simulated in order to recreate the physical and visual experience of rail travel."<sup>658</sup> Similarly, *Tim Hurst's Auto Tours* offered a cinematic experience from the point of view of a giant touring car traveling through the streets of various cities.) In both cases, the cinematic experience was conceived of as a "movie ride."<sup>659</sup> While the novelty factor of this meant *Hale's Tours* would be ignored by most early film historians and critics (and, indeed, *Tim Hurst's Auto Tours* still is), in the 21<sup>st</sup> century, film historians like Tom Gunning and Lauren Rabinovitz have rescued *Hale's Tours* from such an oversight. Not only were *Hale's Tours* the most successful exhibitors for several years during their decade-long lifespan, they were, according to Raymond Fielding, responsible for shifting film exhibition out of the Nickelodeon and into a theater space.<sup>660</sup>

In addition to providing this first link of (auto)mobility and the cinema, these "movie rides" also introduced a very different model for spectatorship, laying the groundwork for how we now watch films on our mobile devices, over a century earlier. As Phillipe Gauthier points out in "The Movie Theater as Institutional Space: Hale's Tours and Film Historiography," "[...] We should recall that in Hale's Tours venues viewers were free to look not only at the screen but also at the space around them and thus to interact with other people, like on a real train journey. As a result, the screen (image)-viewer relationship, so dear to the reception model of classical

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<sup>658</sup> Christian Hayes, "Phantom Carriages: Reconstructing Hale's Tours and the Virtual Travel Experience," *Early Popular Visual Culture*, Vol. 7, No. 2 (July 2009), 185.

<sup>659</sup> See Chapter One for a more in-depth discussion of both of these "movie rides."

<sup>660</sup> While mentioned in Terry Ramsay's 1926 film history, *A Million and One Nights*, the earliest critical appraisal of Hale's Tours is in: Raymond Fielding, "Hale's Tours: Ultrarealism in the Pre-1910 Motion Picture," *Cinema Journal*, Vol. 10, No. 1 (Autumn, 1970): 34-47. According to Fielding: "Hale's crude attempts to simulate reality may seem ludicrous to us now, but the influence of his little show on the emerging motion picture should not be underestimated. It served not only to introduce and popularize the early projected motion picture, but also acted as a bridge which linked the primitive arcade peep shows and vaudeville presentations of the day with the makeshift motion picture theaters which spread across the United States between 1905 and 1910." (47)

narrative cinema, was broken up by this third element, space.”<sup>661</sup> This distracted mode of spectatorship is inherent to how we experience the cinema on our smartphones. Watching something on our phones in a public space means we are constantly negotiating the space around us. Often it also involves interacting with the people right next to us, whether it is a fellow passenger on public transit, barista, parent, child, sibling or student.

The next genealogical step towards a collision of the spaces of automobility and cinema exhibition was introduced in 1933 with the approval of Richard Hollingshead, Jr.’s patent for the world’s first drive-in movie theater.<sup>662</sup> Although it wouldn’t really become popular until the 1950s, the drive-in movie theater remains perhaps the most explicit alignment of automobility and the cinema. Like Tim Hurst’s Auto Tours in 1906, the drive-in encouraged recognition of the unique time-space of the automobile interior; indeed, this was part of the novelty and attraction. Unlike the artificial interior of the early movie rides, the drive-in meant seeing a movie in the familiar interior of your own automobile. With the nest of the automobile providing an extension of the home, or home away from home, in effect, the drive-in experience offers the Traveler-Spectator his or her first taste of what home cinema would be like. Conceived of as an intimate bubble, offering both privacy and a view of the movie screen, the drive-in provides an equally important precursor to the experience of watching a movie on your phone.

But of course before either of these innovations comes the automobile itself as a viewing device – which is of course prefaced by the locomotive and its introduction of panoramic perception. Concepts of the mobile frame aligning human perception with that of a machine originates with the locomotive, but the conception of such a viewing device created in a space that is simultaneously interior and exterior, as well as public and private (and personal) is introduced with automobility. So, while Roger Odin argues in 2012 that “looking at reality

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<sup>661</sup> Philippe Gauthier, “The Movie Theater as an Institutional Space: Hale’s Tours and Film Historiography,” Trans. Timothy Barnard, *Film History*, Vol. 21, #4 (2009), 331. Gauthier goes on to argue that this is one of the reasons that Hale’s Tours (and other “movie rides” have been so ignored by film historians.

<sup>662</sup> To date, the only critical book-length study of the history of drive-in movie theatres is: Kerry Segrave, *Drive-In Theaters: A History from Their Inception in 1933* (Jefferson, NC: McFarland & Company, 1992).

through a frame has now become something natural,” the fact is, it has been natural for over a century thanks to the view of reality offered by automobility, as framed by the windscreen.

The alignment of perception, point-of-view and spectacle with a screen of glass, began with the windscreen long before your smartphone (or even television) came along. With both the smartphone and the automobile there is a primacy of glass. Of course the microscope, telescope and even reading glasses preceded the automobile (and the locomotive before it), but in these cases the pieces of glass enabling a point-of-view are pressed close to your eye; in effect too close to see, the glass becomes invisible, or is looked *through*, whereas with the automobile or your smart phone you are looking at the glass *as* screen. As such, the concept of a mobile screen that you could own first began with the automobile. The “virtual mobility” that the smartphone offers performs a similar act of transportation enabled by automobility. What Nanna Verhoeff describes regarding the Nintendo DS portable video game console in 2009 is equally applicable to the smartphone in 2020: “Space itself is transported: the expansion of space through the media device, whether or not with clean windows, allows the player to do something else, somewhere else. Thus, the mobility of the device comes to stand for the mobility of the medium.”<sup>663</sup> At the heart of this fantasy of perpetually mobile viewing, however, is the same paradox that grounds the traveler in his or her car: the immobile spectator.<sup>664</sup> Though the screen of the smartphone is as mobile as the traveler, there is still a certain stillness required to watch what is on the screen. Verhoeff reminds us of the obvious: “But movement is not mobility; moving one’s hand is not the same as moving around.”<sup>665</sup> As with automobility, this is a haptic form of viewing. A screen you can and should and must touch. As Nanna Verhoeff describes:

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<sup>663</sup> Nanna Verhoeff, “Grasping the Screen: Towards a Conceptualization of Touch, Mobility and Multiplicity,” *Digital Material: Tracing New Media in Everyday Life and Technology*, Ed. Marianne Van Den Boomen, Sybille Lammes, Ann-Sophie Lehmann, Joost Raessens, and Mirko Tobia Schäfer (Amsterdam: Amsterdam University Press, 2009), 216.

<sup>664</sup> See: Anne Friedberg, *The Virtual Window: From Alberti to Microsoft* (Cambridge: The MIT Press, 2006).

<sup>665</sup> Nanna Verhoeff, “Grasping the Screen: Towards a Conceptualization of Touch, Mobility and Multiplicity,” 216.

“When the screen functions as a transparent window, it is invisible as an object. When it is opaque, its materiality or thingness surfaces.”<sup>666</sup>

For authors Franco Casetti and Sara Sampietro the smartphone conjures more than either window or thing; but rather “existential bubbles [...] that allow the subject to create an individual space even within collective environments” when using a mobile device.<sup>667</sup> They go on to explain in more detail:

When using a medium in public situations, one often surrounds oneself with invisible barriers that offer refuge, even though one continues to feel open to the gazes of others. This situation is not dissimilar from that of the traditional movie theater, in which one slips from a collective encounter to individual attention to film; in the first moment one confronts the surrounding public; in the second moment one enters into intimacy with what is represented on the screen. The mobile cinematic spectator reactivates this situation. The institution of this ‘bubble’ allows him to ideally replicate the spatial structure that characterizes the movie theater, even in open and practicable environments.<sup>668</sup>

In this fascinating 2012 article, the authors compare the experience of constructing one’s “bubble” necessary to experience cinema on the iPhone, to the similar experience in the movie theater where the spectator necessarily “slips from a collective encounter to individual attention to the film,” which allows the spectator to enter “into intimacy with what is represented on the screen.”<sup>669</sup> To Casetti and Sampietro, the mobile cinematic spectator reactivates this situation via the smartphone; “On the one hand, he is completely exposed to the surrounding environment; on the other hand, he suspends the reality that surrounds him when he turns his attention to the film offered to him by the device he has in hand in so doing constructs a ‘bubble’ in which he recuperates a direct relationship with the images on the screen.”<sup>670</sup>

I would argue that this conceptualization of a bubble actually originates, more accurately, from automobility, and the time-space the traveler conceives him- or herself in when

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<sup>666</sup> Nanna Verhoeff, “Grasping the Screen: Towards a Conceptualization of Touch, Mobility and Multiplicity,” 213.

<sup>667</sup> Francesco Casetti and Sara Sampietro, “With Eyes, With Hands. The Relocation of Cinema into iPhone,” *Moving Data: The iPhone and the Future of Media*, Ed. Pelle Snickars and Patrick Vonderau (New York: Columbia University Press, 2012): 21.

<sup>668</sup> Ibid..

<sup>669</sup> Ibid..

<sup>670</sup> Ibid..

occupying the nest in the shell that the automobile uniquely provides. In both cases the bubble is suspended from the environment around it in terms of both time and space. In that sense, an even closer comparison than the traditional movie theater space that Casetti and Sampietro describe, would be the drive-in movie experience – which many people are experiencing for the first time in the second half of 2020. Here we see a very clear visualization of the “bubbles” that smartphone users conceive of around them, just as the experience of being in traffic in a heavily populated metropolitan area like Los Angeles provides a similar visualization. Both time-spaces are similarly suspended from the environments that surround them, separating the point of origin from destination, home from work, public from private. Returning to my conception of the chronotope of automobility introduced in Chapter Two will be helpful here as a *chronotope of the smartphone* provides a similar time-space both linked to and informed by the chronotope of automobility. While the chronotope of the road provides the traveler in his/her car and the Traveler-Spectator in the cinema with intersections of sociality, infinite possible meetings, communions or conflicts, the *chronotope of automobility* keeps them both at a distance from one another – each of us isolated in our nest within a shell as we circulate through a community of equally encased drivers. Similarly, it is something I would term the *chronotope of the smartphone* which holds us suspended in the “bubble” mentioned above. As Casetti and Sampietro argue, it is this suspended time-space that explains, at least in part, the smartphone’s seemingly universal appeal. Echoing this, Verhoeff contends: “This is why media of mobility are so attractive: they play with *and* naturalize the time-space continuum.”<sup>671</sup>

As with the automobile, the smooth glass surface of the smartphone’s screen is seen as part of the shell; at the same time, it is also perceived of as the place where we interface with what lies within it, via the touch-screen. In the case of automobility, the shell envelops the nest, protecting it and keeping it safe inside. But with the smartphone the nest, or bubble, seems to

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<sup>671</sup> Nanna Verhoeff, “Grasping the Screen: Towards a Conceptualization of Touch, Mobility and Multiplicity,” 216.

emanate from the tiny shell, extending from it to surround our immediate space and set us apart from the rest of the world.

For French film critic Roger Odin it is “the mental cinema screen [that] encompasses and somehow erases the physical space” of the smart phone user.<sup>672</sup> In the first of two provocative articles written in 2012, Odin claims that this conception of the mental screen is what is activated any time a spectator watches a movie somewhere other than the cinema. To Odin, this referential relation of screens refers not back to the classic model of the movie theater, but rather back to our initial conception of and interaction with cinema. In his follow-up essay, “Spectator, Film and the Mobile Phone,” Odin goes on to argue that the immersive experience of being on our phones is different than how we interact with “the silver screen,” but relates back to our previous experiences with it:

Rather than the apparatus effacing the screen, it is the desire for fiction that is in us, together with our previous experience of the cinema. [...] At other times, the viewer, while continuing to look at what is happening on the mobile, starts looking at the mobile itself, suddenly paying attention to the outside world (the mobile is an object that belongs to the outside world). The viewer is then *in between*. This divided positioning, ambivalent, absent-present, is characteristic of the mobile: with a mobile I’m here, but at the same time also there, with my family, friends, colleagues, anyone who can call me at any time.<sup>673</sup>

In this sense, the bubble of the smart phone user is, in fact, semi-permeable. Sampietro and Casetti make a similar claim, pointing out that “the degree of closure and impermeability of the existential bubbles is strictly tied to the practices of appropriation of the audiovisual text.”<sup>674</sup>

The fact that the smartphone also serves as a method of communication (and in 2020, the most common form of it), means that the user is always accessible by others. Like the automobile, the

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<sup>672</sup> Roger Odin, “The Concept of the Mental Screen: The Internalized Screen, the Dream Screen, and the Constructed Screen,” *Screens*, Trans. Nick Cowling and Marie-Noëlle Dumaz, Ed. Dominique Chateau and José Moure (Amsterdam: Amsterdam University Press, 2012), 179.

<sup>673</sup> Roger Odin, “Spectator, Film and the Mobile Phone,” *Audiences*, Trans and Ed. Ian Christie (Amsterdam: Amsterdam University Press, 2012), 160.

<sup>674</sup> Casetti and Sampietro identify three distinct categories of immersion/permeability: “an *epidermal* experience, a *multifocalized* experience, and an *intimate* experience,” identifying the first as “capricious manner of viewing,” more interested in touching the screen than what they’re actually watching; the second as “an act of vision intertwined with other activities,” where whatever is playing on the phone is not necessarily the focus; and the third level as “an experience of vision [that] may develop into pure contemplation.” See: Francesco Casetti and Sara Sampietro, “With Eyes, With Hands. The Relocation of Cinema into iPhone,” 27.



screen functions as a window with two-way access; you can look out, but that look is just as easily reversed and turned in on its user.

There are even more jarring interruptions common to a smartphone user – i.e., when we lose reception, or the battery dies, causing a severance of our connectivity that we have come to expect, and assume in some ways is ‘natural’. When this happens, our bubble of time-space is punctured and we crash back into the reality of our environment, exposed to the world around us and to the gaze of others. As with the car crash, there is seldom warning of this jarring suddenness. Building from the model of the chronotope of the crash discussed in Chapter Three, this similar experience could be termed the *chronotope of disconnection*. As with the second collision in the car crash the crash of your smartphone occurs too quickly to be seen by the naked eye. With disconnection we feel a sense of loss and displacement; ejected from our bubble instantaneously we are exposed to everything and everyone around us. Depending on your level of addiction to social media, you are just as likely to feel excommunicated, banished from the social realm of connectivity, from family, friends and co-workers; separated from the hive-mind that increasingly serves as memory, conscience and mirror.

The smartphone functions as a mirror at all times. Even when it is off, the dark patch of glass reflects back its owner and his or her closest surroundings, providing a visual register of the bubble he or she conceives around him- or herself. When activated, it responds with an array of apps curated by its owner, reflecting the world of interaction the smartphone user has chosen to prioritize, and assuring its user of his or her absolute control over the worlds that the smartphone can access. Perhaps more importantly, the device is inevitably used to put a frame on the world around him or her to take either photos or movies he or she has made. This frame, too, is crucial in constructing the bubble of the smartphone user, expanding its dimensions to the limits of what the optics of the smartphone can offer the user. According to Roger Odin:

Framing is not just simple observation: the screen is a mental operator, a filter that produces distance and changes the perception of reality as it introduces points of reference (the edges of the frame) that lead us to build relationships that do not exist in reality. [...] The frame cuts and eliminates, reflecting our will to

select in the world what we want to keep, what seems interesting or 'beautiful' to us. [...] The frame effect can then turn into a screen effect: framing to make something seen, but also screening oneself from the world.<sup>675</sup>

But just as likely (probably more so), Odin reminds us, "one also tends to turn the frame-screen towards oneself," and "the process shows both a will for self-distancing (the frame-screen is held at arm's length), but also a will for self-affirmation by including oneself in a chosen space, with or without chosen partners."<sup>676</sup> Here, according to Odin, "Through the frame, the screen functions as an operator in the construction of the self."<sup>677</sup>

This conception is of course not a new one either. With automobility the windscreen functions in an identical fashion (as discussed in Chapter Two), as a filter that "produces distance and changes the perception of reality." Sealed in our nest within the shell, the windscreen is the original mobile screen, working as a vision machine that enables our power to edit the reality of our environment via our power over directionality and velocity. Again we return to Merleau-Ponty's conception of the *habit*, which is at work equally in our use of smartphones, as in our automobiles. In both cases we "take up residence in them, or inversely to make them participate within the voluminosity of one's own body. Habit expresses the power we have of dilating our being in the world, or of altering our existence through incorporating new instruments."<sup>678</sup> Like Merleau-Ponty's examples of the typist and the organist, and my own examples of the traveler in the automobile and the Traveler-Spectator in the cinema, the smartphone allows us to dilate our being in the world and incorporate this latest new instrument into our being, even as it alters our existence. I would, in fact, take this one step further, and argue that interaction with the mobile screen of the smartphone triggers our experience with the mobile screen of automobility, activating our habit, informing our experience, so that the smartphone user is, in effect, *always* a Traveler-Spectator. In this sense, in addition to

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<sup>675</sup> Roger Odin, "The Concept of the Mental Screen: The Internalized Screen, the Dream Screen, and the Constructed Screen," 184.

<sup>676</sup> Ibid..

<sup>677</sup> Ibid..

<sup>678</sup> Maurice Merleau-Ponty, *Phenomenology of Perception*, Trans. Donald A. Landes (New York: Routledge, 2012 [1945]), 144-145.

providing the user a reflection of self, the smartphone is also always providing a mirror on automobility.<sup>679</sup>

Just as automobility helped shape the rules of perception in the cinema, so too does the configuration of the Driver-Car, the 20<sup>th</sup> century's first and preeminent fusing of human and machine, prefigure the Human-Phone hybrid that now proliferates on our planet. But while automobility helped shape a cinematic viewer largely as a passenger (following the lead of Schivelbusch's locomotive and its model for 'panoramic perception'), the smart phone addresses the viewer as a *driver*. The smart phone is, after all, necessarily, a hands on experience. The tactility offered by the smartphone also relates to automobility, both of which are linked to ideas of mastery and control. Like the experience of being at the (steering) wheel, and distinctly *unlike* the movie theatre, where the screen dominates the room but at the same time is kept at a distance from the cinema-goer, and comes with the warning (either assumed or explicit): do not touch. Like the windscreen, the screen of the smartphone that you hold in your hand, can be positioned just where you want to, in the lap, against a backdrop of sky, stars, sea or sand.

In deference to the pointed statement by David Lynch that opened this chapter, deriding the screen of the smartphone (a sentiment which many others share), at least as many more feel just the opposite. For perhaps the second time in the history of screens the logic of scale has been inverted: bigger is no longer better (television was of course the first time). For Roger Odin, this is due to the fact that generations of spectators have now grown up with a multiplicity of screens to choose from: "[...] It seems that we are now witnessing the emergence of a spectator less bothered by the small screen, a viewer born in front of the television, used to playing on his mobile, and therefore ready to watch anything on the mini-screen."<sup>680</sup> A great deal of this is also due, no doubt, to the sheer convenience of a portable, pocket-sized screen.

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<sup>679</sup> Likewise, it is the nest within a shell that allows us to screen ourselves from the world in relative anonymity. At the same time the sheer number of smartphones in the world now, too, enables a certain anonymity, because its users look largely like everyone else, huddled over their respective phones, performing the same poses and the same movements; not unlike the endless Driver-Cars that populate our roads.

<sup>680</sup> Roger Odin, "Spectator, Film and the Mobile Phone," 159.

With the iPod and the mp3 the concern for sound quality was gleefully set aside in the name of convenience. A similar trade-off is made with the small screen, and again, for most, convenience wins again. But of equal importance in both formats is the mobility that is an inherent quality of this perceived convenience. For film critics Martine Beugnet and Annie Van Den Oever, again the issue is mastery and control: “Unlike the experience of cinema spectatorship, it is a highly individualized mode of perception that yields a specific relation to the image in terms of intimacy as well as control and possessiveness.”<sup>681</sup>

Partly, this sense of possessiveness is linked to scale, and partly control. Not only does the smartphone spectator tower over Hollywood’s biggest celebrities on the tiny screen, he or she can control his or her movements by controlling the flow of the film itself with nothing more than a finger. Again tactility puts the smartphone spectator very literally in the driver’s seat, controlling the direction and speed of any film’s narrative. Here, immersion is still a result of scale, but in the exact opposite of the classic model of film exhibition in movie theaters where the understanding has always been: bigger is better. In an insightful article from 2016 focused on the issue of scale, Martine Beugnet and Annie Van Den Oever explain:

[...] Miniaturization yields a definite if ambiguous appeal: there is still something extraordinary, as well as grotesque, in the sight of moving, breathing, human forms reduced to the size of insects. The grotesque aspect is even more pronounced when those reduced forms are those of famous actors and actresses engaged in the frantic tempo of an action movie. For, miniaturized and enclosed in the limited space of a very small screen, their condensed movements look frenzied and their actions, even the most heroic ones, become even more derisory when taking place in the space a screen of a few inches affords, and can be cut short by the simple pressure of a thumb.<sup>682</sup>

Part of the sense of possessiveness smartphone users have comes from the fact that many of them have taken photos and made their own movies with the very same piece of technology. Stored away in a different app, accessing one’s home movies is only centimeters away (likely, less) from the YouTube, Amazon or Netflix apps where you can just as easily call

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<sup>681</sup> Martine Beugnet and Annie Van Den Oever, “Gulliver Goes to the Movies: Screen Size, Scale and Experiential Impact – A Dialogue,” *Screens*, Ed. Dominique Chateau and Jose Moure (Amsterdam: Amsterdam University Press, 2016), 254.

<sup>682</sup> Martine Beugnet and Annie Van Den Oever, “Gulliver Goes to the Movies: Screen Size, Scale and Experiential Impact,” 250.

Hollywood's latest, biggest-budget offering to the same hand-held screen. The effect seems to suggest to the smartphone user that he or she has now become the exhibitor and curator. I would even go further, to argue that it is this sense of possession of the form of exhibition that could explain, at least in part, the shift in preference of most spectators from the physical mediums of DVD/Blu-Rays to streaming. Here, the sense is, if you can access the films you want to see through your most personal of devices (laptop or phone) that is a method of ownership more personal/powerful than any physical medium can offer.

Tellingly, smartphone owners now outnumber automobile owners nearly 3 to 1; with 3.5 billion smartphone owners globally in 2020 (and 4.8 billion combined smart and mobile phone owners)<sup>683</sup>, while there are an estimated 1.4 billion automobile owners in the world in 2020.<sup>684</sup> Unlike the automobile, which is a hybrid assemblage we conjoin with only when it is time to go somewhere, our smartphones are always on us (in our pockets, purses, bags) or near us (on the dining room table, on the couch, on the bed, next to the toilet); more often than not they remain in our hands; or at least, always in reach. Which in turn means mobility is always just within reach where we are always in control. Constant Traveler-Spectators, safe in our bubbles.

#### **CODA: PANDEMIC MODES OF PRESENTATION OF THE AUTO-SELF**

If this was still 2019, my dissertation would have ended there.

When I began the process of writing this dissertation two years ago, the original plan was to close with a discussion of the decline of the automobile and film industries with the shift to the smartphone as the preferred mode of mobility in the 21<sup>st</sup> century. While digital projection and storage signal the 21<sup>st</sup> century's preferred modes at the movie theatre, the preferred exhibition space has increasingly shifted to home theatres, laptops, tablets, and, most recently, the smart phone. At virtually the same time, there has been a shift from automobility to the

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<sup>683</sup> Ash Turner, "How Many Smartphones Are in the World?" *Bank My Cell*. (December 2020) <https://www.bankmycell.com/blog/how-many-phones-are-in-the-world#>. Accessed December 20, 2020.

<sup>684</sup> "How Many Cars Are There in the World?" *Cars Guide*. (December 16, 2020). <https://www.carsguide.com.au/car-advice/how-many-cars-are-there-in-the-world-70629>. Accessed December 20, 2020

digital domain as the preferred method of mobility. This, coupled with the now-realistic promise of driverless cars, seem to signal the eventual obsolescence of automobility – and sooner than later.

But then came 2020...and with it, Covid-19, and the resulting Pandemic...and suddenly automobility is more important than it has been in *decades*. And not in entirely new ways. (Who, after all, could have ever predicted the return of the drive-in movie theater?!) Although we have seen a marked shift from the automobile to the smartphone as the favorite object of mobility, now twenty years into the twenty-first century, with the Pandemic, we see a return to the centrality of the automobile. Between the surprising rebirth of the drive-in movie theater and the ever-increasing reliance on delivery culture, automobility is more relied upon than it has been in years, especially in the United States. As one Washington Post writer recently quipped: “If the response to the pandemic has been dysfunctionally American, perhaps the solution, playing off a love of the automobile can be quintessentially American.”<sup>685</sup>

Although no longer described as “The Information Superhighway” as it was when first introduced, the internet remains a realm accessed in a manner informed by automobility. Whether shopping or scrolling (or a combination of the two), the act is an update on driving around with no set destination – in other words, just the latest update on the *dérive* – where the point is to just keep moving. As Anne Friedberg points out in *Window Shopping*, “the speculative gaze of the shopper was an instrumentalization of the *mobilized gaze*,” where “the modes of distracted observation of the flâneur and flâneuse became the prototype for the shopper.”<sup>686</sup> Just as the arcades of the 19<sup>th</sup> century were the “forerunner of the department store,” of the 20<sup>th</sup> century, as Walter Benjamin (and Annie Friedberg) reminds us, the internet shopping experience of the 21<sup>st</sup> century is an endless arcade of windows, all arranged for the

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<sup>685</sup> Steven Zeitchik, “This is What Going to a Splashy New Movie Outside Your House Feels Like Right Now,” *The Washington Post* (October 16, 2020). <https://www.washingtonpost.com/business/2020/10/16/drive-in-movies-pandemic/>. Accessed December 11, 2020.

<sup>686</sup> Anne Friedberg, *Window Shopping: Cinema and the Postmodern* (Berkeley: University of California Press, 1994), 58.

mobile gaze of the shopper.<sup>687</sup> Now, more than ever before, we shop online and get everything delivered – from mega-corporations like Amazon, Target, Wal-Mart to our local grocery stores like Von’s, Ralph’s and Bristol Farms. Every restaurant now has a delivery option, thanks to online services like Grub Hub, Postmates, Uber Eats, and Caviar and their fleets of tireless drivers. While transportation has always been key in keeping us fed thanks to sleepless squadrons of truck drivers, many people now associate eating directly with automobility.

At the same time, restaurants with drive-thru windows have been booming, with restaurants like McDonalds, Burger King, Taco Bell and Snake Shack adding additional drive-thru lanes and quickly adopting new “Go Mobile” designs encouraging no contact ordering and curbside pick-up that will remain long after the Pandemic is over. As *QSR Magazine* points out in their 22<sup>nd</sup> annual report on drive-thru’s: “The brands that are emerging strongest from the coronavirus pandemic are those with drive thrus,” indicating that access to automobility is increasingly aligned with brand recognition.<sup>688</sup> As a recent *New York Times* article points out: “Now, the drive-through, with its brightly-colored signage and ketchup-stained paper bags, has taken on a new importance in the age of social distancing.”<sup>689</sup> Many of the nation’s largest restaurant chains, like McDonald’s, Burger King, Taco Bell, Chipotle Mexican Grill, Shake Shack, Panera Bread, Wawa, and Starbucks, are all focusing on drive-thru construction in coming months, prompting one CNBC story to exclaim: “The last drive-thru boom was in the 1970s. The next one could be in the 2020s.”<sup>690</sup> So, like the 1970s, and before that in the 1950s and 1960s, the built environment of many of our urban spaces will be taking shape around the increased importance of automobility.

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<sup>687</sup> See Walter Benjamin, *The Arcades Project*, Trans. Howard Eiland and Kevin McLaughlin (Cambridge, MA: Harvard University Press, 1999).

<sup>688</sup> Sam Oches, “Inside the New Era for Drive Thru,” *QSR* (October 2020). <https://www.qsrmagazine.com/drive-thru/drive-thrus-big-day>. Accessed December 16, 2020.

<sup>689</sup> David Yaffe-Bellany, “Drive-Throughs Are Now a Lifeline for Fast-Food Chains,” *The New York Times* (May 1, 2020). <https://www.nytimes.com/2020/05/01/business/coronavirus-fast-food-drive-throughs.html>. Accessed December 16, 2020.

<sup>690</sup> Amelia Lucas, “Pandemic sparks a Building Boom for Restaurant Drive-Thrus,” *CNBC* (August 5, 2020). <https://www.cnb.com/2020/08/05/coronavirus-pandemic-sparks-a-building-boom-for-restaurant-drive-thrus.html>. Accessed December 16, 2020.

“Ultimately, the pandemic could provide a ‘moment of redemption,’ for drive-throughs,” Adam Chandler, author of *Drive-Thru Dreams* (a history of fast food), pointed out in a recent *New York Times* article.<sup>691</sup> Echoing this sentiment, Shake Shack CEO Randy Garutti offered: “Look, in the moment of safety, people want to stay in their cars,” as a part of his rationale for the chain adding drive-thru lanes for the first time in the company’s history.<sup>692</sup> Restaurant owners aren’t the only businesses expanding into the drive-thru business. California, Colorado, and, most recently, Nevada have legalized drive-thru windows for marijuana dispensaries. As Nevada state senator Tick Segerbloom reasoned, “Everybody in Las Vegas goes to In-N-Out or whatever else. What would be different about a dispensary?”<sup>693</sup>

The drive-in restaurant is also thriving in the pandemic. As Randy Kaplan, co-owner of The Parkette drive-in in Lexington, Kentucky points out surprisedly: “This business was more of a novelty until now, but people’s mindsets are changing, and they’re re-examining things and discovering how a drive-in can be a fun way to eat out safely.”<sup>694</sup> For most states, dining rooms have been off-limits on or off for months now, but with a drive-in restaurant social distancing is built in, allowing for families and friends to “roll down their windows, keep a safe distance, ‘and eat together but apart.’”<sup>695</sup> Many terrestrial restaurants have embraced the concept, offering entertainment as part of the package, from drive-in concerts to drive-in movies to what is surely the world’s first drive-thru strip club/restaurant.<sup>696</sup> On the other end of the (spiritual) spectrum (or not), drive-in religious services are likewise booming, with pastors, preachers and priests

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<sup>691</sup> David Yaffe-Bellany, “Drive-Throughs Are Now a Lifeline for Fast-Food Chains.”

<sup>692</sup> Amelia Lucas, “Pandemic sparks a Building Boom for Restaurant Drive-Thrus.”

<sup>693</sup> Blake Apgar, “Marijuana Dispensary Drive-Thru Windows Approved for Clark County,” *Las Vegas Review-Journal* (August 19, 2020). <https://www.reviewjournal.com/news/politics-and-government/clark-county/marijuana-dispensary-drive-thru-windows-approved-for-clark-county-2099432/>. Accessed December 16, 2020.

<sup>694</sup> Saundra Latham, “How Drive-In Restaurants Are Catering to Customers Amid the Pandemic,” *Cheapism* (May 8, 2020.) <https://blog.cheapism.com/drive-in-restaurants-pandemic/>. Accessed December 16, 2020.

<sup>695</sup> Ibid..

<sup>696</sup> No, I’m not making this up. See Samantha Swindler, “A Drive-Thru Strip Club, Movie Popcorn to Go: Oregon Businesses get Creative During Coronavirus,” *The Oregonian/Oregon Live* (May 6, 2020). <https://www.oregonlive.com/living/2020/04/a-drive-thru-strip-club-movie-popcorn-to-go-oregon-businesses-get-creative-during-coronavirus.html>. Accessed December 16, 2020.



addressing their congregations from the front steps or roofs of their churches, looking out on their congregants in the parking lot sealed safely in their automobiles.<sup>697</sup> A Google search in December of 2020 will turn up a seemingly endless list of articles detailing, and usually marveling at the seemingly endless applications of automobility during the pandemic. The list of options now accessible from the safety of your car would have been unthinkable only 10 months ago: drive-thru communion, drive-thru confessional, drive-thru graduation, drive-thru wedding, drive-thru funeral, drive-thru naturalization ceremony, drive-thru veterinary appointments, drive-in music festival, drive-thru food bank, and the drive-by birthday party.<sup>698</sup> In all of the drive-in/drive-thru forms of entertainment, honking your car's horn has replaced applause, and the drive-by birthday party, similarly, involves a caravan of cars and a chorus of honking instead of song.

The only delivery service that has suffered because of the Pandemic is the one dedicated to the delivery of human beings – ride-share car services like Uber and Lyft. This, too, provides another testament to the perception of the increased insulation the nest within the shell provides. Only in this case it results in a threat to the passenger – sealed strangers inside the safety of the nest within a shell *too* close for comfort or safety. (Indeed, in the broader sense, the distrust of public places extends to all forms of public transit, upping the importance of the privatized space automobility offers all over again.) Even so, current estimates hold that over two million people drive for Uber and Lyft in the United States alone (and it was estimated that Uber alone has nearly four million drivers in the world in 2019).<sup>699</sup> And this number is only expected to increase, given the number of people who are expected to be permanently out of

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<sup>697</sup> Holly Yan and Chuck Johnston, "From Drive-In Theaters to Online Services, Churches Celebrate Easter in Safe and Creative Ways," CNN (April 12, 2020). <https://www.cnn.com/2020/04/12/us/easter-church-services-trnd/index.html>. Accessed December 16, 2020.

<sup>698</sup> For some pretty incredible photographs of most of these events, see: Benazir Weheilie and Marie Barbier, "How We're Relying on Our Cars During the Pandemic," CNN (June 24, 2020). <https://www.cnn.com/2020/05/07/world/gallery/drive-thrus-drive-ins-coronavirus/index.html>. Accessed December 16, 2020.

<sup>699</sup> Melissa Berry, "How Many Uber Drivers Are There?" *The Ride Share Guy* (November 20, 2020). <https://therideshareguy.com/how-many-uber-drivers-are-there/>. Accessed December 16, 2020.

work due to the Pandemic.<sup>700</sup> Fitting into the not-so-distant future of the driverless car, the reliance on car services and ride-sharing has, arguably, already created a new sub-division of the lower-middle class: The Driver. Though so far discussed only in terms of a broader “gig economy,” there are broader social ramifications as well, as Uber has been revealed to be manipulating their drivers through socially engineering; in effect creating a uniform Driver-Car that will offer a uniform experience for customers and that, in effect, treats their employees like customers. The broad range of controls varies from active monitoring of their drivers “through the data they generate on the job” to “in-app behavioral nudges that influence when and where drivers work to the threat of account deactivation if drivers don’t follow some of Uber’s behavioral ‘suggestions.’<sup>701</sup> At the same time, Uber’s direct interaction with the drivers has been cut down to almost nothing, with drivers receiving automated responses via email based on keywords in the text of their emails, often managed by third-party companies.<sup>702</sup> This treatment betrays a shift in focus on the part of Uber corporate from the Driver to the Car, which is a reflection of how the customer sees it as well, reconfiguring the hybrid assemblage in order of priority as: *Car-Driver*; a necessary step in the evolution of the driverless car; or getting where you are going without having to take responsibility for actually driving and/or navigating.

Of course one of the most important drive-thru applications/innovations of the year remains drive-thru coronavirus testing, which began in South Korea on February 23, 2020. In one of the first news pieces in the U.S. on the innovative new approach, the lead on a print story on CNN opened: “South Korea has come up with an innovative way of testing for the novel coronavirus – and it was inspired by the drive-through counters at McDonalds and Starbucks,

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<sup>700</sup> Research done at the University of Chicago estimates that 42%, or about 11.6 million people, who lost their jobs this spring will likely become permanent. See Rahael Solomon, “Most Americans Who Lost Jobs Describe Layoffs as Temporary, But Research Indicates Otherwise,” CNBC (May 20, 2020). <https://www.cnbc.com/2020/05/20/most-americans-see-layoffs-as-temporary-but-research-shows-otherwise.html>. Accessed December 16, 2020.

<sup>701</sup> Alex Rosenblat, “When Employees Become ‘End Users,’” *Slate* (March 15, 2019). <https://slate.com/technology/2019/03/uber-gig-workers-customers.html>. Accessed December 16, 2020.

<sup>702</sup> *Ibid.*.

officials say.”<sup>703</sup> On what was probably the first television announcement of the innovative approach, CNN’s Ivan Watson reported that not only is the drive-in a quick and efficient approach, it is also safe because it limits the exposure of health care officials to the people they are testing.<sup>704</sup>

Since then, it has seemed that the nest within a shell provided by automobility has never been safer – with the proof provided by the medical world’s embrace of the drive-thru model. At the tail-end of 2020, the automobile is an unassailable extension of the home; the safe space it provides extends to the safety of one’s automobile. (Certainly being in an automobile is thought by most to be safer than being indoors, and arguably safer even than being outdoors.) At the same time, the comfort the nest provides is now lined with an additional layer of nostalgia, which reinforces this feeling of safety. As one *New York Times* article points out, the appeal of the drive-thru is not only because “the experience of ordering a burger from behind the wheel feels more like a reasonable safety precaution than a cold transaction,” but also because “to some, it also feels refreshingly normal.”<sup>705</sup> At the same time, not only is it a reminder of pre-pandemic time spent in the drive-thru lane, but a nostalgic throwback to earlier times, when drive-thrus were introduced, or our experience of them, real or fictional, in the cinema.

The same can be said of the explosive rebirth of the drive-in movie theater. In an even more unlikely rebirth than the recent vinyl revival, the drive-in movie theater has proven to be the only reliable option for public film exhibition in 2020.<sup>706</sup> Unlike the drive-in restaurant, few

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<sup>703</sup> Ivan Watson and Sophie Jeong, “South Korea Pioneers Coronavirus Drive-Through Testing Station,” CNN (March 3, 2020). <https://www.cnn.com/2020/03/02/asia/coronavirus-drive-through-south-korea-hnk-intl/index.html>. Accessed December 16, 2020.

<sup>704</sup> “How Drive-Through Testing Could Limit Coronavirus Contagion,” CNN (March 2, 2020). <https://www.cnn.com/videos/world/2020/03/02/coronavirus-outbreak-drive-through-testing-south-korea-watson-intl-ldn-vpx.cnn>. Accessed December 16, 2020.

<sup>705</sup> David Yaffe-Bellany, “Drive-Throughs Are Now a Lifeline for Fast-Food Chains.”

<sup>706</sup> In a move further legitimizing the drive-in theater renaissance (at least in the short term), the Academy of Motion Picture Arts and Sciences announced in October that drive-in screenings will now count towards qualifying a film for the 93<sup>rd</sup> Academy Awards ceremony, scheduled for April 25, 2021. Typically the drive-in movie theater has been reserved for second runs and revivals or retro-themed films to heighten the previously-assumed retro experience, but in 2020, the drive-in theaters have proven the only reliable space for public exhibition. Just how long the Academy will extend this exception remains to be seen. (See Scott Feinberg, “Oscars: Drive-In Screenings Will Now Count Towards Eligibility,” *The Hollywood Reporter* (October 7, 2020). <https://www.hollywoodreporter.com/race/oscars-drive-in-screenings-will-now-count-towards-eligibility-exclusive>. Accessed December 19, 2020.

under the age of 60 had ever experienced a drive-in movie before this year. So the experience for most is a throwback to times they never experienced personally, but had more likely only seen in the fictional worlds of cinema. At the drive-in movies, the time-space of the nest of the automobile is thrown back in time, suspended between a past they likely never experienced (or experienced a fictionalized version of it on screen) and a present that seems often too dark and overwhelming to be real. The comfort the drive-in movie seems to provide prompted one Los Angeles Times writer to describe the return of driver-in movies as: “a communal act for the age of coronavirus – that very strange time in which we climb into our cars to be among other people.”<sup>707</sup> Alternately a Washington Post writer argued: “There’s a private-public dichotomy to drive-ins that perfectly complements this Zoom-ified moment: instead of feeling together on a computer screen while being separate, a drive-in offers the possibility of being together while feeling separate.”<sup>708</sup> And perhaps this too offers at least part of an explanation for the popularity and trust of the drive-in movie theatre. In other words, it appeals because it reminds them of Zoom. (Although at the same time, I would argue that some of the eagerness and ease of Zoom’s acceptance could, at least in part, be explained because of its similarity to the experience of being in traffic on a freeway!)

Similarly, just sharing the space of the road with other travelers is, in itself, a reminder of the pre-pandemic world, and an offering of normalcy on some level, even if the roads are less populated than they were before the Pandemic. Spaced out on the freeway, suspended in space and time from all the cars around you, the traveler gets a simultaneous sense of safety and a sense of community that is otherwise highly absent in the world in 2020. Seen this way, the idea of highway safety takes on an entirely new set of meanings; in response, the nest and the shell, take on new responsibilities. The fact that just the act of driving itself (or riding along as

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<sup>707</sup> Carolina A. Miranda, “Drive-Throughs and Drive-Ins Were Fading. Coronavirus Made Them a Lifeline,” *Los Angeles Times* (May 6, 2020). <https://www.latimes.com/entertainment-arts/story/2020-05-06/coronavirus-drive-through-drive-in-were-on-the-way-out-the-pandemic-revived-them>. Accessed December 16, 2020.

<sup>708</sup> Steven Zeitchik, “This is What Going to a Splashy New Movie Outside Your House Feels Like Right Now,” *The Washington Post* (October 16, 2020). <https://www.washingtonpost.com/business/2020/10/16/drive-in-movies-pandemic/>. Accessed December 11, 2020.

passenger) is reassuring of normalcy, illustrates Merleau-Ponty's *habit* at work in a somewhat different way. Returning to the instruments we know, like the automobile, activates our previous encounters with it. Even in these extraordinary times, automobility remains a constant, and our experience of the automobile is a cumulative one, no matter where we are inside the car – at the wheel, in the passenger seat, or one of the seats behind that. This sensation is both a product of lived experience and bodily memory, and this is part of our experience of automobility. In 2020, that experience is reassuring.

The conception of the windscreen, however, has changed. It is as if it has somehow thickened; now, not just a window on the world, but closer to the microscope, or medical screen, as it ensures a safe distance from what is seen. Enabling a view that is conceived of as protected, not just from a critical distance, it is a view that can be conceived of as sterile. Travelers in the automobile assume that which is in the nest is safe behind glass, while anything outside of it could carry the virus. At the same time, those in the medical profession working at various drive-in testing sites across the world conceive of every nest as being potentially infected, and contained inside the nest. Even with the window rolled down the exchange performed between the person administering the test and the one(s) receiving it are conceiving of the time-space of the test as it is conducted both in- and outside the car as safe to all parties. Both parties in the exchange rely on the roles of the nest and the shell of the automobile to remain stable, clearly dividing and defining interior and exterior space (even with the window down).

Here we see the chronotope of automobility at work. At the testing station, as on the road, it is what keeps travelers at a distance from one another – each, isolated in our nest within a shell, as we circulate through a community equally encased in their own respective nests-within-shells. As discussed earlier, while the time-space of the road is shared by all who travel on it, the time-space of each automobile is singular and unique, in effect, held in suspension both from the road and from each other. Each of these time-spaces are experienced as an

individualized packet, nestled into its individual shell and in sync with each other on the road, or in the layout of lanes parceled out in a parking lot leading to Covid-testing sites.

Interestingly, the model of the bubble is also being mobilized by epidemiologists and physicians in 2020 to conceive of the safe space necessary to avoid contagion. Like the bubble of automobility and the similar one conceived of by the smartphone user, in the epidemiology of Covid-19, the bubble is used to conceive of the number of people you are in contact with, mask-free, in an interior space. As Whitney Robinson, an epidemiologist at the University of North Carolina explains, the bubble evokes a concrete image of a “closed object with a defined inside and outside.”<sup>709</sup> Communications professor Jayson Dibble echoes this, pointing out: “If we’re going to observe the concept of bubbles, then there have to be insiders and outsiders.”<sup>710</sup> As yet, no-one has linked these bubbles (the Covid bubble, the smartphone bubble and the bubble of automobility) together, but this linkage could help to explain the popularity of the drive-in movie experience, where not only can the bubble effect can be seen clearly, but it provides one of the few places where one bubble can see other bubbles from a safe distance. It is also one of the few locations where the usually singular time-spaces of each bubble are in sync with one another – if only for the duration of a screening. Of course, the same can be said of the experience of traffic, or for that matter, waiting in line to be tested for Covid.

In 2021 the drive-thru model will be put to its most serious role yet: drive-thru inoculations. Many states in the U.S. and many countries abroad have been planning for drive-thru inoculation clinics for months, based on the success of the drive-thru testing sites. In July 2020, the Center for Disease Control published guidance for the procedure on their website. According to the C.D.C., the main challenges conceptualizing a mass vaccination plan in drive-thru form revolve around how the medical team will navigate the nest and the shell, such as

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<sup>709</sup> Rachel Gutman, “Sorry to Burst Your Quarantine Bubble,” *The Atlantic* (November 30, 2020). <https://www.theatlantic.com/health/archive/2020/11/pandemic-pod-bubble-concept-creep/617207/>. Accessed December 20, 2020.

<sup>710</sup> Holly Yan, “Want to Hang with Some Friends (Mask-Free) This Winter? Make a Covid-19 Bubble,” *CNN* (December 17, 2020). [http://lite.cnn.com/en/article/h\\_d59300c17a203caf776798390bba22ea](http://lite.cnn.com/en/article/h_d59300c17a203caf776798390bba22ea). Accessed December 20, 2020.

“how to access patients in a potentially limited space (including multiple patients in a vehicle, different vehicle heights),” and, more specifically, “identification of the recommended injection site (does a car door need to be opened to administer vaccine correctly?).”<sup>711</sup>

As a November 2020 *Healthcare* article points out: “While drive-through service delivery has a history of several decades now, its use in health services, particularly for mass vaccination purposes, has been very limited and only dates back to the late 1990s and early 2000s when health agencies started to add drive-through sites as one of their flu dispensing strategies.”<sup>712</sup> To date, the widest usage of drive-through vaccinations was during the 2009 H1N1 flu epidemic, which yielded a number of medical studies testifying to the efficiency and safety of the approach.<sup>713</sup> As outlined in the well-researched *Health* article, the advantages of the drive-through vaccination clinic far outnumber the disadvantages in scale if not in number. As they describe it, the advantages include:

(1) low disease transmission risk for staff and public; (2) low exposure to virus (compared to closed settings); (3) large throughput; (4) reduced contamination of health-settings; (5) visitors’ comfort and protection; (6) serving people with mobility issues; (7) accessible to individuals in self-isolation; and (8) useful for geographically scattered populations.<sup>714</sup>

While the limitations are primarily due to various logistical issues:

(1) weather conditions; (2) need for significant logistical preparation; (3) need large and suitable space; (4) clients that might faint in cars; (5) traffic issues; (6) difficulty in communication with people in cars; (7) carbon monoxide exposure of staff; and (8) accessibility issues for those without cars.<sup>715</sup>

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<sup>711</sup> “Considerations for Planning Curbside/Drive-Through Vaccination Clinics,” *Center for Disease Control*. Website (July 2020). <https://www.cdc.gov/vaccines/hcp/admin/mass-clinic-activities/curbside-vaccination-clinics.html>. Accessed December 22, 2020.

<sup>712</sup> Ali Asgary, Mahdi M. Najafabadi, Richard Karsseboom and Jianhong Wu, “A Drive-Through Simulation Tool for Mass Vaccination during COVID-19 Pandemic,” *Healthcare* 8(4) (November 9, 2020), 3. <https://www.mdpi.com/2227-9032/8/4/469>. Accessed December 22, 2020.

<sup>713</sup> Eunha Shim, Lauren Ancel Meyers and Alison P. Galvani, “Optimal H1N1 Vaccination Strategies Based on Self-Interest Versus Group Interest,” *BMC Public Health* 11, S4 (February 25, 2011), <https://bmcpublihealth.biomedcentral.com/articles/10.1186/1471-2458-11-S1-S4>. Accessed December 22, 2020., Eric A. Weiss, Jessica Ngo, Gregory H. Gilbert, and James V. Quinn, “Drive-Through Medicine: A Novel Proposal for Rapid Evaluation of Patients During an Influenza Pandemic,” *Annals of Emergency Medicine* (January 18, 2010), [https://www.annemergmed.com/article/S0196-0644\(09\)01799-5/fulltext](https://www.annemergmed.com/article/S0196-0644(09)01799-5/fulltext). Accessed December 22, 2020., “What Are the Efficiencies of a Mass Vaccination Drive-Through Clinic Compared to a Walk-In Clinic?”, *Homeland Security Digital Library* (2010). <https://www.hsdl.org/?abstract&did=804516>. Accessed December 22, 2020.

<sup>714</sup> Ali Asgary, et al., “A Drive-Through Simulation Tool for Mass Vaccination during COVID-19 Pandemic,” 3

<sup>715</sup> Ibid..

It is telling that the last limitation on the list is the question of accessibility to automobility. The paper was, after all, authored and published in the United States where almost every household has access to at least one automobile. The only medically-related risks listed here are regarding any potential adverse reaction the vaccine might cause, and the potential harm to the people administering vaccine due to emissions. In other words, the nest in the shell is not at risk, nor even in question.

So it seems, in 2020, the nest is safer than ever; or perhaps the shell is thicker than ever; perhaps both. But as a historian (of both film and automobility) well aware of the cyclicality of history, this inevitably leads me/leaves me with questions: (1) when is the next crash? (2) where will it happen? (3) how will the cinema respond?

In 1965 when Ralph Nader's *Unsafe at Any Speed* was published, the stimulus shield was cracked wide open, resulting in a literal overnight worldwide concern for safety. This new focus on the crash was unparalleled in the history of the automobile, but was essentially replaying the same sort of societal awakening that occurred a century earlier regarding the locomotive accident. Again we return to Schivelbusch's observation in 1977: "[...] The more civilized the schedule and the more efficient the technology, the more catastrophic its destruction when it collapses. There is an exact ratio between the level of the technology with which nature is controlled, and the degree of severity of its accidents."<sup>716</sup>

In 2020 we have seen the stimulus shell cracked open once again with the catastrophic destruction of the medical system, and arguably, of society itself as the result of the Covid-19 pandemic. It is no longer just politics that have fractured this country, but the response to a highly contagious and possibly deadly transmissible disease that has splintered society, necessarily sequestering each of us in bubbles. As a response, most of the world has turned to its two preferred forms of mobility: smartphones and automobility.

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<sup>716</sup> Wolfgang Schivelbusch, *The Railway Journey*, 131.



What remains to be seen is how the cinema will respond – both in form and content. With movie releases backed up for the next two years, and virtually all film and television production halted for much of 2020, we have yet to see what new kinds of stories the pandemic will result in, new characterizations, even new aesthetics. For that matter, we will also no doubt see new visions of automobility, from the obvious to the unexpected. When Ralph Nader cracked the stimulus shield open with the publication of *Unsafe at Any Speed* in 1965, resulting in a new paradigm of auto safety and a new relationship of humanity to the automobile; the cinema responded with the road movie and highway horror. We have of course seen paradigm shifts since then – most recently with the turn of the new millennium and the fears surrounding Y2K and the 9/11 bombings of the Twin Towers in 2001, the combination sending ripples through cinema and culture. In these cases, too the notion of safety was challenged on a global scale, cracking the stimulus shield, making everyone reflect retroactively on the unsafety they've been experiencing.

What I find most fascinating, as this dissertation draws to a close at the close of 2020, is that while automobility was the cause of the crack in the stimulus shield in 1965, in 2020 automobility is precisely where much of culture is turning for reassurance as it cracks again with the Covid-19 Pandemic. This speaks to the lasting legacy of pioneering crash researchers Hugh DeHaven, John Paul Stapp, and Derwyn Severy and Ralph Nader, the populist/activist responsible for their research reaching a worldwide audience. At the same time, we should also pause to thank the filmmakers of the driving safety films as well as the filmmakers responsible for the road movies and highway horror films that followed. All of these elements have played a crucial role in padding the nest and thickening the shell to the extent that you will feel safe at your drive-in inoculation in 2021 (and the others that will inevitably follow). Looking beyond that, further into the future, the automobile still seems the safest place to live and breathe and dream.

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