

Bones of Contention:
Forensic Science and Human Rights Violations from the Katyn Forest to The Hague

By

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Abstract

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This dissertation is a history of the use of mass grave exhumations in investigating human rights violations, war crimes, and acts of atrocity in the second half of the twentieth century. This story follows forensic scientists and non-governmental organizations to conflict zones around the world, from Germany in World War II to Latin America, Iraqi Kurdistan, and the former Yugoslavia. As it does so, it tells a story of the increasingly international and scientific nature of human rights investigations, in which forensic scientists and the bones they dig up came to play an important role in the historical and legal reconstructions of genocides and other human rights violations.

In 1930s and 1940s Germany, as elsewhere on the European continent, forensic evidence and forensic experts were common features of criminal investigations and prosecutions. It was in the unlikely context of Nazi Germany, though, that forensic science merged with humanitarian and human rights sensibilities and brought about the first international, scientist-led, forensic investigation of a mass grave containing victims of large-scale violence. In 1943, some of Europe's most respected forensic scientists gathered at a pit in the Katyn Forest, in the western Soviet Union, containing the bodies of some five thousand Polish officers in uniform. The team was tasked with determining which of Europe's totalitarian regimes was responsible for their deaths. This grand forensic experiment and its aftermath anticipated both the value and the challenges of introducing human bodies into legal and historical reconstructions of past events.

After Katyn, large-scale, human rights-driven forensic exhumations did not reemerge for another four decades. When they did, they met an entirely different geopolitical landscape, one in which such investigations found increased resonance with governments, as well as with victims' families and survivors of genocide and other atrocities. This traction helped sustain and proliferate their use around the globe. The thawing of the Cold War allowed space for grassroots calls for transitional justice, efforts to end ongoing human rights abuses and genocides, and to investigate ones that had already occurred. This culminated after the Srebrenica genocide, where forensic evidence was used on an unprecedented scale. In telling a history of how and why international scientists, NGOs, national governments, and international criminal tribunals came to view forensic evidence as valuable in the global post-Cold War project of documenting and prosecuting international crimes, this dissertation is distinguished from recent historiography by its focus on the motivations and actions of the individual practitioners who undertook this human rights project.

To Murphy, and Murphy's Law

BONES OF CONTENTION:

FORENSIC SCIENCE AND HUMAN RIGHTS VIOLATIONS FROM THE KATYN FOREST TO THE HAGUE

Peggy O'Donnell

ii	ACKNOWLEDGEMENTS
iii	MAJOR ARCHIVES
v	PROLOGUE
ix	INTRODUCTION Human Remains and Human Rights
	BEGINNINGS: The Katyn Forest
2	1. Katyn, 1943
27	2. Katyn and Nuremberg, 1944-1952
	CASE STUDIES: Case Studies
51	3. Argentina, 1984
73	4. Brazil, 1985
93	5. Guatemala and Iraq, 1990-1992
	BREAKTHROUGH: International Criminal Tribunals
113	6. Australia, 1990-1991
131	7. Croatia and Rwanda, 1992-1996
	CONCLUSION
164	Srebrenica, 1996
186	BIBLIOGRAPHY

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I cannot thank you enough.

MAJOR ARCHIVES

ACICR	Archives of the International Committee of the Red Cross Geneva, Switzerland
BArch	Bundesarchiv (German Federal Archive) Berlin, Germany Koblenz, Germany
ESPA	Personal Archive of Eric Stover (All documents cited from this collection are in possession of the author.) Berkeley, California
HU OSA	OSA Archivum (Open Society Archive), Central European University Budapest, Hungary
NACP	United States National Archives and Records Administration College Park, Maryland



The evil that men do lives after them; the good is oft interred with their bones.

Julius Caesar

William Shakespeare

PROLOGUE

THE ROADS IN northeastern Bosnia are beautiful. They pass through endless stretches of fertile farmland and lush green forests, winding so wildly that another American told me he always brings a Ziplock baggie on road trips to throw up in. After an hour in the car with my driver, who I will call Ivan, a Bosnian Croat and a Sarajevo native, I could see why. I asked Ivan, a madman behind the wheel, to slow down a bit, hoping to recalibrate my inner ear. He grudgingly obliged. At the very least, his experience on these roads prevented us from ending up upside down in a roadside ditch. This was the fate met by an older model Peugeot that swerved into the other lane to charge past us on a curvy section of the M-19 highway, its diesel engine grumbling loudly. Ten minutes later, we came upon the Peugeot again, roof-down in a ditch, its wheels facing the sky. Ivan slowed, and both of us started out the window at the four dazed passengers standing by the side of the road. Ivan sniffed. “It has Serbian plates.” His tone suggested I should know what that meant, but at the time I wasn’t sure I fully did.

What I was able to grasp, though, were the significance of the road signs. Shortly after leaving Sarajevo, Ivan and I crossed into the Republika Srpska, a Serb administrative entity within the country of Bosnia and Herzegovina. The Republika Srpska was formed in 1992 by referendum, when the Serb population voted to secede from the majority Muslim state. Since the war, the region has maintained semi-autonomy. The road signs that directed us toward the Srebrenica memorial site—which commemorate a Bosnian Serb massacre of Bosnian Muslims—were written in Cyrillic letters, the Serb way of writing their common language.

TO GET FROM Sarajevo to the Srebrenica Genocide Memorial, you follow those road signs along the M-19 east until you pass through Nova Kasaba, the town where the American journalist David Rodhe first found mass graves from the massacre at Srebrenica, when he snuck into Bosnian Serb-controlled territory in the fall of 1995. In Nova Kasaba, you turn right onto a smaller highway, R-454, which rolls somewhat more tamely through suburban sprawl, much of it aching poor and still bearing the scars of a war that ended more than 20 years ago. Out your right window in the town of

Bratunac, an old warehouse also bears those scars: even from the road you can see bullet holes in the corrugated aluminum siding from July 13, 1995, when Bosnian Serb soldiers volleyed hand grenades and Kalashnikov fire into more than 1,000 Muslim men and boys huddled inside. After Bratunac, another right turn puts you on the road to Srebrenica.

As Ivan and I drove past the now-abandoned UN base, the Srebrenica Genocide Memorial itself rose up on our right like an eerie specter. Srebrenica is one of those places—like Oswiecim, the Polish hometown of Auschwitz-Birkenau, where I have also spent some time—where the presence of history overwhelms any experience of the present. The orderly rows of gleaming white stones that mark the resting places of the dead were a jarring sight compared to the muted, post-socialist, post-war gray scale that enveloped the cities, towns, and homes nearby. The contrast to the dilapidated, unrepaired warehouse in Kravica that was the site of so many of these men’s deaths was particularly striking. More than six thousand graceful, slim, obelisk-shaped burial stones, most bearing Arabic inscriptions, sprawl across a gentle hillside. In the center, an enormous marble slab forms a semi-circular wall of names around a *musala*, a covered space for prayer. The whole effect is far more Arlington National Cemetery than it is Auschwitz—perhaps unsurprising, since President Clinton’s foundation had more than a passing influence on the memorial’s construction. International guilt is as palpable in Srebrenica as national grief.

But there is grief too, and it simmered far closer to the surface than the bodies that lay under my feet as I walked between the rows of stones. The staggering number of names inscribed in the central marble slab wall were in alphabetical order, and it was impossible not to notice that many surnames are repeated five, ten, fifteen times. Fathers, sons, grandfathers, uncles and cousins: the male half of entire extended families were among those killed. Behind me, a group of women in long skirts, with scarves covering their hair, took refuge from a driving rain under the awning of the *musala*. The murmured words of their prayers drifted towards me as I stood in front of the names, soaked to the skin, trying to grasp the loss, love, hatred, and guilt that Srebrenica encompasses all at once.

Every July, on the anniversary of the massacre, tens of thousands of mourners—families of Srebrenica’s dead, politicians, and human rights workers—gather at the memorial for a service and mass burial. As the mournful sound of Muslim prayer echoes over the countryside, the crowd passes green-shrouded coffins from hand to hand. The coffins hold bodies found and identified over the previous year. Although they are full sized, the caskets are far too light to hold a human corpse. And many of them don’t. Because the Bosnian Serb Army periodically dug up and moved mass graves in an effort to hide the crimes that created them, bodies were often broken up, and reburied in several different graves. It is up to investigators to piece these individuals back together.

THE DAY AFTER my visit to Srebrenica, I stood in with Dragana Vučetić, Senior Forensic Anthropologist at the International Committee for Missing Persons, in an enormous storeroom of the Podrinje Identification Project, in the central Bosnian city of Tuzla, which is devoted to cleaning, identifying, and storing human remains uncovered from Srebrenica’s mass graves. “How do you end this?” I asked her. “What will happen when you’re done?” Metal shelving units towered above us almost to the ceiling, stacked seven shelves high. On them, metal trays held bags of varying shapes,

sizes, and colors: mostly white plastic, others green or black. There were 1100 body bags, Vučetić said. Each held a set of unlucky bones: either skeletons that were so incomplete that their family members elected to wait before reburial, or ones whose DNA didn't match any of the thousands of blood samples submitted by family members of Srebrenica's missing. Perhaps their families moved abroad, or moved on; perhaps they had no living relatives. The day I was there was blessedly cool, and only if you concentrated could you catch a faint undercurrent of something musty and organic in the air. "It's mostly just bones in there now," Vučetić told me, referring to the nearly-odorless contents of the bags.

With the soft tissue off the bones has gone a sense of immediate crisis, replaced with the grind of long-term commitment. Although exhumations continue every summer, the number of bodies found in each new exhumation season has dwindled, and with it the number of new identifications has dropped. But even as the new finds slow to a trickle, Vučetić told me she didn't know when the project of looking for the missing would end, or if it ever would. She walked me out of the storeroom and across the hall into the examination room, a sunny, large windowed room full of papers, computers, books, and, of course, bones. Partial skeletons lay on two metal tables in the middle of the room, arranged in person shapes with big pieces missing like feet, lower legs, and heads. The skeletons were weathered into mottled shades of tan. Some of the bones were missing a good sized chunk—an inch and a half long sliver halfway through the bone—where someone neatly cut away a sample for DNA testing and exposed the bone's creamy white insides.

Louise Arbour, a Montreal-born lawyer who served as Chief Prosecutor of the ICTY between 1996 and 1999, once lamented, "victims are not abstractions, although they are often perceived as such when their numbers accumulate by the thousands." As I stood in front of the skeletons in Vučetić's office in Tuzla, looking at the bones laid out in front of me on the table, the people they had been were anything but abstract. If there is any chance at all of rescuing one of the body bags in the storeroom across the hall from anonymous abstraction, I thought, how can you not try? Like Vučetić, I didn't—and still don't—know where or how this ends.

What follows, though, is a history of where and how it started.

INTRODUCTION

Human Remains and Human Rights



IN THE CENTER of Paris, there is a relatively nondescript square near the wildly modern blue and red pipes and permanent scaffolding of the Centre Pompidou. On a warm summer's day, several dozen tourists sit on the wall that rings the square, smoking cigarettes, eating overstuffed bagelwiches from the decidedly un-French bagel shop nearby, as their children chase flocks of pigeons. In the center of the square, a monumental fountain looms, huge, old, and probably unexamined by many of the gathered tourists. Atop stone steps continually washed clean by gently flowing water, there stands an

intricately carved, four-sided loggia built in an imposing Renaissance style. Erected in the mid-sixteenth century, this monument once served as both a source of fresh water and as a raised platform from which nobles could welcome the king.¹

Today, there is nothing about this square or its monumental central fountain to indicate the true historical significance of the space it marks. This, the Fountain of the Innocents, once backed up against the wall of the Cimetière des Innocents, the Cemetery of the Innocents, a place that for five centuries served as the primary burial place for all of Paris' dead; a place so overflowing with bodies that in the mid-eighteenth century doctors and investigators were sent to examine whether "the earth in the Cemetery of the Innocents was no longer capable of decomposing the cadavers interred there."² This was no idle concern. So many bodies were buried in the cemetery grounds that human fat permeated the soil, sealing out the oxygen necessary for decomposition.³

From the Middle Ages to the late eighteenth century, the Cemetery of the Innocents took in the dead from as many as eighteen Catholic parishes in Paris, as well as from the city morgue, and two of the city's hospitals. In 1186, tall walls were erected around the cemetery that hid—and held in—its contents.⁴ By the mid-eighteenth century, it is estimated that the cemetery saw fifteen hundred to three thousand annual internments,⁵ the remains of some two million plague victims, as well as infants and mothers who died in childbirth, the elderly, and those dead of any number of natural or unnatural causes.⁶

The city's residents complained about the smell and feared the spread of disease, but these concerns went largely unanswered for most of the eighteenth century.⁷ It was only after one of the walls cracked in February 1780, spilling dirt, bones, and bodies in various states of decomposition onto the street below, that King Louis XVI was forced to take action. The King ordered that burials be stopped immediately and the cemetery to be excavated, the remains taken elsewhere. Some of the bodies were transported to cemeteries outside the city; most of the bones, however, were loaded into carts and pulled into the city's underground catacombs, miles of tunnels and quarries that still honeycomb the earth under the Parisian streets.⁸ There, they were stacked into neat piles. Long bones were laid next to and on top of each other to form perfectly squared-off walls and towers, often decorated by skulls that seem to stare at visitors through dark, open eye sockets. These skeleton-filled catacombs are now one of Paris's most visited tourist attractions, bringing visitors literally face to face with the city's past.⁹

It took three years and untold physical manpower to exhume the Cemetery of the Innocents and to place all of the bones in their new, more artful resting place; one that was both more

¹ Etlin, Chapter 3: "Early Indictments: The Cemetery of the Innocents (1744-1789)," in "Cemetery and the City," esp. 78-79.

² Etlin, "Cemetery and the City," 79

³ "Human Fat Candles and Soap," *Scientific American*, October 30, 1852. This *Scientific American* report goes on to say that so much human fat was retrieved from the cemetery grounds upon its exhumation in 1785-87 that Paris's candle and soap makers received tons of raw material from which to produce their wares.

⁴ Jones, *Paris*, 49; Etlin, "Cemetery and the City," 73-77.

⁵ As cited in Etlin, "Cemetery and the City," 73; and Héricart-Ferrand, "Description des catacombes," 127.

⁶ Jones, *Paris*, 254.

⁷ Héricart-Ferrand, "Description des catacombes," 127.

⁸ See Thouret, "Rapport"; Jones, *Paris*, 209.

⁹ Møller-Christensen and Jopling, "Examination," 187-188.

concealed from the city's landscape and more on display for its visitors.¹⁰ The fascination with and respect for the bodies of the dead that this operation implied was hardly an invention of eighteenth-century Paris,¹¹ but, a century and a half later, a German forensic scientist—in the middle of directing an exhumation during World War II—would call the three-year effort in Paris to move the human remains from the Cemetery of the Innocents to the city's catacombs as the largest forensic effort ever attempted.¹²

ALTHOUGH THE ESTIMATED two million sets of remains in the Cemetery of the Innocents may still constitute the largest grave ever exhumed,¹³ there is a considerable difference between the simple grave digging of the hired workers in Louis XVI's 1786 Paris—a relatively unskilled job that required only the stamina for shoveling dirt and the visual acuity to sort bones by size and shape—and the scientific operation that the term “exhumation” brings to mind today. This image has been shaped by the forensic efforts of the last thirty years, which have seen the science advance technologically, take a place in pop culture, and move—with the development of an international regime of human rights investigations and prosecutions—from the search for a murderer in domestic courts to the search for a war criminal or *génocidaire* in international human rights investigations and international tribunals.

But the roots of a more general form of forensic science—the scientific study of human remains for fact-finding and crime-solving purposes—are older even than Paris's catacombs. Forensic threads appear in ancient texts. A thirteenth-century handbook for Chinese physicians titled *His Yuan Lu* gave detailed information on how to distinguish whether a murder weapon was blunt or sharp-edged based on the wounds left on the dead body, and emphasized that investigators should not only examine the body, but that they should also comb the crime scene for other pieces of evidence. This handbook also posited a distinction that would become central to the work of forensic scientists in later centuries: the distinction between the cause of death (the physical reason for the death, such as asphyxiation, loss of blood, blunt force trauma, heart attack, etc.) and the manner of death (the way in which the person died: from homicide, suicide, natural causes, or as the result of an accident.)¹⁴

In the Middle Ages in the German lands, the legal system of the Holy Roman Empire under the Emperor Charles V required judges to call upon the expert opinions of physicians “in cases of murder, wounding, poisoning, hanging, drowning, infanticide, abortions, and other cases involving injury to the person.”¹⁵ In the mid-seventeenth century, two German doctors began holding lectures at the University of Leipzig on violent death, addressing topics such as how to identify what they called “simulated natural death,” or murder that was made to look like an unsuspecting accident or illness. Around the same time, books on investigating and identifying natural versus unnatural death

¹⁰ Héricart-Ferrand, “Description des catacombes,” 128.

¹¹ For a recent and wide-ranging discussion of the effects of the dead on the living, see Laqueur, *Work of the Dead*.

¹² *Amtliches Material zum Massenmord von Winniza*, 83–86, 117.

¹³ Jones, *Paris*, 254.

¹⁴ Stover, *Guatemala*, 15.

¹⁵ Oliver, “Legal Medicine,” 405; Wecht, “Legal Medicine,” 876.

began to appear in France, Germany, and Austria. By 1720, Chairs of Legal Medicine were created at German universities, predating similar positions in other countries by nearly a century.¹⁶

In much of continental Europe, the nineteenth century saw an increased scientific knowledge about the body after death, and the permanent incorporation of forensic experts into the legal system.¹⁷ In 1856, Johann Ludwig Caspar published a two volume *Handbook of the Practice of Forensic Medicine: from personal experience*, which described, among other insights, how to differentiate rigor mortis from stiffness from freezing, the effects of obesity on body temperature after death, and what happens when a body sustains heavy blows to the back of the head three days after death—insights made possible by Caspar’s creativity in experimenting on the bodies of the dead.¹⁸ A groundbreaking infanticide case in Germany in 1861 both showcased the advances made in the field of forensic science and brought that science to center stage in the courtroom. A doctor placed an infant’s lungs in water, and if they sank, the theory went, the child was stillborn and had never taken a breath; conversely if they floated, the child had breathed, and therefore died sometime after birth. The lungs sank, and the young mother was cleared of the charge of infanticide.¹⁹

Early in the twentieth century, the German medical community recognized forensic science as its own discipline, and forensic doctors split off from the German Society for Pathological Anatomy and Physiology and formed the German Society for Forensic Medicine.²⁰ Over the next three decades, increasing recognition of the usefulness of forensic science in legal, social, and political arenas led to increased opportunities for experimentation, and in turn, to an increase in the knowledge and applicability of the discipline. By the 1930s and 1940s in Germany, as elsewhere in Europe and the United States, forensic evidence and forensic experts were common features of criminal investigations around the world.²¹

There were also relatively recent examples of opening mass graves, although less for investigative purposes than with the goal of locating and repatriating remains. Europe was left

¹⁶ Wecht, 877; Oliver, “Legal Medicine,” 406; Wecht, “Legal Medicine,” 877.

¹⁷ In contrast, in the same period in Britain and in much of the United States, however, the local coroner handled these kinds of death investigations. In Britain, the coroner—who represented the interests of the king—was responsible, first and foremost, for assessing a death tax upon a subject’s passing; because of this, the coroner was often the first person on the scene. Although they did not have any medical or scientific training, coroners eventually also took on investigations of suspicious deaths. In the United States, coroners were—and continue to be—elected to their positions. As in Britain, they needed no medical or forensic training; rather, they must have the popularity to win a local election. Coroners could—and can—request autopsies but may not have known the signs of violent death well enough to know they should bring in a professional. In the early years of the twentieth century, some states in the U.S. began to switch from coroners to medical examiners, doctors trained in forensic science and forensic pathology who were appointed to the post based on their expertise. Like their counterparts in continental Europe, these medical examiners were tasked with conducting investigations into suspicious deaths independently from both the police and the government. For a simple explanation of the history, duties, and comparative advantages and disadvantages of coroners and medical examiners in the United States, see “Comparing Medical Examiner and Coroner Systems,” 23-28; “Medical Examiner and Coroner Systems: Current and Future Needs,” 241-268.

¹⁸ Caspar, *Handbook*, 26, 30, 34.

¹⁹ Wecht, “Legal Medicine,” 877. Oddly enough, this long-discredited lung-float test for infanticide rose to prominence during the writing of this manuscript, featuring in the 2015 trial of Purvi Patel, a 33 year-old Indiana woman accused of inducing her own abortion and then allowing the live-born child to die. Patel was found guilty and sentenced to 46 years in prison. For an overview of the case that discusses the “scientific” basis for Patel’s conviction and the history of the lung float test, see Emily Bazelon, “Purvi Patel Could Be Just the Beginning,” *New York Times Magazine*, April 1, 2015.

²⁰ Lignitz, “History of Forensic Medicine,” 117.

²¹ Krowland, “History,” 99.

dotted with graves in the wake of World War I, and after the fighting stopped, many of the involved countries began looking for fallen soldiers in their territories.²² In the United States, the Army Graves Registration Service was established in 1917, seven months after the US entered the war. GRS members worked along the front lines from October 1917 until July 1919, a year after its end, digging up “battlefield cleanup” graves where soldiers had been hastily buried.²³ Soldiers whose remains could be identified—the US Army had begun issuing dog tags to its soldiers in 1913—were reburied in graves with stones identifying them by name; bodies that could not be identified were buried in either individual or common graves marked “unknown.”²⁴

I. THE SKELETON: ARGUMENT AND STRUCTURE

THIS DISSERTATION BEGINS its history in the midst of the Second World War, in the unlikely context of Nazi Germany, where the two strains of forensic science described above—first, the use of forensic fact-finding to solve common crimes such as murder, rape, and infanticide; and second, efforts to locate, exhume, and identify bodies from large graves—merged with the first inklings of an international project of investigation and prosecution of large scale crimes. In 1943, the Nazi government summoned some of Europe’s most respected forensic scientists to a grave in an area in the western Soviet Union known as the Katyn Forest, where they exhumed the bodies of some five thousand Polish officers. The officers were victims of the Soviet NKVD, executed under an order signed by Stalin. This forensic experiment and its aftermath—a series of legal battles over who killed the officers, the Germans or the Soviets—provided a first glimpse of both the value that could be added to a case by forensic evidence, and the complications posed by the introduction of human bodies into legal and historical reconstructions of past events. These challenges ranged from the practical—concerns such as securing the manpower, expertise, and the resources to conduct the exhumation in a manner that uncovers and preserves evidence—to the intangible such as the perceived trustworthiness of the evidence and of the scientists tasked with uncovering it. The Katyn investigation, both the forensic scientists’ work during the exhumation itself, and its legal afterlife, provides the starting point for this dissertation.

From there, the history moves to gravesites around the world—to Argentina, Brazil, Guatemala, and Iraq—where forensic scientists joined burgeoning grassroots, national, and international movements that advanced ideas about human rights and sought to expose acts of violence that took place during recent conflicts. Then, in the 1990s, the re-emergence of Holocaust memory combined with western guilt over genocides in Rwanda and the former Yugoslavia—as “never again” became “once again”—helped to push the international community turned back to international criminal tribunals for the first time since Nuremberg,²⁵ this time integrating forensic

²² The Graves Registration Service still exists under the name Mortuary Affairs. See Mosse, *Fallen Soldiers*.

²³ See Hirrel, “Beginnings.”

²⁴ See McCormick, “Inventing.”

²⁵ On the role the Holocaust played in the late-20th century rise of human rights—not in occasioning that rise, but in legitimizing it—see Cohen, “The Holocaust.” For a good overview of the connection between the rise of Holocaust memory in the 1990s—assisted by such things as opening of the United States Holocaust Memorial Museum in

scientists into the process of evidence collection and investigation. In telling the hihi of how, why, and when forensic science was integrated into the twin projects of human rights in the 1980s and 1990s—serving the needs of families and affected communities and bringing perpetrators to justice on the international stage—this dissertation posits that the late twentieth century saw the increasingly international and scientific character of investigations into war crimes and acts of mass atrocity as groups invested in the documentation, investigation, and prosecution of those crimes recognized the value forensic facts could add to their reconstruction of those events. The story is hardly one of relentless forward progress, however; even as it shows the increased integration of forensic methods into human rights investigations, the story also highlights the challenges and tensions faced by forensic scientists, investigators, and families and survivor communities as they negotiated ownership, use, and reasons for exhuming the bodies of conflict and violence.

This dissertation uses case studies to tell the history of how forensic investigation into mass atrocities perpetrated by state or state-like actors—events referred to in the common parlance of the news media, the international public, and the forensic scientists themselves variously as human rights violations, war crimes, or atrocities—developed and spread around the world in the second half of the twentieth century. The dissertation is itself structured like an experiment, with three sections titled **Beginnings**, **Case Studies**, and **Breakthrough**. The metaphor of an experiment is fitting for the story at hand: that of a multi-decade, global test, in various and increasingly complex situations, of whether and how forensic evidence can add value to investigations of large crimes and atrocity. Such a structure is not, however, intended to imply an uncomplicated march toward progress. To the contrary, this history is one of trial, error, and discovery, as is the case with many science experiments. The graves in the Katyn Forest should not be understood as an intentional starting point, any more than the former Yugoslavia should be understood to provide a conclusive answer about forensic science’s role in international criminal investigations and prosecutions. Yet in this dissertation they are understood to be the bookends of a half-century in which forensic investigations were done the aftermath of various atrocities around the world.

AT FIRST GLANCE, the Nazi-led exhumation at Katyn provides an odd starting point, both chronologically and ideologically. Forensic medicine had been in use for centuries in one form or another, as was briefly discussed above, and by the early 1940s, there were established forensic doctors who regularly testified in court. One of them, a Hungarian physician named Ferenc Orsos, had done some exhumations in the Soviet Union in the 1930s; another—a Spanish doctor who arrived in Berlin but who, for political reasons, never made it to Katyn—had participated in exhumations in Spain from that country’s Civil War. Neither the science nor the individual scientists at Katyn were novel, although the scale of the grave was. More importantly, though, the concept was new. Anthropologist Ian Hanson writes, Katyn was the “first investigation of war crimes by pathologist led teams [...Katyn] introduced the use of international scientific teams to war crimes

Washington; the popularity of films like *Schindler’s List*; and the publication of Daniel Jonah Goldhagen’s book *Hitler’s Willing Executioners: Ordinary Germans and the Holocaust* (New York: Knopf, 1996)—see Steinweis. “The Auschwitz Analogy.” For more general discussion of a resurgent American interest in the Holocaust in the 1990s, see, e.g., Flanzbaum, ed., *Americanization of the Holocaust*; Novick, *Holocaust in American Life*; Shandler, *While America Watches*.

investigations.”²⁶ The forensic doctors who convened in the Katyn Forest also seemed to see the exhumation as something new; one of them—an American-born, Austrian-educated Croat physician named Edward Miloslavich—was so excited to be part of what he saw as a groundbreaking scientific event that he petitioned the German authorities to let him take part in the exhumation and then paid his own way to join the forensic team. What made Katyn unique—from the perspective of the doctors and in forensic history—was not the physical or scientific act of the exhumation itself, but the packaging of the exhumation: that it was done with the intention of using the bodies to gain public attention for the crime and to indict perpetrators.

After Katyn, international, scientific investigations into large-scale killings did not reemerge for another four decades. When they did, they arrived in—and arose in part because of—the entirely different geopolitical landscape of the mid-1980s, a vastly more internationally connected world in which both scientific collaboration and human rights work regularly crossed borders.²⁷ The thawing of the Cold War—and, in particular for this history, the fall of repressive and violent right wing governments across Latin America—allowed for grassroots calls for transitional justice, efforts to end ongoing state-sponsored acts of mass violence and to investigate ones that had already occurred.²⁸ In this environment, the idea of exhuming mass graves as part of these investigations was revived. In this changed political climate in Argentina—as well as that in other countries in Latin America and abroad—allowed for organizations, both governmental and non, to ask the American scientific community for help in finding bodies, something they did not trust their own forensic scientists to do. That group of American scientists, along with young Argentine experts who had trained on the job—at the time some of the only scientists in the world who did this kind of work²⁹—were then invited into Guatemala, Chile, and Iraq to do the same for those countries. In each of these cases, the rationale for using forensic science and international scientists recalls the one observed forty years earlier at Katyn: international scientists brought with them both the perceived transparency of science and the objectivity of uninvolved third parties, an objectivity and outsider status made especially important by the project of exposing secrets that many in those countries’ governments would rather keep under wraps.

The final section of the dissertation picks up in the early 1990s, concurrent with the end of the Cold War—and the corollary victory of western ideals of justice and rights—when the world saw two genocides and the establishment of the first international war crimes tribunals since the

²⁶ Hanson, “Forensic Archaeology.” Hanson is not the only one to mention this. In textbooks of forensic anthropology, and in book and dissertations on the topic, there are gestures toward Katyn as the precedent for all that came later in international forensic work. See, e.g. Haglund, Connor, and Scott, “Archaeologists as Forensic Investigators,” 58; Tyers, “Hidden Atrocities.”

²⁷ For one take on the globalization of rights consciousness, thought, and activism in this period, from 1968 to the end of the Cold War, see Ishay, *History of Human Rights*, 245-255; see also an older but thoughtful and comprehensive discussion of globalization and the development of international human rights law, McCorquodale and Fairbrother, “Globalization and Human Rights,” 735-66. For 1970s’ impact on the increased global nature of science and scientific exchange, two helpful essays are: Manela, “Smallpox Eradication and the Rise of Global Governance,” and McNeill, “Environment, Environmentalism, and International Society.”

²⁸ Jan Eckel writes, in South America, “human rights activism clearly responded to the advent of institutionalized military dictatorships and the shock waves that their brutal methods of repression sent through the continent.” Eckel, “Explaining the Human Rights Revolution of the 1970s,” 233.

²⁹ See Snow, “Forensic Anthropology”; also cited in Stover, “Unquiet Graves,” 8.

Nuremberg Tribunal that prosecuted Nazi war criminals. Yet the incorporation of forensic investigations at these tribunals—particularly the United Nations-founded International Criminal Tribunal for the former Yugoslavia and for Rwanda (ICTY and ICTR)—had less to do with Holocaust memory or guilt than it did with the practical reality of international criminal prosecutions. The lawyers and investigators at these new courts needed evidence on which to convict the accused for war crimes that had never before been prosecuted on an international stage before: crimes against humanity and genocide, in addition to war crimes, which had made an appearance in courts in the nineteenth century and at Nuremberg. For the lawyers and investigators at these courts, there was both professional and moral imperative to successfully prosecute the defendants in the dock. The enthusiasm for forensic investigation in the international criminal tribunals of the 1990s derived, at least in part, from a belief that forensic evidence from Bosnia’s many thousands of graves could be used to corroborate and strengthen the evidentiary foundations of these cases to meet as yet unknown standards of proof.³⁰

IN TELLING THE history of how, why, and when forensic science was integrated into the twin projects of human rights work—bringing perpetrators to justice and serving the needs of survivor communities and families³¹—this dissertation posits that the late twentieth century saw an increasingly scientific and international character of investigations into violations of international human rights and humanitarian law by state or state actors. Governments, lawyers, and survivor groups began to recognize the value forensic facts and the participation of forensic experts could add to their reconstruction of the crime for historical or legal purposes. As they did so, they allowed for and encouraged the creation of an international forensic community that, though its expertise, had a monopoly on a certain kind of facts about conflict and atrocity—a monopoly that gave it power not only over how crimes were to be investigated, but also how they would be prosecuted, memorialized, and remembered by history. As the bodies became the story, so too did those who exhumed them.

II. THE GRAVE: RELATED LITERATURE

A. Human Rights

³⁰ International criminal prosecutor, in discussion with the author, July 2014. This functional nature of forensic evidence, for strengthening criminal cases against perpetrators of grievous international crimes, is discussed in Delpa, Bougarel, and Fournel, *Investigating Srebrenica*, 38; also noted in Stover and Peress, *The Graves*, 138.

³¹ There is a growing tension visible in recent investigations and prosecutions conducted by international criminal tribunals between the “humanitarian needs of families of the missing and the evidentiary needs and limitations of international war crimes tribunals,” as Eric Stover and Rachel Shigekane write, in the aftermath of mass killings. On one side are families who wish to know the fate of their missing relatives and, if they have died, to receive their remains. [...] On the other side are international war crimes tribunals, which are charged with investigating large-scale killings but may lack the resources or political will to undertake forensic investigations aimed at identifying all of the dead.” (Stover and Shigekane. “The missing,” 846.

THIS HISTORY EITHER has everything to do with the historiographical field of human rights,³² or nothing at all to do with it. On the one hand, the argument could be made that it makes more sense to talk about the events described in this dissertation as investigations into war crimes, atrocities, or genocide—as crimes committed by state or state-like actors against their own people or people under their protection—rather than as investigations into human rights violations.³³ As these investigations are discussed in this dissertation, they are less about humanity and more about wrongful deaths; less about the rights people should have and more about crimes states or other perpetrators should not have committed. The history as it is told here also intentionally separates the individual forensic scientists and investigators—who were driven by a genuine desire to use their

³² The historiographical literature on human rights is large, and has grown rapidly over the past decade. One of the major questions of the field has, on its face, to do with the chronology of their emergence, a seemingly unimportant question beneath which far more profound questions lie. ‘When are their origins?’ shades quickly to ‘what are their origins?’ and then to ‘what are they?’ For excellent overviews of the field and of these questions, see Cmiel, “Recent History of Human Rights”; Hoffmann, “Genealogies of Human Rights”; and Moyn, “Substance, Scale, and Salience.” Human rights emerged as a topic of inquiry in the 1990s among legal scholars, many of whom looked to the 1940s as the pivotal moment in their history, where the historical development of rights talk—from the Magna Carta through the American Declaration of Independence and the French Rights of Man and the Citizen—merged with the international community’s horror over the Nazi genocide of Europe’s Jews, ultimately inspiring the legal codification of the notion of innate human rights into the Universal Declaration of Human Rights (UDHR) in 1948 (see, e.g. Henkin, *Age of Rights*; also Henkin, et al, *Human Rights*). Lynn Hunt’s 2007 contribution, *Inventing Human Rights: A History*, also takes a long view, construing human rights as the culmination of an Enlightenment project that moved humanity toward empathy, and from empathy to the belief that all humans have innate rights. (For another long view, see also Ishay, *History of Human Rights*.) Other scholarship has ducked this long view while still placing the focus on the 1940s in Europe as the critical moment of origin, tying the codification of rights in the UDHR to the Roosevelt-era progressive agenda; a so-called “New Deal for the world.” (See Borgwardt, *New Deal*; Glendon, *World Made New*.) In very recent years, contributors to the field have challenged the idea that the origins of human rights as they are today understood can and should be found in the 1940s and in the UDHR, or in the deeper history of the Enlightenment, arguing that the deep history of rights talk, empathy, and humanitarianism were not the precursors to human rights and that the notion of human rights in the immediate post-war period was hardly the rise of a new, and better, world order. Rather, human rights were a sorry replacement for comprehensive and effective international protections for minorities; a compromise that privileged concerns about national sovereignty over the ability of the international community to protect or police the rights of minorities within those national borders. Moyn posits that human rights as we understand them today, in their universalized, legally-codified form, were a product of a more general “ideological recovery” of American liberalism in the 1970s. Stefan-Ludwig Hoffmann pushes the origin point even later, to the 1980s and 1990s. Hoffmann argues that the universal notion of human rights is a product of decolonization and of the post-Cold War triumph of western values. The *longue durée* history of human rights that connects them to the Holocaust and provides both their historical and moral underpinning, Hoffmann argues, was equally a product of the post-Cold War moment, a retrofitted history that distorts past events in order to give the modern concept of human rights a sense of weight and inevitability (Hoffmann, “Genealogies of Human Rights”).

³³ It is worthwhile to make a distinction in terms between the historical and social science usage of “human rights” and the legally codified usage in international human rights law. As opposed to international humanitarian law, which pertains only to crimes committed against civilians in armed conflict situations, international human rights law protects individuals in times of war and peace alike. Therefore some of the crimes discussed in this dissertation are violations of international humanitarian law—such as Katyn, or Srebrenica, where the perpetrators were uniformed soldiers with insignia—while others are violations of international human rights law, performed outside of the context of an official conflict and by individuals who were not members of an official military or armed group. However, in the social science and historical context, the term “human rights” is more expansive than the strict legal definition, serving as a stand-in for violations of a set of moral values or of human dignity, whether or not they meet the specific legal definitions. It is in this broader social or moral sense, rather than the narrow legal one, that the term “human rights violation” is meant throughout this dissertation.

medical skills in ethical ways, to assist a cause they felt was just—from the overarching, structural problems that faced and still face the global project of human rights, of which there are many.³⁴

In separating the individual from the general, this dissertation skirts some of the central questions of interest in the historical literature on human rights produced over the past decade, some of which has been characterized by a collapsing of precisely this distinction between the global project of human rights and the motivations and actions of its practitioners. This collapsing allows either for the writing of hagiography—histories that paint human rights “heroes” as “fledgling, but hopefully universal, community of believers struggling for good in a vale of tears”³⁵—or for a critique of human rights practitioners that suggests those individuals are both cognizant of and participant in the global regime of human rights work, and which holds them accountable for its sins.

Refocusing on the practitioners, scientists, and individual actors themselves—on their writings, words, and self-conceptions—allows for a third view of human rights practitioners: as neither saints nor villains, but as people, with complex and disparate motivations and self-understandings of the ‘why,’ ‘how,’ and ‘what for’ of their work. Many of the scientists and investigators in this dissertation, especially in the early years in Latin America, explicitly did not see their work as connected to a global project of human rights; rather, they were responding to a judge’s orders for exhumation, as they would in a domestic system in the United States. For some scientists, the exhumations were as much about law and order as they were about human rights. For others, the forensic work had little to do with the universality of human rights, and everything to do with the particularity of the national setting, the grassroots groups, and the survivor communities.

On the other hand, this story has much to do with human rights. The historical subjects of this dissertation do conceive of themselves as engaged in a project of human rights. Yet their use of the term often functions as an adjective, a descriptor of “investigation,” or “work,” or “activist.” As they use it, a “human rights investigation” is a sub-category of forensic investigations; investigations with greater meaning than the individual murder cases these scientists regularly worked on, perhaps because of the scale of the crimes or the pain experienced by the families or surviving communities. But this understanding was retrofitted, grafted on to a scientific endeavor that was underway on the scale of the national long before it was on the international. Eric Stover, a human rights activist and scholar who played a central role in the original test cases and subsequent spread of forensic science in human rights investigations, explained, “At the beginning, we had no conception that we were participating in a global project with social implications.” It was only in retrospect, he continued, in realizing they had made mistakes in the field, that he was driven to read about trauma, witnessing, and rights, and to retroactively understand their forensic work in those contexts.

The history told in this dissertation resists the view, advanced by some scholars engaged in the historiography of human rights, that “human rights” can be understood as an all-encompassing

³⁴ The act of turning the focus away from the overarching global project of human rights does not amount to a rejection of the notion that it has had problems worthy of historical inquiry. It does, and there is much historical inquiry on them that is worthy of attention. For example, on the narrowness of “human rights” and who is left out, see Black, “Are Women ‘Human,’” and Shannon, “Right to Bodily Integrity”; on human rights as a proxy for the quasi-imperialism of western values, see Moyn, *Last Utopia*, and Hoffmann, “Genealogies of Human Rights.”

³⁵ Moyn, *Last Utopia*, 6.

worldview for its practitioners, one that practitioners of human rights have necessarily bought into and adopted as their way of viewing the world.³⁶ Yet it asks if the forensic scientists that act as the historical subjects of this dissertation were not-critical-enough positivists, overly confident in the value of their scientific evidence and expertise. It asks if they were overly certain that exhuming the bodies of conflict is always necessary or desirable. And it asks if they believe too vehemently that forensic science offered answers to questions that humanity—on the local or on the global—was better off having answered, even if they hadn't asked. In the history that follows, this dissertation seeks answers to all of these questions.

B. Social Science and Forensic Science

THE NUMBER OF scholarly works in the humanities on the intersection of forensic science and large-scale state crimes or human rights violations is quite small. Most of the scholarly work on the subject has been written by anthropologists who address country specific situations, and ask very targeted, bounded questions about the meaning of the exhumed dead in their unique political, cultural, and temporal context. In this model, anthropologist Paul Sant Cassia addresses the relationship between the material culture a person leaves behind—mementos, photographs, letters, etc.—and the physical human remains of that person after exhumation, arguing that the material things of the dead that exist prior to exhumation are significant in shaping how the rematerialized human remains will be received and experienced.³⁷ In a similarly context-specific work, anthropologist Leyla Renshaw also writes about memory and bodies in her work on the contested representations of the people murdered during the Spanish Civil War of the 1930s. Her work focuses on two small rural communities as they undergo the experience of exhumation, identification, and reburial from nearby mass graves. In examining the role excavated objects and human remains have had in breaking Spain's pact of silence surrounding the memory of the War—which pitted Spanish communities and families against each other and, after the war, was largely and intentionally forgotten—Renshaw argues that the exposure of the graves has opened up a discursive space in Spanish society for multiple representations of the war dead and of Spain's traumatic past.³⁸

Taking a slightly wider scope, anthropologist Richard Wilson writes about the inability of forensic evidence to reveal the “experiential dimensions of violence,” that is, its emotional toll in addition to its physical one on survivors and communities that experienced that violence. Much like critiques of the Auschwitz Trial that argue the sum of individual acts of violence do not and cannot amount to the whole truth of that camp's horror, Wilson points out that a focus on forensic investigation and scientific facts can distract from the experiential truth of systemic violence. This, he argues, happened in post-Apartheid South Africa. “Human Rights methods of investigation,” such as mass grave exhumations, “if not accompanied by more historical forms of documentation and analysis, can be a poor avenue for accessing experiential dimensions of violence” and can even

³⁶ The historiography of human rights and the critique it applies is discussed in detail in the section that follows.

³⁷ Cassia, *Bodies of Evidence*.

³⁸ Renshaw, *Exhuming Loss*.

be used to downplay the suffering of people who were not killed but who still experienced violence, oppression, or loss.³⁹

Anthropologist Caroline Steele's work questions the ability of forensic scientists to remain independent from the ideological or political agendas of the countries or organizations that request their assistance or allow them to work. Steele's study of mass grave exhumations in Iraq during the American occupation in the mid-2000s argues that the lack of control forensic scientists have over the ideological or political endgame of their employers, be they NGOs or governments, and that in accepting assignments anyway these scientists become pawns in a project of truth construction over which they have no control.⁴⁰

As the works of a group of largely social anthropologists, it is not surprising that their theoretical understandings of the physical remains of the dead are bounded by their temporal, geographical, political, and cultural contexts; the field itself is too new for the distance between them to have been colored in to create a comprehensive historiographical—or even scholarly—field. The writings of anthropologists, such as Victoria Sanford's book on forensic investigations of graves in Guatemala,⁴¹ on the specific graves and political situations that surround their exhumation feature in this dissertation. However, the questions that interest anthropologists are so different as to render works such as those reviewed above more useful in finding inspiration and provoking thought than they are in direct conversation.

Additionally, as is often the case with a new field of intellectual inquiry, many of these scholarly treatments are critical of exhumations and forensic investigations in ways that are arguably unproductive. There has already been a critique of their critique. Sociologist Adam Rosenblatt, the field's most recent contributor, warns that the continued work in such a critical vein may be unproductive, and even worse, may have a chilling effect on any kind of collaborative relationship between social scientists and humanities scholars and the forensic scientists who participate in exhumations into large-scale crimes or human rights violations. Repeated scholarly studies by non-scientists that challenge the validity, veracity, and efficacy of forensic investigation in theoretical or ethical terms without offering a practical solution may, Rosenblatt writes, have the effect of preventing, rather than facilitating, future scholar-practitioner exchange and conversation.⁴² This rift is already evident between practitioners and scholars of humanitarianism and humanitarian relief, and serves as a warning heeded in my own approach.⁴³ In a similar vein, in her analysis of investigations into state crimes in Argentina, anthropologist Zoe Crossland writes that academic discourse—in the humanities (the people who write about investigations) as much as the hard sciences (the people who do them)—should strive to avoid truth claims, and to concern itself more with methodological and process questions than with theoretical underpinnings to avoid

³⁹ Wilson, *The Politics of Truth and Reconciliation in South Africa*, 33-34.

⁴⁰ Steele, "Archaeology and the forensic investigation of mass graves."

⁴¹ Sanford, *Buried Secrets*

⁴² Rosenblatt, *Digging*, 64-65.

⁴³ For example, work like Liisa Malkki's on Hutu refugees and refugee camps in Tanzania, which ignores the practical realities and immediate health, sanitation, and population-management challenges faced by aid workers—such as how to provide food, water, shelter, and medical care—as they try to assist in a humanitarian crisis, and instead applies a theoretical critique about those workers' treatment of refugees' personal narratives. See Malkki, "Speechless Emissaries," 377; published in book form as Malkki, *Purity and Exile*.

overstepping the bounds of what can and cannot be known.⁴⁴ The cautions of these two latter scholars are taken seriously in the dissertation that follows.

C. Forensic Aesthetics and the “Era of the Thing”

THIS DISSERTATION ALSO offers an alternate perspective from the work with which is perhaps most obviously in dialogue, and for that reason it is worth addressing separately. In their slim volume *Mengele’s Skull: The Advent of a Forensic Aesthetics*, Thomas Keenan and Eyal Weizman write that forensic evidence came to occupy a central role in international courtrooms in the last two decades of the twentieth century, even becoming the preferred form of evidence. This turn toward forensic evidence, they argue, was the third major trend in evidentiary strategies in international trials of war criminals. The first such trend, a reliance on documents, characterized the Nuremberg Tribunal; the second, witness testimony, was the hallmark of the Eichmann trial. This, what Keenan and Weizman call the “era of the witness” seen at Eichmann gave way in the 1980s, they write, when attention turned toward the “thing.” This third era, that “of the thing,” witnessed “the birth of a *forensic* approach to understanding war crimes and crimes against humanity.” Forensic scientists replaced Auschwitz survivors in the witness stand, Keenan and Weizman argue, and in doing so they injected a sense of scientific objectivity to the proceedings that brought with it sometimes misleading claims of objectivity, scientific completeness, and finality.⁴⁵

Keenan and Weizman’s foundational claim that forensic evidence has come to displace other forms of evidence is, at best, in need of investigation. At worst it is factually inaccurate.⁴⁶ There is no evidence one can marshal to prove that there has been an abandonment of witnesses or documents in favor of bodies and bones. In many cases, even those involving war crimes or human rights violations, forensic evidence is often not as relevant to proving the substance of the charges, or, for example, the command responsibility of the high-level accused to the ground-level crime. Trends at international tribunals in the last several decades also challenge the notion that the era of the thing has dawned on international criminal justice. Even in cases where forensic evidence is critically relevant—the Srebrenica cases at the ICTY, for example, which involved the murder of 8,000

⁴⁴ Crossland, “Of Clues and Signs.”

⁴⁵ Keenan and Weizman, *Mengele’s Skull*, 12-13.

⁴⁶ Legal scholar Nancy Combs, in her 2013 book *Fact Finding Without Facts: The Uncertain Evidentiary Foundations of International Criminal Tribunals*, critiques recent war crimes tribunals for their over-reliance on witness testimony. In a detailed analysis of transcripts and judgments from the United Nations-run *ad hoc* courts for East Timor and Lebanon, as well as the International Criminal Tribunals for Rwanda and for the former Yugoslavia, Combs argues that these courts ignore the questionable nature of evidence used in their courtrooms, and fail to triangulate or corroborate evidence provided in witness testimonies. Relying so heavily on witnesses, Combs argues, is to the detriment of these courts’ fact-finding ability. Similarly, in the first decade of the International Criminal Court’s (ICC) existence, the “era of the thing” seems equally absent. As of 2012, the ICC has done no sub-surface forensic investigations. In recent years, the Court has expanded its capacity to analyze and use digital forensic techniques. Traditional forensics, though, have played no major role in prosecutions at the most current of international criminal tribunals. One would hardly expect to hear such concern about the overreliance of twenty first century courts on witness evidence, or a near-total failure to use traditional forensic investigations by the International Criminal Court, if we arrived in the “era of the thing” as Keenan and Weizman argue, in 1985.

men—the majority of the evidence came from witnesses who are not forensic experts, and from documents, photographs, audio recordings, satellite images, etc., not from the mass graves.⁴⁷ In Guatemala, the country with the largest forensic program in Latin America, forensic investigators have exhumed more than 7,000 skeletons. Yet that enormous quantity of forensic evidence has been used in only ten trials over the last twenty-five years.⁴⁸ The disagreement between Keenan and Weizman’s “era of the thing” and the history told in this dissertation is less one of timeline or basic facts—it also finds in the 1980s and 1990s an increase in the prominence and use in international criminal prosecutions in recent decades. However, unlike Keenan and Weizman’s claim that it has displaced other forms, the history told here demonstrates that it has increasingly been recognized as a fruitful source of added factual value to international criminal prosecutions, especially when used in tandem with other forms of evidence. The history told here is similar to Keenan and Weizman’s—that is of the rising prominence of forensic evidence in international criminal tribunals—but one that is more measured in its claims.

III. THE BURDEN OF HISTORIOGRAPHY⁴⁹

THIS DISSERTATION IS not, neither consciously nor by design, a work of ethnography. Although, as noted above, in the course of my research I have spent considerable time talking to and observing forensic scientists and practitioners and have taken both inspiration and input from them in the creation and conceptualization of this project, the vast majority of the historical research I undertook came from archives: physical and digitized, personal and public. Yet it is ethnographic in the sense that it uses the daily experiences of the forensic scientists engaged in large-scale investigations into state crimes around the globe to construct their sense of the general state of human rights and human rights investigations. This approach produces insights that complicate *our* understanding—that is, the historical understanding—of that general picture. In this case, my approach leads to conclusions that complicate the picture painted by many recent contributions to the historiography of human rights, which have offered critique of the global project of human rights: problematizing the origin story and overall morality of the global human rights regime while neglecting the experiences of those who operated within it.

I first came to this historical story after finding documents from the Nazi-led exhumation in the Katyn Forest. My subsequent reading of the doctors’ forensic reports from that investigation sparked an obsession of sorts with the episode’s weirdness (mass grave exhumations?), its irony (Nazis digging up, exposing, and expressing outrage over the bodies of the dead?), its moral weight (doctors working for, with, or under Nazi officials, who nevertheless insist on factual accuracy and

⁴⁷ Delpla, Bougarel, and Fournel, *Investigating Srebrenica*.

⁴⁸ Fredy Peccarelli, in conversation with the author, September 2015.

⁴⁹ This turn of phrase is borrowed from the introduction to Andy Bruno’s book, *The Nature of Soviet Power: An Arctic Environmental History*; much else in terms of intellectual and methodological is also owed to Bruno’s work, which, in its conception and explication of the methodology of ethnographic history—using the daily experiences of the particular to reconstruct the general—provided inspiration in conceptualizing the story at hand and ultimately allowed me permission to make my intellectual peace with the approach that felt both integral and organic to this dissertation.

express a duty with regards to the dead?), and finally, its historical import (a Nazi-led exhumation that in many ways resembles—perhaps presages—forensic human rights investigations done in the decades to come?). This final piece, the connection between the exhumation in the Katyn Forest and human rights investigations in the 1980s and 1990s, fell into place when I took a class at Berkeley Law that put me in contact with lawyers, forensic scientists, and human rights practitioners. They pushed me to see the Katyn Forest exhumation outside of its Nazi and Holocaust context, and instead in the broader and more present-focused context of human rights work. It was these discussions with non-historians that set this story, and me along with it, on a collision course with the historiography of human rights.

It was never my intention to use the history contained in this dissertation to set myself apart from or against this historiographical field. From its original conception, through my research, and into the early stages of writing, this project was driven entirely by the narrative, driven by my desire to piece together what I suspected was—and later began to see clearly was—the historical development of a set of scientific techniques and the unfolding of an international, human rights-driven forensic *milieu*. My only objective, at the outset, was to write a “comprehensive description,” to use Weber’s term,⁵⁰ of that process and of what I thought was a compelling historical story. I came late to the understanding that my very focus on the individual practitioners and their experience of their everyday work was in and of itself an intervention into the historiography of human rights, one that could be used to complicate the accepted picture of human rights’ global regime.

I have spent the last five years with the forensic doctors who feature in this history; they are people I have gotten to know through photographs, letters, memoirs, and their testimonies in court. As I came to know the historical players, my initial fascination and admiration turned to a deeper understanding of the complex motivations and anxieties that press in and around their every action. They are hardly saints, as they would be the first to say. Nevertheless, the position of human rights scholarship over much of the last decade—in its critique of human rights practitioners as part and parcel of the critique of the global regime within which they work—is at odds with the picture I came to see through my sources, and the picture that this dissertation presents: one of people who have spent their lives trying to leverage their scientific skills for the greater good in ethical ways. They had, of course, varying degrees of success in pulling this off; these challenges, mistakes, and failures feature prominently in the history that follows. But to dismiss them as the blind followers of faith, especially without interrogating the content and result of that faith, is to miss the self-understanding of the human rights practitioners themselves—their thought processes, motivations, and actions—and, correlatively, to miss the ways in which their understanding of the human rights regime within which they worked can, should, and must complicate the way we understand it.

⁵⁰ Eugen Weber, “History is What Historians Do,” *New York Times*, July 22, 1984.

PART I

BEGINNINGS: The Katyn Forest

Chapter 1. Katyn, 1943

Chapter 2. Katyn and Nuremberg, 1944-1952

CHAPTER 1

Katyn, 1943



THE PHONE RANG in Dr. Francois Naville’s office at the University of Geneva in Switzerland on the morning of April 22, 1943.¹ At 59 years old, Naville was a white-haired and diminutive forensic scientist whose work touched on virtually all corners of legal medicine, from infanticide to

¹ ACICR, P FN-023, “Histoire de ma mission a Smolensk.”

barbiturate overdoses to the correlation between castration and mental illness.² Naville picked up the phone.

On the other end of the phone was Dr. Steiner, a medical advisor at the German General Consulate in Geneva. The German Army, Steiner told Naville, had found a mass grave containing huge numbers of bodies, perhaps as many as ten thousand.³ The German government ironically considered them to be victims of a war crime, and planned to investigate their deaths. Because of the scale of the investigation and its political implications, the German Health Ministry wanted to involve forensic scientists from a variety of countries to give the investigation an appearance of impartiality and credibility. In the Swiss doctor's memoirs, he remembered Steiner asking, "Will you go and represent Switzerland?"⁴

Half a continent away, in a café in Zagreb, Croatia, another forensic scientist also learned about the German government's plans to exhume a large grave as part of a war crimes investigation. The American-born Dr. Edward Miloslavich, founder and head of the Institute of Forensic Medicine at the University of Zagreb, remembered later that he was sitting in a Zagreb café, reading the newspaper, when his eyes fell on a small notice. The German government, it read, planned to convene an international commission of pathologists to conduct a forensic investigation and exhumation of a large gravesite containing thousands of corpses near the Russian city of Smolensk.

According to testimony he later gave in court about this German-led exhumation, Miloslavich was born in Oakland, California, the son of Croatian immigrants to the U.S. He received a degree in forensic pathology and criminology at the University of Vienna before returning to his parents' homeland to take the helm of Zagreb's forensic institute, Croatia's first dedicated program in legal medicine. He had spent many of his formative professional years in Serbia, exhuming graves from the Balkan wars of 1912 and 1913, experience that explained his interest in this German-led exhumation, and that, he felt, qualified him to assist.⁵ Miloslavich testified that he went to the office of the German legation in Zagreb, where a German functionary listened to his interest in joining the

² ACICR, P FN-102, "Resume des publications de F Naville, professeur ordinaire de medicine legale a l'Université de Geneve."

³ The amount of ink spilled on events leading up to, the execution of, and the aftermath of the Katyn Forest massacre is enormous, and any overview of the historiography is only the tip of the iceberg. British historian Louis Fitzgibbon wrote six books on the topic in the 1970s: *Katyn*; *Katyn: A Crime Without Parallel*; *Katyn: A Triumph of Evil*; *The Katyn Cover-up*; *Unpitied and Unknown*; and *Katyn Massacre*. Just before the end of the Cold War, American historian John H. Lauck contributed another review of the available documents that details of the events leading up to Katyn and its aftermath: *Katyn Killings: In the Record*. Immediately after the fall of the Soviet Union, journalist Valdimir Abarinov published an article about Katyn in the Russian cultural and political newspaper the *Literaturnaya Gazeta*, and asked his readers to contact him with further information, which thousands did. Abarinov also used his name to gain access to the Soviet Archives and was the first scholar to review Soviet documents relating to the crime. (See Abarinov, *The Murderers of Katyn*.) In the mid-2000s, Anna M. Cienciala published the edited volume *Katyn: A Crime Without Punishment*, which compiles Russian, Polish, and German documents on the Katyn murders and exhumation, both original and in translation, effectively ended the debate over the facts of the disappearance, murder, and discovery, and offers what should be considered the definitive narrative on Katyn. Newer scholarship has turned instead toward a reflection on the impact of the crime on Polish identity and history and on Polish-Russian relations, exemplified by the newest book on Katyn, which examines the meaning of Katyn as a physical site and ideological symbol in the historical and current relations of Russia and the countries of the former Soviet bloc: Etkind, Finnin, Blacker, Fedor, Lewis, Mälksöo, and Mroz, *Remembering Katyn*.

⁴ ACICR P FN-023, "Histoire de ma mission a Smolensk."

⁵ "The Katyn Forest Massacre: hearings before the Select Committee," (Testimony of Dr. Edward Miloslavich), Vol. 3, 310-11.

commission. But, Miloslavich remembered, the German told him, “I have no instructions from Berlin that you can go.”⁶

Meanwhile, in Geneva, according to Naville’s memoir and later court testimony, the Swiss doctor was trying to get out of participating. “I have no great desire to meddle in the story, or to assist the Germans,” he told Steiner, the German medical advisor. Years later, Naville would explain to an American Congressional inquiry that he did not know if the Germans had really found a grave or not, but that he had no interest in furthering Nazi causes.⁷ But he felt empathy for the dead men in the grave. Three years later, in 1946, Naville would be called in front of the Swiss Parliament and asked to explain why he chose to participate in this Nazi-led investigation. He felt that he had to participate, he told Parliament, because forensic scientists such as himself had a particular duty “to serve the truth in conflicts where the parties sometimes serve other masters.”⁸ Still, he had to reconcile that sense of duty with his distaste for Switzerland’s eastern neighbor. “Since World War I,” he testified later, “I have hated the Germans.”⁹

Naville wrote in his memoirs that Steiner asked him to consider the request for a day. The German explained that there was not much time. The grave was already open, and the bodies—now exposed to air and sun—were rapidly decomposing. The group of non-German forensic scientists, termed the International Medical Commission was to convene in Berlin just five days later, on April 27.¹⁰

* * *

TO AN OBSERVER of human rights investigations today, both Naville’s hesitation and Miloslavich’s eagerness to participate in a forensic investigation of a mass grave are both somewhat surprising. In today’s world, exhuming mass graves is a relatively common response to mass murder or other atrocity.¹¹ But there was little that was common about the grave Miloslavich and Naville would help exhume, nor about its historical time and place. In 1943, the European continent was embroiled in the Second World War, and the Holocaust was well under way; the mass grave forensic fact-finding missions that would feature in investigations into large-scale crimes in the 1980s and 1990s were decades off. There is no small irony in the fact that members of the Nazi government proposed to conduct the first pathologist-led forensic investigation of a war crime.

Both Dr. Naville and Dr. Miloslavich had heard about the mass grave the Germans proposed to exhume. They hardly could *not* have heard. According to a Nazi media campaign that

⁶ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Dr. Edward Miloslavich), Vol. 3, 310-11

⁷ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Dr. Francois Naville), Vol. 5, 1613.

⁸ Francois Naville, letter to Swiss Parliament. Cited in Zdzisław Stahl, *The Crime of Katyn: Facts and Documents*. London: The Polish Cultural Foundation, 1965. p. 153

⁹ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Dr. Francois Naville), Vol. 5, 1613.

¹⁰ ACICR, P FN-023, “Histoire de ma mission a Smolensk.”

¹¹ In November and December 2015 alone, for example, the *New York Times* reported on mass grave investigations in Sinjar Province, on the Malaysia-Thailand border, and in South Sudan.

began a week and a half before Naville's invitation to the gravesite, the Soviet NKVD had executed upwards of ten thousand Polish officers—men taken as prisoners of war—in the spring of 1940, and buried them in mass graves in the Katyn Forest, some twelve kilometers east of the Russian city of Smolensk.¹² Members of German Army Group Center 537th Signals Regiment, which was stationed in the Smolensk area, had located the graves in recent weeks, the reports said. Although the Nazi pronouncements were clear on the question of responsibility for the crime—that the Soviets had done it—international opinion was split. To some in the Allied countries, in the United States and Britain in particular, it seemed just as likely that the Germans had killed the Polish officers, and were staging an elaborate propaganda coup, attempting to pin the murders on Moscow.¹³

The discovery of the mass graves in the Katyn Forest and the mass murder that filled them with bodies has been the subject of an extensive literature, and as such is worthy of a brief overview. The literature on Katyn written before 1991, when Mikhail Gorbachev publicly admitted Soviet responsibility for the murders, was focused almost entirely on establishing who the guilty party was, and when the murders were committed.¹⁴ Naturally, this was a politically and nationally charged endeavor for the writers involved, and readers of the early Katyn literature are forced to wade through polemic and bias in order to find anything resembling facts. Beginning in the early 1950s, Polish authors writing in English speculated that the prevailing narrative in the West—that the Germans had killed the Polish officers found in the graves—was incorrect, and that the officers had actually met their deaths in the Soviet Union at Soviet hands.¹⁵ In 1965, the Polish Cultural Foundation in London published an English translation of a 1948 report that had come to the same conclusion, based on both German documents and records of Polish interactions with the Soviet government as they searched for their missing officers.¹⁶ In the 1970s and 1980s brought with them an increase in British and American scholars writing on the topic, largely reviewing the facts on the Katyn, concluding that the Soviets were responsible, and calling for the British and American governments to admit their role in covering up the Soviets' responsibility for the murders in order to preserve the wartime alliance between those countries and Stalin's Soviet Union.¹⁷ Once questions of guilt were established, and some scholars given access to Soviet files about the execution order and

¹² "Radio Communiqué on the Discovery of Graves of Polish Officers in the Smolensk Area 13 April 1943, Berlin, 9:15 a.m.," reproduced in Cienciala, Lebedeva, and Materski, eds. *Katyn*, 305-06.

¹³ Winston Churchill saw the Nazi claims about the mass grave at Katyn as elaborate propaganda intended to disrupt Allied unity. Churchill told the Polish Prime Minister that, in any case, it didn't matter who had killed the officers: "If they are dead," he told Sikorski, "nothing you can do will bring them back." Winston Churchill, *The Hinge of Fate* (Boston: 1950), 759. Press reactions in the US were similarly convinced that the Poles had fallen for a German propaganda ploy. See pieces by Anne O'Hare McCormick, *New York Times*, April 27, 1943, p. 22, and April 28, 1943, p. 22; See also J. Emlyn Williams, *Christian Science Monitor*, April 27, 1943, p. 1.

¹⁴ Either, as in the works discussed below, attempting to prove Soviet responsibility, or a smaller and less convincing group that defended the West's wartime position that the Nazis were responsible. For a work in the latter group, see Shainberg, *KGB Solution at Katyn*.

¹⁵ Early examples of scholarship on Katyn include Mackiewicz, *Katyn Wood Murders*; Zawodny, *Death in the Forest*.

¹⁶ Zdzislaw, ed., *Crime of Katyn*.

¹⁷ British historian Louis Fitzgibbon wrote six books on the topic in the 1970s: *Katyn*; *Katyn: A Crime Without Parallel*; *Katyn: A Triumph of Evil*; *The Katyn Cover-up*; *Unpitied and Unknown: Katyn*; and *Katyn Massacre*. Just before the end of the Cold War, American historian John H. Lauck contributed another review of the available documents that details of the events leading up to Katyn and its aftermath: *Katyn Killings: In the Record*.

how it was carried out, the 1990s saw a revival of works on the Katyn murders.¹⁸ More recent English-language works on the subject have largely turned away from establishing guilt,¹⁹ toward a reflection on the impact of the crime on Polish identity and history and on Polish-Russian relations.²⁰

This extensive literature on the Katyn Forest massacre largely focuses on establishing Soviet guilt for its commission, and on the implications of that guilt for history, memory, and politics. In the context of this project, there has been little effort to take the Nazi-led exhumation seriously on its own terms, or as a scientific achievement. Much of the Katyn literature glosses over the event, describing it as a Nazi propaganda stunt—if one whose factual accuracy stood the test of time. In the context of this chapter and this dissertation, it is the propaganda aspect that is less interesting than the scientific one; it takes seriously the scientific value of the exhumation, and describes the doctors' work in detail. Yet it cannot ignore the fact that Joseph Goebbels' Propaganda Ministry was involved in organizing and promoting the exhumation as a way to sway international opinion about the Soviets.

Using memoirs, later court testimonies, and letters from the forensic doctors who participated and the official medical reports from the German, Polish, and international forensic teams, the chapter that follows examines the historical context and practical execution of the politically-charged and scientifically-novel Katyn Forest exhumation. It posits that the scientific investigation that took place in the Katyn Forest should not be understood, as it has been in much of the scholarly treatments of the subject, simply as propaganda—a discovery of bodies of Soviet victims leveraged to turn international public opinion against Moscow—but as a legitimate moment in the scientific and moral history of the effort to use bodies as evidence of large-scale crimes. In the minds of these participants, their work in Katyn was unprecedented; this was the first pathologist-led investigation of a mass grave to investigate a large-scale crime.²¹ The Katyn Forest exhumation occurred at too early a historical date to call it a human rights investigation; the concept of human rights as we understand it—and with it, violations of those rights and corollary investigations into those violations—were still years off.²² Although some of the forensic doctors, like Naville,

¹⁸ Vladimir Abarinov published an article about Katyn in the Russian cultural and political newspaper the *Literaturnaya Gazeta*, and asked his readers to contact him with further information, which thousands did. Abarinov also used his name to gain access to the Soviet Archives and was the first scholar to review Soviet documents relating to the crime. See Abarinov, *Murderers of Katyn*; Paul, *Katyn*.

¹⁹ With the notable exception of the edited volume *Katyn: A Crime Without Punishment*, which compiles Russian, Polish, and German documents on the Katyn murders and exhumation, both original and in translation, and offers what should be considered the definitive narrative on Katyn.

²⁰ As in the newest book on Katyn, which examines the meaning of Katyn as a physical site and ideological symbol in the historical and current relations of Russia and the countries of the former Soviet Union: Etkind, Finnin, Blacker, Fedor, Lewis, Mälksoo, and Mroz, *Remembering Katyn*.

²¹ For this argument, see Hanson, "Forensic Archaeology: Approaches to International Investigations," in the forthcoming volume *Archaeology and Bioanthropology of Gravesites*.

²² For a comprehensive discussion of recent scholarly debates over the chronology of human rights, see Moyn, "Substance, Scale, and Salience." On the political and legal impotence of rights in the 1940s, Mark Phillip Bradley writes, it was only in the 1970s "that the human rights norms of the Universal Declaration became believable again [...] when their spirit remerged with a vengeance along with a renewed appreciation of the kind of political work the human rights frame could do." See Bradley, "Approaching the Universal Declaration of Human Rights," 335. For an overview of the inception of legal understandings of the laws of war and violations of rights within it, see Pendas, "Toward World Law?"

expressed a feeling of duty to the dead or to their families, they saw the Katyn graves as the result of an act of mass murder: a heinous crime and one worthy of investigation, but not as a violation of the rights of the dead.

Even so, this chapter identifies two major ways in which the exhumation of the mass graves in the Katyn Forest can be considered a historical precursor of sorts, a kindred event to forensic investigations with explicit human rights ties that came in later decades. First, the involvement of an international group of scientists specifically for the purpose of offering objectivity and transparency—real or perceived—would become a feature of later such investigations, many of which were conducted under the auspices of international NGOs rather than state actors. Second, the forensic doctors who worked at the Katyn Forest gravesite coded their reports and later testimonies and writings in both scientific and ethical language, melding their adherence to the facts they found in the graves with outrage over the crimes that created them. In the case of the Katyn Forest investigation, these two factors had a profound impact on the reception of the Katyn Forest Massacre story in media outlets and national capitols around the world. The presence of groups such as the Polish Red Cross at the gravesite during the exhumation, as well as the signatures of Swiss and American-born doctors caused considerable confusion over how much weight they should give to the Nazis' claims about how the men had died. Through the story told in this chapter, I argue that, as much as the Katyn exhumation was scientifically unprecedented, it was also politically and publicly unprecedented, testing the influence of both science and internationalism on the reception of an account of large-scale crime.

* * *

IN EARLY MARCH 1943, Dr. Gerhard Buhtz arrived in the Katyn Forest. The Nazi government would not announce their discovery of the graves there to the world for another five weeks; when he arrived, Buhtz' job was simply to assess what it was, exactly, members of 537th Signals Regiment had found in the forest. Alongside the clearing in question, where German soldiers and local workers had dug test pits that revealed scores of bodies in Polish officers' uniforms, ran the Vitebsk Highway, a two lane dirt road that ran from the Russian city of Smolensk, six or seven miles to the east of where he stood, to the now-Belarusian city of Vitebsk, some sixty-five miles to the west. In less than six months, the Red Army would use the Vitebsk Highway as they marched west, pushing the German *Wehrmacht* out of Soviet territory, and eventually out of the war. But in the first days of March 1943, the fighting was far to the east of the Katyn Forest.

According to the forensic report Buhtz contributed to the official German account of the Katyn Forest investigation, the German doctor directed local hired workers to dig test graves in the clearing, which quickly revealed that the Signal Regiment's soldiers had been telling the truth: in every hole they dug, the shovels eventually struck a layer of bodies. Once it was established that the clearing contained a large grave, the workers yielded to the difficulty of digging through the still-frozen earth, opting to wait for the thaw to begin the exhumation in earnest. There was plenty to do in the meantime, though. Performing thousands of autopsies in the middle of the woods, in the

middle of a war, would be no easy task. The German doctor and a team of local laborers set to work to build a usable forensics lab adjacent to the clearing.²³

Buhtz was an interesting and complicated character. He was a well-known and well-respected forensic scientist from the University of Breslau, now the western Polish city of Wrocław. At the start of the First World War, he dropped out of college to join the German Army, abandoning his university studies in medicine and law. After the war, Buhtz returned to medical school, and completed a doctoral dissertation before becoming the assistant director of the Institute of Forensic Medicine at the University in Heidelberg. There, Buhtz led a groundbreaking study on bullet wounds, and began building an esteemed reputation in the medical and forensic communities in Germany and on the European continent. But in an odd twist, Buhtz was equally well known for something else: he was an early adopter of National Socialism.²⁴

Buhtz joined the *Schutzstaffel* (SS), the Nazi paramilitary wing, in April 1933, just three months after Adolf Hitler rose to the chancellorship. As Germany's war against the Soviet Union ramped up in 1942, he became involved with German actions on the eastern front, both on the battlefield and in the concentration camps—including a stint at Auschwitz, where Buhtz assisted with sterilization experiments using radiation.²⁵ Buhtz would die in an Allied bombing raid in 1944,²⁶ and left no official or personal writings about the Katyn Forest exhumation other than his forensic medical report; it is therefore impossible to know the internal motivations that brought him to the gravesite. But it can safely be said that the Katyn Forest investigation brought together two parts of the doctor's life: his expertise in forensic medicine, and his devotion to the Nazi cause.

The men buried in the mass graves in the Katyn Forest had put their professional lives on hold to fight for their country, just as Buhtz had done nearly three decades earlier. Germany struck the opening blow of the Second World War in the early morning hours of September 1, 1939. Under the pre-dawn darkness and a heavy layer of mist, the German air force, the *Luftwaffe*, began dropping bombs in Polish territory as 1.5 million German troops and 1,000 armored combat vehicles began streaming across the 1,750-mile border between Poland and Germany. Poland's military responded to the surprise attack and assembled its men, but Poland's air force and infantry were small and outdated compared to their German counterparts. Two and a half weeks later, the Soviet Red Army

²³ "Protokolle und die Obduktionsbefunde des deutschen Gerichtsarztes," in *Amtliches Material zum Massenmord von Katyn*, 44.

²⁴ Klee. *Das Personenlexikon zum Dritten Reich*, 570.

²⁵ In November of 1942, Buhtz became a forensic and medical advisor to the German Army Group Mitte, one of three *Wehrmacht* groups tasked with the assault on the Soviet Union. His involvement with the Army Group brought him east, where he found himself in the infamous laboratory at Auschwitz. Inside the barbed wire that held the camp's population of three-quarters starved Jews, gypsies, and other people deemed unsuitable for the racially pure Nazi state, Buhtz set up shop in Block 30 in the women's hospital alongside a young German physician named Horst Schumann. Schumann lab consisted of two x-ray machines, and together Buhtz and Schumann placed dozens of prisoners under the machines, and pointed the rays at their laps for several minutes at a time, repeatedly. The radiation burns that resulted were horrific, and most either died from their injuries or were sent to the gas chambers, deemed unfit to work. The purpose, insofar as there was one, to torturing the prisoners this way, was to determine whether x-rays can sterilize a person, permanently damaging their sexual organs and rendering them incapable of reproduction. (They can, and these experiments are one reason a technician will cover your torso with a lead apron during an x-ray.) See Klee, *Das Personenlexikon zum Dritten Reich*, 570.

²⁶ Klee, *Das Personenlexikon zum Dritten Reich*, 570.

launched a second surprise attack, across the country's eastern border; besieged from both sides, Poland's army lasted only ten more days before surrendering Warsaw to the German Army.²⁷

An estimated two hundred thousand Polish soldiers and military personnel were killed or injured in the 27 days of fighting. Many more were taken prisoner: the Soviets took almost a quarter million prisoners of war (POWs); the Germans took nearly 700,000.²⁸ The men who ended up in the mass graves in the Katyn Forest were among the 250,000 Poles who surrendered to the Red Army. About five thousand officers were transferred to a POW camp called Kozielsk, one of three facilities in the western Soviet Union used to hold officers. For the first six months of their capture, the officers' families received letters from their fathers, sons, husbands, and brothers. In April and May of the following year, 1940, however, the letters stopped coming.²⁹

The captured officers held at Kozielsk were, on the whole, members of Poland's professional and intellectual elite, not the demographic most inclined toward Communism. During their time in the POW camp, they endured a concerted effort to convert them; by early March, though, the head of the NKVD, Lavrentiy Beria, decided that the effort was hopeless. The offers were "irredeemable enemies of Soviet power," Beria wrote to Stalin. As a solution, Beria recommended "the supreme punishment, [execution by] shooting."³⁰ Stalin granted his approval, and executions started less than a month later.³¹

In the first days of April 1940, the Soviets loaded the Polish officers were loaded onto trains in groups of about two hundred at a time. Once on board, the Soviet officials told they were going home. But instead of heading west, toward Poland, the trains went east, deeper into the Soviet Union. The trains pulled into the Gniezdowo station, one stop past the city of Smolensk. There, the men filed out of the train cars and onto four Soviet prison trucks, so-called "Black Ravens," which took them eight miles further east down the Vitebsk Highway. They turned off the highway into a clearing about 200 meters from the road, in the southern section of the Katyn Forest known as Kozy Gory or "Goat's Hills," and near a luxurious military residence known as the Dneiper Castle.³² There, the Poles were hustled off the trucks, and lined up in a clearing alongside the residence.

²⁷ For a recent and comprehensive overview of the German and Russian invasions of Poland, see Hargreaves, *Blitzkrieg Unleashed*, 254-5; see also Böhler, *Auftakt zum Vernichtungskrieg*; Chodakiewicz, *Between Nazis and Soviets*.

²⁸ Kochanski, *The Eagle Unbowed*, 84.

²⁹ "The Katyn Forest Massacre: hearings before the Select Committee," (Testimony of Casimer Skarzynski), Vol. 3, 1613.

³⁰ "Beria Memorandum to Joseph Stalin Proposing the Execution of the Polish Officers, Gendarmes, Police, Military Settlers, and Others in the Three Special POW Camps, Along with Those Held in the Prisons of the Western Regions of Ukraine and Belorussia, Accepted by the Politburo 5 March 1940, Moscow," reprinted and translated Cienciala, Lebedeva, and Materski, *Katyn*, 118-120.

³¹ "Beria Memorandum to Joseph Stalin Proposing the Execution of the Polish Officers, Gendarmes, Police, Military Settlers, and Others in the Three Special POW Camps, Along with Those Held in the Prisons of the Western Regions of Ukraine and Belorussia, Accepted by the Politburo 5 March 1940, Moscow," reprinted in Cienciala, Lebedeva, and Materski, *Katyn*, 118-120, 121.

³² The location of the Dneiper Castle is cited by various eyewitness accounts and testimonies of doctors, journalists, and others brought to the Katyn gravesite. The specifics of the location are detailed in the Soviet report on the Moscow-sponsored exhumation of the Katyn graves in January 1944. While much of the Soviet report was fabricated and is of questionable usefulness, on this particular detail this report is consistent with various other witness statements. "Report of Special Commission for Ascertaining and Investigating the Circumstances of the Shooting of Polish Officer Prisoners by the German-Fascist Invaders in the Katyn Forest." Reproduced in "The Katyn Forest Massacre: hearings before the Select Committee," Vol. 3, 229.

NKVD guards asked them to remove their wedding rings, and then searched their pockets, taking Russian rubles, pocketknives, and wristwatches.³³ Each officer's hands were tied behind their backs so tightly that it began to cut into the skin of his wrists. Some of them received an additional restraint: their overcoats were pulled over their heads, and secured by a loop of rope around their necks that ran down their back and attached to their wrists. The more he struggled, then, the tighter the restraint would grow around his neck.³⁴ Some were also given bayonet stabs in the torso.

In an article published a half-century later, a man who claimed to be one of the NKVD guards who participated in the Katyn Forest executions described the method of killing. The officers, he wrote, were marched into the woods, and held still by two NKVD men, one on either side. Then a third guard walked up behind him, placing his gun barrel against the back of the officer's neck, where the spinal column meets the skull, and pulled the trigger. The NKVD was practiced at this form of execution, and most of the officers needed only one bullet. But even though their hands were steady, there was a psychological toll. Each guard was supplied with grain alcohol and luxury snacks like sausage and sturgeon, hard to come by during the war. The men also used the alcohol to sanitize their hands between each execution.³⁵ Nearly every day for five weeks, a new group of men were executed in the clearing in the Katyn Forest. The bodies were dragged into prepared mass graves and stacked neatly, face down. In the largest grave, an "L" shape about 50 feet wide by 100 feet long, bodies were laid like this in twelve layers.³⁶ Dirt was replaced on top of the bodies, and then, a final touch: two-year-old conifer saplings were planted in the clearing over the graves. Finally, in mid-April, the operation came to an end.³⁷

Dead men can't tell tales, the saying goes. But a change in the direction of the war the following summer brought their bodies back to haunt the Soviets. In July 1941, the Germans turned on their former ally and launched Operation Barbarossa, an invasion of the Soviet Union. The battle for the city of Smolensk raged for two months. The Red Army abandoned the city to the Germans in September. Meanwhile, having been burned by his former ally, Stalin switched sides in the war, the Soviet Union joining the Allies in their fight against Nazi Germany. Suddenly, the Soviets found themselves on the same side of the war as Poland—whose government was in exile in London—and no longer in control of the graves where the officers were buried.³⁸ In German hands, the graves in the Katyn forest posed a threat to the very ideology the Polish officers were killed to protect.

By the fall of 1941, a German Signal regiment was stationed at the Dneiper Castle, and the graves were located sometime that winter.³⁹ According to a dispatch from the German Foreign Office to the German Embassy in Bern, Switzerland, Polish workers conscripted to the German

³³ *Amtliches Material zum Massenmord von Katyn*, 31; "Agent Report: Katyn Forest, Massacre of Polish Officers, 1940," NARA CP RG 319 Records of the Army Staff, Permanent Retention Files 1918-1963, Folder 1 June 52 - 31 December 52, Katyn Massacre.

³⁴ "Committee of Enquiry into the Question of the Polish Prisoners of War from 1939 Campaign missing in the USSR," 47, NARA CP RG 59 General Records of the Department of State, Central Decimal File 1950-1954 646.2164/1-2650.

³⁵ ACICR, P FN-084, "I Witnessed the Horror of Katyn," *The European*, September 14-16, 1990.

³⁶ *Amtliches Material zum Massenmord von Katyn*, 10; alternatively cited as 26mx16m on 39.

³⁷ On executions of Polish officers generally, see Cienciala, Lebedeva, and Materski, eds., *Katyn*, 121-123; on the Katyn officers in particular see same, 130-136.

³⁸ For a recent account of the German invasion of the Soviet Union, see Hartmann, *Operation Barbarossa*.

³⁹ International Military Tribunal, (Trial Transcripts) Vol. 17, 276.

Wehrmacht heard rumors from locals that large numbers of their countrymen had been shot in the Katyn Forest. The workers took shovels into the woods in search of the graves, which they found, staggering in scale. The workers decorated the graves with rough crosses fashioned out of birch branches, and left them alone. Rumors, though, reached the officers of the Signal Regiment in February, and the site was inspected in the first days of March.⁴⁰ Lt. Ludwig Voss, a commanding officer with the Signal Regiment, filed an official report with the Commander of German Army Group Mitte, the *Oberkommando des Heeres*, and the Quartermaster of the 4th Army. The latter contacted Dr. Buhtz, the 4th Army's forensic consultant. According to his own account, Buhtz headed for Katyn immediately to make preparations for the exhumation.⁴¹

Meanwhile, Joseph Goebbels, the Nazis' Propaganda Minister, and other members of the Nazi government in Berlin were also hard at work. As a forensic lab sprang up near the gravesite in the Katyn Forest, Goebbels set about organizing three groups of visitors to view the results of the forensic efforts, consisting of people whose written or spoken accounts of what they saw would help to legitimate the German claims that the graves were real, and that the Polish officers were victims of a Soviet crime: first, a group of journalists from a variety of European countries, including neutral Sweden; American and British officers held by Germans as prisoners of war; and representatives from the international medical and forensic community, including the Geneva-based International Committee of the Red Cross.

The first of these groups, the international journalists, visited the gravesite in the early days of the exhumation, before the German government announced the discovery to the world. One, a Swede named Christian Jaederlunt, was the Berlin Correspondent for the *Stockholm Tidningen*, a Swedish daily newspaper. Jaederlunt later testified that he had received a call at the headquarters of *Tidningen's* Berlin bureau from the German Ministry of Propaganda, giving him an offer, he remembered later, that was difficult for the journalist to turn down: an opportunity to travel to the Soviet Union as part of a German-funded press convoy. Jaederlunt remembered later that the representative declined to provide any details, but simply stated that the journalists in the convoy would travel with a high-ranking officer of the German army, and have early, exclusive access to a major news story. Jaederlunt remembered that his journalistic curiosity was piqued, and he agreed to go along with the mysterious journey east.⁴²

It was only once they arrived in Smolensk that the real purpose of their visit was revealed: their Nazi officer escort told the group that mass graves had been found in the forest nearby. Jaederlunt remembered later that the "journalists looked at each other with long faces and all agreed that if we had known that beforehand, we would never have gone there;" a Nazi accusation of a war crimes, Jaederlunt remembered, struck them as a likely propaganda stunt. But when they arrived at the grave later that day, the journalists were no longer so sure. Jaederlunt remembered that he and

⁴⁰ Summary of Findings at Katyn as of 11 April 1943, from the head of the Cultural Policy Department, Dr. Six, to the German Legation in Bern, 15 April 1943. Reproduced as Exhibit 24, "The Katyn Forest Massacre: hearings before the Select Committee," Vol. 5, 1359.

⁴¹ "Protokolle und die Obduktionsbefunde des deutschen Gerichtsarztes," in *Amtliches Material zum Massenmord von Katyn*, 38.

⁴² "The Katyn Forest Massacre: hearings before the Select Committee," (Testimony of Christian Jaederlunt), Vol. 5, 1562.

the others opened their car doors and were almost knocked backwards by the smell of decomposing flesh.⁴³ The site made a major impression on the Swedish journalist, even as he told the story years later: bullet holes in the backs of their heads made it clear the men had been executed, and the way they were intertwined in the grave made it equally clear they had not been moved from somewhere else to create a staged gravesite.⁴⁴ The completely free reign the Nazi hosts gave to the journalists to explore the area also made an impression on the journalists. They examined letters and newspapers found in the grave—all of which, they noted, were dated before May 1940, when the Katyn Forest was still in Soviet hands—and were allowed to wander the gravesite and the surrounding countryside, talking to the forensic doctors at the site, German soldiers, and locals. Jaederlunt returned to Berlin convinced that the German version of the story was credible; but, he testified later, his editors were not sure enough to break the Katyn story on the pages of the *Stockholm Tindingen*. Better to lose the story, they told him, than to fall prey to a German propaganda ploy.⁴⁵ The Nazi Propaganda Minister succeeded in convincing Jaederlunt—and, the Swedish journalist remembered, the other journalists were just as convinced—but not to break the story for him.

The second group of visitors Goebbels arranged to view the gravesite returned just as convinced as the journalists that the German claims regarding the Katyn Forest graves were true, but they were just as reluctant to announce that conclusion publicly. In mid-April, two American officers—a Lieutenant Colonel John H. Van Vliet, Jr., and Captain Donald Stewart—and three British officers, all prisoners of war, to the Katyn Forest to view the exhumations. All five loudly protested. “It was evident to all of us,” Van Vliet wrote after the war, in a report to the U.S. Army Chief of Information about the trip, “that we were involved in an international mess with terrific political implications.”⁴⁶

In memoirs, letters, and testimony after the war, Van Vliet, Stewart, and two of the British officers reported feeling much like the foreign journalists before them: fully expecting to find a staged gravesite, featuring some bodies dressed up as Polish officers on display. But, like Jaederlunt, they all recalled that the gravesite made an immediate impression. Smelling the scent of decay, watching the difficulty the civilian workers were having removing bodies from the graves, and taking in the sheer number of bodies convinced them that the grave could not have been a stunt.⁴⁷ Each of the men also noted one detail in particular: the condition of the Polish officers’ boots and uniforms, which appeared to be virtually new. The British and American officers knew full well the toll years

⁴³ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Christian Jaederlunt), Vol. 5, 1562.

⁴⁴ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Christian Jaederlunt), Vol. 5, 1562.

⁴⁵ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Christian Jaederlunt), Vol. 5,, 1562.

⁴⁶ “Report on the Katyn Case, Letter from Lt. Col. John H. Van Vliet, Jr. to Major General F.L. Parks, US Army Chief of Information,” NARA CP RG 59 General Records of the Department of State, Records Relating to Poland, Officer in Charge Polish, Baltic, and Czechoslovak Affairs, 1949-1952.

⁴⁷ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Christian Jaederlunt), Vol. 5, 1562; “Report on the Katyn Case, Letter from Lt. Col. John H. Van Vliet, Jr. to Major General F.L. Parks, US Army Chief of Information,” NARA CP RG 59 General Records of the Department of State, Records Relating to Poland, Officer in Charge Polish, Baltic, and Czechoslovak Affairs, 1949-1952; “History of Visit Made to Katyn by Captain Stanley S. Gilder,” RG 59 Records of the Department of State, NARA CP RG 59 General Records of the Department of State, Records Relating to Poland, Officer in Charge Polish, Baltic, and Czechoslovak Affairs, 1949-1952.

of captivity took on an officer's boots and uniform. It was clear to them, the American Lt. Col. Van Vliet remembered later, that the Poles must have been killed soon after they were captured—and not, as the Soviets claimed, by the German Army, after nearly two years in captivity.⁴⁸

“At the beginning of the newspaper publicity concerning Katyn,” Van Vliet wrote after the war, “I believed the whole thing to be one huge, well managed, desperate lie by the Germans to split the Western Allies from Russia. [...] I didn't want to believe them.”⁴⁹ But by the time they left the gravesite in the Katyn Forest, Van Vliet and the others were convinced that the Germans were innocent in the murder of the Polish officers.⁵⁰ Such a realization left the American and British officers in a morally fraught position: they did not want to believe the Germans, but they could not deny what they had seen. “In spite of the animosity I had toward the Germans at the end of the war, and in spite of what we have found out about their concentration camps, in spite of everything that I learned about the Germans while I was a prisoner,” Stewart testified later, “it did not change that conviction that I formed then, that in this one case [...] the Germans were not responsible.”⁵¹ None of the British or American soldiers, however, spoke publicly about what they had seen until they testified before a US Congressional inquiry in 1952.

The third group of visitors Goebbels sought was perhaps the most obvious one to consult in the wake of a large-scale wartime crime: the International Committee of the Red Cross (ICRC). On April 17, the German Duke of Saxe-Coburg and Gotha, the head of the German Red Cross, sent a note to Max Huber, the head of the ICRC. “In light of the international importance” of the discovery at Katyn, the Duke wrote, it was “highly desirable” that the ICRC provide international oversight of the investigation. But thirty minutes later, Huber received a second request for intervention at Katyn, this time from the London-based Polish Government-in-Exile, requesting that the ICRC send monitors to the Katyn Forest.⁵² Later that day, the Polish Minister of National Defense made a public plea for the same: the German claim of having found mass graves, he said, “should be investigated and the facts alleged verified by a competent international body such as the International Red Cross.”⁵³

The timing of the German and Polish requests complicated matters for the Huber and the ICRC. Some in Moscow must have realized that it could be made to seem that the London Poles were working with the Nazis to turn the Katyn graves into a propaganda smear campaign against the Soviet Union; an editorial to that effect ran in *Pravda* two days later, April 19, titled “Hitler's Polish Collaborators.”⁵⁴ For the ICRC, Moscow's interest was a problem: although the alleged execution of

⁴⁸ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Donald B. Stewart), Vol. 1., 15, 22-25.

⁴⁹ “Report on the Katyn Case, Letter from Lt. Col. John H. Van Vliet, Jr. to Major General F.L. Parks, US Army Chief of Information,” NARA CP RG 59 General Records of the Department of State, Records Relating to Poland, Officer in Charge Polish, Baltic, and Czechoslovak Affairs, 1949-1952.

⁵⁰ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Donald B. Stewart), Vol. 1, 22-25.

⁵¹ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Donald B. Stewart), Vol. 1, 22.

⁵² Cieniala, Lebedeva, and Materski, *Katyn*, 216.

⁵³ Zdzislaw, ed., *Crime of Katyn*, 89.

⁵⁴ “Foreign Service of the United States of America, American Embassy in Moscow. Memo received May 6, 1943. Subject: Transmitting translation of editorial entitled ‘Polish Collaborators of Hitler’ in Pravda for April 19, 1943,” NARA CP RG 59 General Records of the Department of State, Decimal File 1940-44 740.00116 EW 39/900 to 740.00116 EW 39/1049.

thousands of prisoners of war was directly under the ICRC's purview, Huber worried that the Soviets would retaliate, and deny the ICRC access to POW camps within Soviet-held territory.⁵⁵ This left Huber and the ICRC in a conundrum: what was more important? Investigating the deaths of prisoners of war, or monitoring the conditions under which live ones were kept? A telegram to the US Secretary of State Cordell Hull from the American Ambassador to Switzerland commented that the ICRC was seeking "some formula under which it could refuse without injuring its status in Germany and elsewhere and without arousing too much criticism."⁵⁶ The ICRC leadership in Geneva held a series of meetings on April 19 and 20 to determine what to do. Ultimately, what triumphed was a 1939 policy that required all involved parties to agree to ICRC involvement in investigations of alleged breaches of international law.⁵⁷ Huber announced that the ICRC would gladly send monitors to the Katyn Forest exhumations if all involved parties—German, Polish, and Soviet—would agree to the organization's involvement. As expected, the Soviets refused to allow ICRC oversight of the exhumation, so Huber and the ICRC refused to attend.⁵⁸

Although the first three explicitly international groups of visitors Goebbels arranged failed to produce public and independent confirmation of the graves, the Propaganda Minister was quietly at work recruiting another group, one that ultimately was more receptive: the Warsaw-based Polish chapter of the Red Cross. On April 9, 1943, one of Goebbels' staff members at the Propaganda Ministry called the Warsaw office of the Chairman of the Polish Red Cross, Dr. Wladyslaw Gorczycki, and told him about the graves of Polish officers in the Katyn Forest. According to testimony Gorczycki gave after the war, the German then told him that Goebbels had arranged a plane to take several people from Warsaw to Smolensk. Although he was worried about falling prey to a Nazi propaganda stunt, Gorczycki testified that members of the Polish Red Cross decided to participate. Better to see the situation for themselves, they thought, than allow the Germans full control over the story.⁵⁹

Gorczycki appointed the Polish Red Cross's General Secretary, a former paper company executive named Casimer Skarzynski, to assemble a team of medical and forensic experts. On April 14, Skarzynski and four doctors boarded a plane bound toward Smolensk. Although the forensic team was prepared to spend the summer in the Katyn Forest, they were also prepared for the trip to be a short one. Skarzynski testified after the war that he expected to find a staged gravesite; chances were high, he thought, that he and the Polish doctors would take one look and return to Warsaw.⁶⁰ But just like the other visitors, the Polish Red Cross team was struck by what they saw. The first four graves of the seven large graves in the clearing were completely uncovered, Skarzynski

⁵⁵ ACICR, A CL 06.000 Memo dated 19 April 1943

⁵⁶ "Telegram Received, Department of State, Washington, D.C. from Leland B. Harrison to Cordell Hull, dated April 22, 1943," NARA CP RG 59 General Records of the Department of State, Decimal File 1940-44 740.00116 EW 39/800 to 740.00116 EW 39/899.

⁵⁷ ACICR, A CL 06.001, "Memorandum on the activities of the International Committee of the Red Cross in regard to violations of international law"

⁵⁸ ACICR, A CL-06.002, "April 16, 1943 memo from Max Huber to Grawitz Präsident Deutschrotkreuz Berlin"

⁵⁹ "The Katyn Forest Massacre: hearings before the Select Committee," (Testimony of Casimir Skarzynski), Vol. 3, 396.

⁶⁰ "Committee of Inquiry into the Question of the Polish Prisoners of War from 1939 Campaign missing in the USSR," London, January 25, 1950," 18, NARA CP RG 59 General Records of the Department of State, General Decimal File 1950-54 646C.0022/10-652 to 648.6126/8-2550.

remembered later, exposing the top layer of bodies. The other three graves were only partially uncovered, a fact that pleased the Polish doctors: there was little chance, they thought, that the Germans could have tampered with these graves.⁶¹ Skarzynski decided that the Polish Red Cross team should stay at the Katyn Forest gravesite and participate in the exhumation.

Meanwhile, doctors from all over the European continent—such as Naville and Miloslavich, the Swiss and American-born Croat doctors who opened this chapter—were making their own decisions about whether or not they would accept invitations they had received to participate in the Nazi exhumation in the Katyn Forest. The Swiss doctor, Naville, took two days to consult with members of the Swiss government and to sort out his own thoughts on the matter. The Swiss Minister at the *Department Politique Fédéral*, Pierre Bonna, gave Naville permission to go, as long as he did so as a private person, not as a representative of the Swiss state.⁶² With this tacit approval—if not official support—Naville decided to participate. According to his memoir, on April 26, the doctor boarded an 11am train from Geneva to Berlin, which arrived at the German capitol's *Hauptbahnhof* early the next morning. Naville caught a taxi to the city's famous landmark, the Hotel Adlon. Located on the Unter den Linden, the main boulevard through Berlin's Mitte district, and directly across from the imposing triumphal arch of the Brandenburg Gate, the Hotel Adlon was, and remains, one of Berlin's iconic luxury hotels. The impressiveness of the meeting location—and perhaps also the sense of importance it conveyed about the forensic doctors' visit—was not lost on Naville.⁶³

Other forensic doctors arrived at the Hotel Adlon over the course of the day. The final group consisted of thirteen men from as many European countries: in addition to Naville and Miloslavich, scientists arrived from Belgium, Bulgaria, Czechoslovakia, Denmark, Finland, France, Hungary, Italy, Netherlands, Romania, and Slovakia. They were experts in forensic science, experienced with autopsies, death investigations, and generally with working with the dead. The German government had chosen them for their international reputation in the field of forensic medicine. Telegrams from Berlin to the German Legation in Bern, Switzerland, provided instructions about who to invite from the Swiss forensic community: they were to “invite a suitable pro-German forensic pathologist, if possible of international reputation.”⁶⁴ One of the Swiss doctors recommended for the commission was deemed unsuitable, “as he has no professional reputation, and his attitude toward Germany is unknown.”⁶⁵ One of these goals was easier to achieve than the other: the final group of pathologists was more respected professionally than they were pro-German. The Swiss Naville claimed after the war that it was a well known fact that he had “hated

⁶¹ “Committee of Inquiry into the Question of the Polish Prisoners of War from 1939 Campaign missing in the USSR,” London, January 25, 1950,” 18, NARA CP RG 59 General Records of the Department of State, General Decimal File 1950-54 646C.0022/10-652 to 648.6126/8-2550.

⁶² ACICR, P FN-003, “Telegramme de Pierre Bonna (DPF) au FN l'autorisant participer a la Commission d'experts neutre a titre prive”

⁶³ ACICR, P FN-023, “Histoire de ma mission a Smolensk.”

⁶⁴ “Order that an invitation be given to Dr. Zanger in Zurich to join a commission of international experts,” from the head of the Cultural Policy Department, Dr. Six, to the German Legation in Bern, 20 April 1943. Reproduced in “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Dr. Francois Naville), Vol. 5, 1374-5.

⁶⁵ “Communiqué from the German consulate in Zurich to the Legation in Bern,” reporting that an invitation to Professor Zanger is not possible, 22 April 1943. Reproduced in “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Dr. Francois Naville), Vol. 5, 1380-81.

the Germans” since the first World War; the Danish doctor, Helge Tramsen, would be imprisoned in a concentration camp later in the war for his involvement with the resistance movement; and, in a less personal but more public display of disapproval, the Spanish doctor, Antonio Piga y Pasqual, was ordered home from Berlin before the group left for Katyn, forcing the doctor to feign illness.⁶⁶

After an evening welcome reception featuring prominent members of the German forensic and medical community, the doctors reconvened the next morning in front of the hotel, where cars took them to Berlin’s Templehof Airport. There, *Luftwaffe* Condor planes waited for them on the tarmac. The Condor was a four-engine plane used by the Germans for everything from long-haul flights to transports to makeshift bomb drops. Condors’ passenger cabins were unpressurized, so the planes cruised at just under 10,000 feet, about the elevation of thin-aired Leadville, Colorado, the highest incorporated city in the United States. After a breathless flight to Warsaw, the planes landed to refuel and allow the passengers to have lunch.⁶⁷

The reality of the war outside—the larger context in which the doctors’ work was to take place—was impossible to miss as the planes approached the Polish capitol. In his memoir, Naville recalled they could see smoke rising out of the city from the infamous Warsaw Ghetto Uprising, the largest single act of Jewish resistance to the Holocaust, which had started ten days before their arrival. The doctors did not know at the time that a battle raged between armed Jewish resisters and SS officers tasked with liquidating the city’s large ghetto.⁶⁸ In spite of the battle for the ghetto that was taking place across the city, Naville remembered lunch took place as if nothing was out of the ordinary; if anything, it was a sumptuous affair. The menu was abundant, Naville wrote later, and the Nazi officers who joined the doctors for lunch made for pleasant company—“such lovely sorts!” Even the wine, Naville remembered approvingly, was French. After a two-hour lunch, one can imagine it was a rather more upbeat group of doctors that re-boarded the planes for the final four-hour flight to Smolensk.⁶⁹

Landing at the Smolensk airfield, though, made the wartime context of their work even harder to ignore. A German Army general surgeon greeted the group, and escorted them across the war-scarred city to, as Wilhelm Zietz, the German doctor tasked with hosting the group, described it after the war, “a so-called hotel.”⁷⁰ The next morning, the doctors regrouped again, this time to drive out to the gravesite in the Katyn Forest. When the diesel army buses arrived at the gravesite, the members of the committee looked out the window to a gruesome scene. Alongside large open pits, they saw “a long line of dead bodies” that had already been removed from the graves. Like the others groups of visitors, though, it was the smell that made the biggest impression. “For the first time in my life,” Zietz remembered later, “I became a chain smoker.”⁷¹

⁶⁶ “Information concerning the Katyn Graves, February 20, 1952,” NARA—Foreign Service Dispatch [Online version, http://media.nara.gov/dc-metro/katyn/648-6126_2-2052-2921/648-6126_2-2052-2921.pdf, National Archives and Records Administration, May 4, 2016].

⁶⁷ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Dr. Wilhelm Zietz), Vol. 5, p. 1487

⁶⁸ On Jewish resistance in the Warsaw ghetto and the 1943 uprising, see Paulsson, *Secret City*; Gutman, *Resistance*.

⁶⁹ ACICR, P FN-023, “Histoire de ma mission a Smolensk”

⁷⁰ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Dr. Wilhelm Zietz), Vol. 5, 1487.

⁷¹ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Dr. Wilhelm Zietz), Vol. 5, 1488.

In the seven weeks since Buhtz's arrival at the grave, the Germans had transformed the clearing near the graves into a functional setting for a forensic investigation. While they waited for the ground to thaw, Buhtz had organized the construction of a forensic field laboratory next to the grave. The Army hired locals to take down a timber-frame house in a neighboring village, and to rebuild it next to the grave. The workers reconstructed the roof to include four skylights, which filled the room with enough light for the doctors to work during the day. In the main room, Buhtz set up an autopsy and examination center, with tables and stretchers, aprons and clothing cover-ups, bags for safe keeping of documents and other evidence recovered from the grave, and numerical tags and wire to attach them to the bodies.⁷²

By the morning of April 29, when the international group of doctors arrived at the grave, about eight hundred corpses had already been exhumed, and many lay in rows on the forest floor around the grave.⁷³ Although the Danish doctor Tramsen observed that the bodies were "in an extraordinary kind of decay, [...] more or less mummified," the fabric of their clothes remained in remarkably good condition. In all, the forensic teams found and opened eight graves of fully dressed Polish officers in the Katyn Forest between mid-March and early June, covering more than five thousand square feet of the Katyn Forest floor.⁷⁴ General Rudolph von Gersdorff, the German Army official in charge of the gravesite, greeted the group of doctors when they arrived. He testified after the war that he told the group they would have total freedom to investigate however they wished. They would be permitted to talk to anyone, would be provided with workers to help them lift bodies out of the graves, and outfitted with tools, clothing, space for autopsies, and transcriptionists to record their findings.⁷⁵ According to written and oral testimony from many of the forensic doctors after the war, on the whole the Germans kept this promise, and allowed them free reign to examine the grave and the bodies as they saw fit.

By the end of April, when the international doctors arrived at the gravesite, the forensic teams were removing an average of one hundred bodies from the graves each day. Doctors assigned each body a number, and laid it on the wooden stretcher on the ground to await further examination.⁷⁶ Then one of the pathologists would examine the state of the body, and assess possible causes of death. In some cases, a full autopsy was performed, but in most it simply was not necessary.⁷⁷ The cause of death in most cases was easily determined: at the base of nearly every skull,

⁷² "Protokolle und die Obduktionsbefunde des deutschen Gerichtsarztes," in *Amtliches Material zum Massenmord von Katyn*, 38.

⁷³ "Protokoll of the International Medical Commission," reproduced in "The Katyn Forest Massacre: hearings before the Select Committee," Vol. 5, 1395.

⁷⁴ *Amtliches Material zum Massenmord von Katyn*, 45-46.

⁷⁵ Testimony of General Rudolph von Gersdorf, Congressional Hearing, Vol. 5, 1314

⁷⁶ "Committee of Inquiry into the Question of the Polish Prisoners of War from 1939 Campaign missing in the USSR, London, January 25, 1950," 28, NARA CP RG 59 General Records of the Department of State, Central Decimal File 1950-54 646C.002/10-652 to 648.6126/8-2550.

⁷⁷ "Committee of Inquiry into the Question of the Polish Prisoners of War from 1939 Campaign missing in the USSR, London, January 25, 1950," 29, NARA CP RG 59 General Records of the Department of State, Central Decimal File 1950-54 646C.002/10-652 to 648.6126/8-2550.

doctors found a “roundish aperture” about eight millimeters across, a bullet entrance wound.⁷⁸ Each body was then examined for any other wounds. Bayonet wounds were particularly revealing: the doctors found that they had been inflicted by four pointed, diamond shaped bayonets, the kind used by the Soviet Army. German bayonets, by contrast, had just three points, forming a triangle. There was little else the doctors could find to necessitate an autopsy: the officers were young and healthy; no signs of illness were found on the bodies themselves, in the tissues or under the microscope.⁷⁹

The examinations of the bodies were slower going than the exhumations. In the meantime, the bodies were laid next to the graves, some on wooden stretchers and some on the grass, before being subjected to an inspection. The doctors sought other kinds of evidence on the bodies—documents, identity cards, newspapers, letters, and photographs—that might help to answer the two primary questions of interest about the graves: determining who the men were, and, most critically, when they died. Determining when the officers died had a direct bearing on determining who killed them, the Germans or the Soviets. The Soviet Red Army retreated from the Smolensk area in August of 1941, ceding the territory to the advancing German *Wehrmacht*. If the graves were older than that, the Soviets were responsible; if the doctors determined instead that they were killed after the German Army’s arrival in Smolensk, the Katyn Forest graves must have been a German crime.

To most of the doctors, the condition of the bodies gave little away about the age of the graves. The bodies on the top and sides of the grave, where the soil was sandy and dry, had largely mummified, their soft tissues had drying almost completely. The bodies in the middle of the grave, where there was moisture from the bodies themselves that sealed out air, bacteria, and insects, had turned to adipocere, a state of decomposition in which body fat turns to a waxen, soap-like substance that held the bodies in a solid mass.⁸⁰ The doctors, having never exhumed a grave of this size, remembered later that they did not know what to make of the varying conditions of the bodies. And even if they had seen such a grave before, it may not have helped; determining time since death based on the state of decomposition is, even today, a difficult task.⁸¹

⁷⁸ “Committee of Inquiry into the Question of the Polish Prisoners of War from 1939 Campaign missing in the USSR, London, January 25, 1950,” 29, NARA CP RG 59 General Records of the Department of State, Central Decimal File 1950-54 646C.002/10-652 to 648.6126/8-2550; *Amtliches Material zum Massenmord von Katyn*, 56-57.

⁷⁹ *Amtliches Material zum Massenmord von Katyn*, 56.

⁸⁰ *Amtliches Material zum Massenmord von Katyn*, 48-9

⁸¹ That the forensic scientists who converged on Katyn had difficulty dating the bodies should come as no real surprise. Even today, the field of forensic taphonomy—analysis of body condition to, among other things, estimate time since death—is still very contentious, and there is no real agreement about how the post-mortem interval can be determined based solely on body decomposition. Death investigations now and then were and are usually limited to identifying the deceased, and determining how, when, and why the person died; any research done on the bodies is a byproduct of this medical-legal investigation, making it hard to conduct any kind of large-scale, repeatable scientific experiment on how bodies decompose. Researchers simply don’t have access to enough bodies to make it possible. And even if they did, body decomposition is dependent on a whole host of factors: whether the body was buried or left on the surface, whether it was buried alone or with other bodies, the time of year, temperature, insect or animal activity, rainfall, the type of soil, the moisture content of the soil, etc. In ideal conditions for decomposition, a body can take anywhere from three to twelve years to turn to bone; in less than ideal conditions—such as a mass grave, where the bodies themselves seal out air, insects, and even bacteria—the process can take decades. Each grave is different from the next, and so case studies can provide enlightening observations but very little in the way of a generalizable yardstick to measure the rate of decomposition. In short, if taphonomy provides no real answers today, one can imagine that, seventy years ago, the pathologists at Katyn were really just shooting in the dark. See Bristow, Simms, and Randolph-Quinney, “Taphonomy,” for an excellent overview of challenges and advances in recent research on forensic taphonomy. See also Ubelaker,

The Hungarian doctor, Ferenc Orsos, the Director of the Department of Judicial Medicine in Hungary's capitol, was the exception among the doctors. Over the course of a prolific career—the doctor testified after the war that he had personally performed over eighty thousand autopsies—Orsos believed he had made a discovery that could determine when the Polish officers had died, and therefore, who killed them. The Hungarian doctor testified after the war that he had spent time in Siberia in the 1930s, exhuming graves and observing the decomposition of bodies over time. In some bodies that had been buried for several years, a grey, clay-like substance built up in the skulls. When a body lay undisturbed for an extended period of time, Orsos theorized, the liquids, acids, and salts in the brain would drain to the part of the skull laying on the ground, and re-solidify over time into lines of yellow and gray that would be visible to a forensic doctor who cut into the skull. Orsos called this phenomenon *pseudocallusbildung*, the formation of what he called “pseudocalluses.” Usefully to the Katyn case, these pseudocalluses were only visible in bodies interred for at least two years—longer than the Germans had been in Smolensk.⁸² None of the other doctors had any personal experience with pseudocalluses prior to their work at the Katyn Forest gravesite, and in the decades since the technique has failed to gain any traction. But Orsos' theory was convincing enough to make it into both the international forensic commission and the official German reports.

Ultimately, the most reliable evidence for the age of the graves came not from forensic science, but from dendrochronology, a method of dating using tree rings. On the international doctors' last afternoon at the gravesite, Dr. Buhtz gathered the group into a large room in an old hospital in the eastern part of Smolensk to show them cross-cuttings of the young fir trees that had grown over the graves. Also in attendance was a forestry expert who had been stationed with the Signal Regiment to string communication wires from treetop to treetop. With the discovery of the graves in the Katyn Forest, his expertise had come in handy in an entirely new way. According to his testimony after the war, the forester, Fritz von Herff, explained that he was sent to the gravesite to inspect the trees around and on top of the grave. When he arrived, the German forensic team had been digging for about two weeks. Bodies and stretchers lay strewn on the forest floor, Herff remembered, and most of the trees were already cut down. Herff took samples as quickly as he could, he testified, but he was convinced these trees had really grown atop the graves being exhumed.⁸³

Once he got the samples back to the lab at the hospital building, the German forester was much more in his element. Looking at a crosscut of wood under a microscope, he concluded that the tree was about five years old. But, he told the forensic scientists, “one of the tree's rings is much smaller than the others.” Herff explained that such a pattern indicated that in that year, three years earlier, something traumatic happened to the tree that stunted its growth that year, such as being moved and replanted in a new location. The five year old trees had therefore been moved, the

“Taphonomic Implications in Forensic Anthropology”; Clark, Worrell, and Pless, “Postmortem changes in Soft Tissue”; Haglund, Connor, and Scott, “Archaeologists as Forensic Investigators: Defining the Role.”

⁸² Orsos, “Posmortale Decalcination, Caries, und Pseudocallusbildung.” 47-53.

⁸³ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Fritz von Herff), Vol. 5, 1492.

forester concluded, in early 1940, when the Soviet Army was still in control of Smolensk, and with it the Katyn Forest and the graves.⁸⁴

Later that evening, the group of international doctors gathered to draft a report on their findings and conclusions. The discussion about what to include, Orsos testified later, lasted long into the night. According to the Hungarian, there were no material discrepancies or differences of opinion on the basic facts, but the doctors did disagree about how detailed and how speculative the report should be. In particular, they disagreed on how far the report should go in stating the age of the graves, and, in doing so, taking a stand on who committed the murders. When they finished, the Hungarian doctor testified, it was closing in on 3 in the morning. While the rest of the group retired to the mess hall to eat a long-delayed dinner, the Hungarian doctor stayed behind with a German transcriptionist and dictated the exact wording of the report the group had agreed upon. In the early hours of the morning, the transcriptionist read the text of the report out loud in the mess hall.⁸⁵ There were, the Hungarian doctor testified, no objections.⁸⁶

The final report was a sparsely worded, an unadorned rundown of the facts the international commission of doctors found in the Katyn Forest graves. Cause of death: without exception, a bullet wound in the head from pistol rounds of less than 8mm, held by a practiced hand. Condition of the corpses varied from mummified to saponified, depending on their location in each grave. In addition to bodies, the doctors noted that the graves contained a huge quantity of documents, pieces of paper that played a more prominent role in their conclusion than the bodies themselves. The second to last sentence of the report read, “From the statements of witnesses, letters, diaries, newspapers, etc. found on the corpses, it is concluded that the shootings took place in the months of March and April 1940.”⁸⁷

At dawn the next morning, a German military bus picked up the international doctors and drove them back to the Smolensk airfield, where they boarded planes for the flight back to Berlin. This time, their refueling stop was at a military airbase in the Polish city of Bialystok. The doctors remembered later that, as the group ate breakfast, a military plane caught up with the group, and a German officer stepped off with a stack of mimeographed copies of the report they had agreed upon the night before. These were passed around the group, and each doctor read the report carefully before signing the back page of each copy. Several of the doctors would later confirm that, even as they read their findings in the light of day, no one offered any objection.⁸⁸ Once everyone

⁸⁴ This episode with the tree rings is enlightening as to German aims with the Katyn exhumation. Unless an observer were to claim that the Nazis came along and somehow dug graves around and beneath them without disturbing the trees, the tree rings showed that the Soviets were the likely murderers. But the very fact that the Germans thought the tree ring evidence was insufficient—insufficient enough to bring in international teams of forensic experts when their own foresters already stationed in Katyn could give them the answer they were looking for—gives great insight into the importance of an international and scientific investigation for the optics and reception of the information recovered by the investigation. If the Nazi government was really just out to prove that the Soviets killed the men at Katyn, then he could have started and ended his investigation with the science of tree rings.

⁸⁵ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Dr. Ferenc Orsos), Vol. 5, 1600.

⁸⁶ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Dr. Ferenc Orsos), Vol. 5, 1600.

⁸⁷ “Protocol of the International Medical Commission,” reproduced in “The Katyn Forest Massacre: hearings before the Select Committee,” Vol. 5, 1395.

⁸⁸ In particular, the Swiss doctor Naville recalled standing next to the Bulgarian Dr. Markov, who would later recant his testimony and claim that the Germans had forced him to sign the report, as they signed the protocols. Markov, Naville

had signed every copy, they were once again distributed among the group, so each doctor received a copy containing all twelve signatures. The Germans retained several signed copies as well. Then they got back on the planes, and continued their westward journey towards Berlin.

Exhumations had been underway for about six weeks when the international forensic scientists left the gravesite at the end of April 1943, and they would continue for another five. Yet Goebbels' interest in the Katyn Forest gravesite started to wane in the days after their departure. The Propaganda Minister dropped the subject from his daily briefings of the press and of his ministers in the first two weeks of May.⁸⁹ For the German and Polish forensic scientists who continued to work at the grave after the departure of the international doctors, it was a relief when the spotlight turned elsewhere. But as Berlin's attention turned away from the Katyn Forest graves, the German military officials overseeing the grave became somewhat less accommodating, increasingly impatient, and even "obstructionist," as Polish doctor is quoted in the final report of Poland's Committee of Enquiry into the Katyn Forest graves. By mid-May, a German military official flatly refused to provide a pump to help clear one of the graves, which was waterlogged, leaving human remains floating muddy water that the Russian workers refused to enter to retrieve bodies.⁹⁰

As the month of May wore down, the German and Polish forensic reports both speak of deteriorating working conditions at the graves. As the temperatures started to climb, the now-exposed bodies of the Polish officers started to decompose in earnest, magnifying the smell and attracting hordes of flies. Buhtz wrote in his report that the corpses posed a health risk for the doctors, the military, and for the local population.⁹¹ That the graves would have to be abandoned in the heat of summer was an eventuality the German Foreign Office had planned for at the outset. An April-dated memo noted, "fear of epidemic" would force the graves' closure as soon as the weather turned hot.⁹² The German forensic team decided to close the graves for good on June 3.⁹³ By June 6th, nothing was left in the clearing except the dirt mounds over the reburial sites, and white crosses that marked them.⁹⁴ The Germans left with plans to reopen them in the fall, when the weather

remembered, made no mention of objecting to the protocol. "The Katyn Forest Massacre: hearings before the Select Committee," (Testimony of Dr. Francois Naville), Vol. 5, 1612.

⁸⁹ "Protokolle von Pressekonferenzen Goebbels' als Reichsminister für Volksaufklärung und Propaganda und Weisungen des Ministers," BArch N 118/00138; "Tagebuch des Joseph Goebbels," BArch N 118/54.

⁹⁰ "Committee of Inquiry into the Question of the Polish Prisoners of War from 1939 Campaign missing in the USSR, London, January 25, 1950," 45, NARA CP RG 59 General Records of the Department of State, Central Decimal File 1950-54 646C.002/10-652 to 648.6126/8-2550.

⁹¹ *Amtliches Material zum Massenmord von Katyn*, 92. Dead bodies do not actually spread disease or cause epidemics as Dr. Buhtz believed in Katyn, although this myth is still popularly believed today. Viruses and other infections cannot survive longer than 48 hours after death. Bodies killed by unnatural causes, such as the officers at Katyn, largely don't carry diseases, and therefore pose no risk of spreading them. The decomposing body itself poses no risk of disease, although fecal matter from corpses submerged in water can cause intestinal distress if the water is consumed (as would fecal matter from live humans). See Chapter 3 in Morgan, Tidball-Binz, and Van Alphen, *Management of dead bodies*.

⁹² "Betriefft: Auffindung von Massengräber von ermordeter polnischer Offiziere," reproduced in "The Katyn Forest Massacre: hearings before the Select Committee," (Testimony of Dr. Francois Naville), Vol. 5, 1346.

⁹³ "Protokolle und die Obduktionsbefunde des deutschen Gerichtsarztes," in *Amtliches Material zum Massenmord von Katyn*.

⁹⁴ "Committee of Inquiry into the Question of the Polish Prisoners of War from 1939 Campaign missing in the USSR, London, January 25, 1950," NARA CP RG 59 General Records of the Department of State, Central Decimal File 1950-54 646C.002/10-652 to 648.6126/8-2550.

turned cooler once more.⁹⁵ That would never happen. By the time the cooler weather returned that fall, the graves were back under Soviet control.

But the Germans did not leave everything behind. Before they left, representatives of the German Army gave the Polish Red Cross “all of the material discovered on the dead bodies, such as notebooks, passports, personal papers, personal property such as rings, bracelets, watches, [and] wallets” to the Polish Red Cross. The Polish doctors packed all of the material evidence from the graves, much of it so covered with enough bodily fluid that it was impossible to read, into fourteen large wooden crates, each five feet long, two feet wide, and two feet deep. The crates were shipped to Krakow on June 6th, the same day the final forensic scientists left the Katyn Forest.⁹⁶

The crates contained large envelopes bearing numbers that each corresponded to a number tag attached to a body that was left behind, below the Katyn Forest floor. Many of those envelopes contained identifying information—identity cards or diaries, postcards, or letters in readable condition that contained full names or addresses. In these cases, the German and Polish teams had already confidently attached the number on the envelope to the name of a missing Polish officer. Most of the envelopes, however, remained nameless, either containing nothing specific enough to identify the man from whose pockets the personal effects came, or were so corrupted by fluids and covered in a thick layer of waxy body fat as to be unreadable.

In Krakow, the crates were placed in the custody of Dr. Werner Beck, the German-appointed Director of the State Institute of Forensic Medicine in the *Generalgouvernement*, the German-occupied former Polish nation.⁹⁷ In two statements to American investigators in 1946 and 1952, Beck said that the documents were handled with care and respect, with an eye to their importance for Polish history and for international justice. The crates were stacked in a storage room in the chemical division of the forensics institute, where a team of forensic chemical specialists and lab technicians began the painstaking process of searching through them for identifying information. They opened each envelope, being careful to keep its contents separate from the others.⁹⁸ The chemical specialists cleaned the waxy fat, dirt, and bodily fluids from each item, and applied a chemical solution to faded documents that partially restored the ink.⁹⁹ Over the next six months, nearly three hundred envelopes, representing the personal belongings of three hundred men, were cleaned and preserved.¹⁰⁰

But the turning of the tides of war did not allow the work to be completed.¹⁰¹ The 1943 autumn and winter campaigning season on the Eastern Front was disastrous for the German Army. The Soviets advanced over five hundred miles west, retaining the cities of Odessa, Smolensk, Leningrad, and Novgorod, and it looked like the Soviet advance would continue. In the early spring

⁹⁵ “Protokolle und die Obduktionsbefunde des deutschen Gerichtsarztes,” in *Amtliches Material zum Massenmord von Katyn*.

⁹⁶ “Protokolle und die Obduktionsbefunde des deutschen Gerichtsarztes,” in *Amtliches Material zum Massenmord von Katyn*.

⁹⁷ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Dr. Werner Beck,) Congressional Hearing, Vol. 5, 1513

⁹⁸ “Occupied Germany, British Zone, Consulate General of the United States of America: Deposition of Prof. Dr. Werner Beck,” BArch ZsG 111 Sammlung Epsteins/32, 26-27.

⁹⁹ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Dr. Werner Beck,) Congressional Hearing, Vol. 5, 1513-14.

¹⁰⁰ Cienciala, Lebedeva, and Materski, *Katyn*, 223.

¹⁰¹ Cienciala, Lebedeva, and Materski, *Katyn*, 223.

of 1944, Beck received an order from the Commander of the Security Police in the *Generalgouvernement*. “All of the kept documents,” Beck told American investigators after the war, “including personal property originating from Katyn should be destroyed altogether in one lump, lest they fall into the hands of the Russians.”¹⁰² Perhaps the Germans feared that the Soviets gaining control over the Katyn documents gave them control over the story—control that would obscure German innocence forever. But Beck refused to comply. He told American investigators after the war that it was his view that the documents “should be kept for the benefit of the Polish nation.”¹⁰³

Like Buhtz, the German doctor in charge of the Katyn Forest gravesite, Beck presents a complicated ethical puzzle. In the mid-1930s, Beck was a *Strumbahnführer* in the Nazi paramilitary, the SA. There are allegations that Beck, as head of the Forensic Institute in Krakow, knowingly used bodies from the nearby concentration camp in Plazow in his research at the forensic institute, as well as bodies of Jews collected from the city’s ghetto. In the post-war accounts of the men who worked for him at the Krakow Forensic Institute, Beck was said to have humiliated, threatened, and tortured his Polish employees.¹⁰⁴ Yet in his statements to American investigators, Beck presented himself as a man concerned with both science and justice.

When the crates of documents were threatened with either burning or capture, Beck hatched a series of plans to save the crates. First, he recruited “reliable Poles” to keep documents in their homes; this proved futile because, as Beck recalled, “such a stench emanated from these documents that they could not be kept in private homes.”¹⁰⁵ Beck then negotiated with the Gestapo for permission to transfer the documents about 150 miles west, to the Forensic Institute at the University of Breslau. All of the envelopes were stacked back into the fourteen wooden crates bearing labels to make them seem less interesting than they were: “Krakow—Institute—Library.”¹⁰⁶ Beck told the American investigators that he and his assistants made the trip to Breslau “time and again” to work with the documents, treating and reading them, and assign names to numbered

¹⁰² “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Dr. Werner Beck,) Congressional Hearing, Vol. 5, 1515.

¹⁰³ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Dr. Werner Beck,) Congressional Hearing, Vol. 5, 1515.

¹⁰⁴ Herber, *Gerichtsmedizin*, 124.; Klee, *Personenlexikon*, 34.

¹⁰⁵ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Dr. Werner Beck,) Congressional Hearing, Vol. 5, 1515.

¹⁰⁶ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Dr. Werner Beck,) Congressional Hearing, Vol. 5, 1515. In the decades since, a small number of documents have turned up that never made the trip out of Krakow. When the crates of documents were moved from Krakow to Breslau, they left behind an envelope that contained transcribed copies of diaries found among the Katyn documents. Stanislaw Grygiel, a worker at the Institute of Forensic Medicine, hid the packet in the summer of 1944, and told no one that it existed. When the institute underwent renovation in 1991, construction workers found the envelope. Other documents that also escaped the trip to Breslau were hidden in the Krakow City Archives by a staff member, Dr. Henryk Munch. After the war, the Soviet-run Polish Security Police arrested Munch, and forced the director of the archive, a Dr. Marian Freidberg, to comb through the archive to find anything related to Katyn. As it turned out, this wasn’t terribly hard. Tipped off by their smell, Dr. Friedberg located a thick package of documents behind a large cupboard, still in their original numbered envelopes. The Security Police took possession of these documents in November 1953. But the envelopes were simply filed in the Ministry of Internal Affairs in Warsaw, where they were kept for the next 50 years without anyone in the Polish government ever reporting their existence to the Soviet powers that be in Moscow. Cienciala, Lebedeva, and Materski, *Katyn*, 225.

envelopes.¹⁰⁷ By early 1945, however, Breslau, on Poland's western border, no longer seemed safe from the advancing red army.

After the Soviets took Krakow, Beck rushed to Breslau. He told the American investigations that his plan was simple: keep the documents out of Soviet hands by turning them over to the International Red Cross. He knew of only one ICRC headquarters in the region: in Prague, 150 miles southwest of Breslau. In the end-of-war chaos of April 1945, Beck told American investigators, he could not find a truck to spare or a driver willing to head *east*, toward the Soviet advance. Beck decided to take the crates halfway to Prague, to the town of Radebuel, just outside of Dresden, where his parents lived.¹⁰⁸

In Radebeul time ran short, and Beck again could not locate a truck or a driver to take him and the crates the ninety miles further to Prague—the situation in the Czechoslovak capitol hardly encouraged one to head that way—so Beck decided to go alone to notify the ICRC of the documents' existence. He put the crates in a storeroom of the Radebeul train station, and leaving a station agent with specific instructions: if the Red Army were to enter the town, he should follow the original German order to burn all of the documents rather than let them fall into Soviet hands.¹⁰⁹

The station agent acted exactly as Buhtz instructed him to. He sprayed the crates with gasoline and lit a match, and let the letters, military cards, photographs, and diaries of the victims of the massacre in the Katyn Forest went up in flames.¹¹⁰ Beck told the Americans that his father saw the aftermath of the fire, and confirmed for him that the documents were destroyed. The doctor fled for the American zone out of fear that the Soviet search for the Katyn documents would eventually lead them to him.¹¹¹ His fears were confirmed when Soviet agents arrived at his parents' house, turned it upside down, and seized Beck's notebooks, papers, and articles, anything related to his forensic work. Thanks in part to friends, who told the Soviet agents tracking him that he had been killed, Beck made it to the American zone and was able to make the 1946 deposition about his role with the Katyn Forest documents. His mother, however, was not so lucky: the 62-year-old woman was picked up at her home, and held for six months, interrogated daily about her son's address. The station agent who set fire to the documents, Beck told the American investigators, likely only met a sorrier fate. He was deported east, and the German doctor never heard from him again.¹¹²

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¹⁰⁷ "The Katyn Forest Massacre: hearings before the Select Committee," (Testimony of Dr. Werner Beck,) Congressional Hearing, Vol. 5, 1515.

¹⁰⁸ "The Katyn Forest Massacre: hearings before the Select Committee," (Testimony of Dr. Werner Beck,) Congressional Hearing, Vol. 5, 1516.

¹⁰⁹ "Occupied Germany, British Zone, Consulate General of the United States of America: Deposition of Prof. Dr. Werner Beck," BArch ZsG 111 Sammlung Epsteins/32, 28; "The Katyn Forest Massacre: hearings before the Select Committee," (Testimony of Dr. Werner Beck,) Congressional Hearing, Vol. 5, 1515.

¹¹⁰ "Occupied Germany, British Zone, Consulate General of the United States of America: Deposition of Prof. Dr. Werner Beck," BArch ZsG 111 Sammlung Epsteins/32, 28.

¹¹¹ "Occupied Germany, British Zone, Consulate General of the United States of America: Deposition of Prof. Dr. Werner Beck," BArch ZsG 111 Sammlung Epsteins/32, 28.

¹¹² "Occupied Germany, British Zone, Consulate General of the United States of America: Deposition of Prof. Dr. Werner Beck," BArch ZsG 111 Sammlung Epsteins/32, 28.

THE STORY OF the Katyn Forest graves did not end in the flames that consumed the crates of documents. Its aftermath, the subject of the next chapter, stretches into the twenty-first century, and includes a cameo at Nuremberg, a U.S. Congressional investigation, and decades of animosity and suspicion over the officers' deaths between Poland and the Soviet Union, now between Poland and Russia. In each of these trials, investigations, or debates, the forensic component—the physical bodies of the officers and the act of digging them up—figured prominently in attempts to sort out what happened to the Polish officers found there; when they were killed, and at whose hands. The doctors who performed the exhumations and post-mortem examinations were often central to these efforts, asked to provide investigators with scientific facts to cut through the dense fog of bias and skepticism that otherwise surrounded Nazi claims and Soviet counterclaims about the origins of the grave. And with the exception of Orsos' pseudocallus theory—which, as far as I can tell, entirely failed to gain traction anywhere beyond the Hungarian doctor's own work and has since receded into the realm of wacky science—the forensic methods used by the German, Polish, and international forensic teams, the facts they found, and the conclusions they came to have stood up to decades of scrutiny.

To pass the Katyn Forest Exhumation off as propaganda is not only to dismiss what appears to have been a path-breaking scientific endeavor, it is also, arguably, a misuse of the very term “propaganda.” The decision to undertake the exhumation was motivated by a desire to discredit the Soviets on a world stage; had Goebbels suspected that the graves were the result of an Italian-led massacre, for example, they likely would never have been opened. In this sense, there *was* bias driving the German story about the Katyn Forest graves. Yet the story itself was not biased or misleading; what the Nazis accused the Soviets of was something that the Soviets had done: execute 5,000 Polish officers. The official German report on the exhumation presented results that squared with what the Polish and international teams of scientists also found: that is, not a biased or misleading account, but a largely factual one. This chapter presented the story of the scientists who converged in the Katyn Forest to argue for a reframing of the exhumation, from a dismissible propaganda stunt to a path-breaking scientific achievement: the first pathologist-led exhumation of a mass grave, and the first use of forensic science to investigate a large scale crime.

It is this latter piece that makes it possible to talk about the Katyn Forest exhumation as part of the larger history of human rights. The exhumation in the Katyn Forest cannot be considered a human rights investigation because the concept of “human rights” had not yet solidified enough to be something that could be violated. That codification was the product of the latter decades of the twentieth century. Investigations into the physical aftermath of those violations came still later, in the 1980s search for *Desaparecidos* in Argentina, Chile, Guatemala, and elsewhere in Latin America.

But there is an argument to be made that a line can be drawn from those exhumations in the 1980s backwards to the Katyn Forest. Not only do the forensic scientist in the 1980s recognize Katyn as a precursor to their work—thereby drawing the line themselves—the ways in which the forensic scientists in the Katyn Forest understood and conceptualized their work was not dissimilar. The language and content of the German doctor Buhtz's forensic report, as well as its counterparts from the Polish Red Cross and the international commission of doctors, contain nothing that would

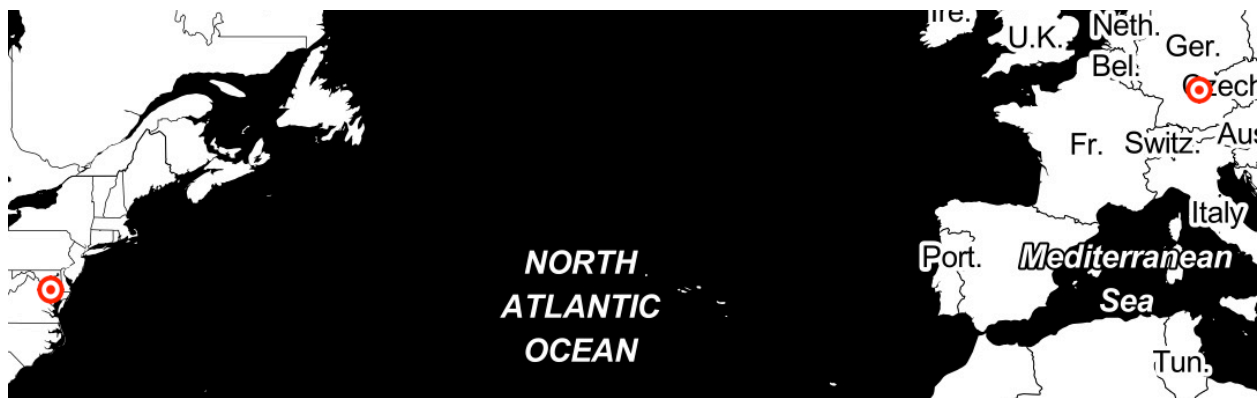
be out of place in a contemporary report about a forensic human rights investigation: observations of the gravesite, descriptions of the delicate project of removing bodies from the grave, and findings from their post-mortem examinations, such as injuries and cause and manner of death. These reports demonstrate similar understandings on the part of the doctors about their role at the gravesites where they work: as scientists tasked with gathering facts from and about the graves.

Beyond the similarities between the forensic doctors at Katyn and the scientists who took part in later human rights investigations in terms of what they did, there were similarities as well in motivation; why they did it. After the war, the Swiss doctor, Naville, found himself forced to defend those motivations publicly. In the fall of 1946, a member of the Swiss Grand Council from the left-leaning Labor party publicly accused Naville of being a Nazi collaborator, of taking German gold in exchange for lying about what he had seen at the gravesite. Naville was ordered to present a written statement in his defense to the Swiss Council of state. The head of Geneva's Cantonal Government, Albert Picot, took up Naville's defense, and read excerpts from the doctor's statement before the Council. It is the duty of forensic scientists, Naville had written, "to seek above all to serve the truth in conflicts where the parties sometimes serve other masters. It is the tradition and pride of our profession, an honor sometimes dangerous. We must do this without yielding to pressure, [...] without regard for the criticism and hostility of those who may be put into an awkward position by our unbiased impartiality."¹¹³ Naville did not use the language of human rights to describe his work, but his understanding of the scientists' role in such an investigation—to be a bulwark of "unbiased impartiality" in the face of "parties serving other masters"—is not far from the self-conception expressed by forensic scientists in later decades, who did use the language of human rights. Although it is perhaps uncomfortable to view a Nazi-led investigation as such, it was a gesture toward international oversight of these kinds of crimes; perhaps a product of the same understanding that drove Nuremberg—that involvement of the international community was both appropriate and helpful in the investigation of a war crime.

¹¹³ Reproduced in Abarinov, *Murderers of Katyn*, 217.

CHAPTER 2

After Katyn, 1944-1952



ON THE AFTERNOON of January 21, 1943, nineteen people met on the windy and cold platform of Moscow's *Belarusskaya* train station to await a specially arranged 4pm train. All but one were foreign journalists, the English-speaking ones from the *Associated Press*, the *New York Times*, Reuters, the *Toronto Star*, the *United Press*, and *News Chronicle*; joining them were Czech, Polish, and Spanish newspapermen.¹¹⁴ The group's nineteenth member, the only woman, was the real star: Kathleen Harriman, the 25 year-old daughter of the US Ambassador to the Soviet Union, W. Averell Harriman. Harriman was an adventurer and a sportswoman as much as she was a lady of society: an expert skier and equestrienne, who rode a pair of majestic military horses given to her as a personal

¹¹⁴ "Day in the Forest," *Time Magazine*, February 7, 1944.

gift from Stalin.¹¹⁵ With her wide smile and dark curls, Harriman charmed both the official Soviet hosts and her traveling companions as they ate, laughed, and played cards on their journey west, toward Smolensk and toward the Katyn Forest.¹¹⁶

About two hundred and fifty miles to the west of Moscow's *Belarusskaya* platform, another group was gathered in the January cold in a clearing in the Katyn Forest, around the graves the German, Polish, and international doctors had exhumed and then closed the previous spring. This group, all Soviet doctors, worked at a breakneck pace, hoping to do in a week what the German-led team had failed to complete in three months: open the graves, perform post-mortem examinations to determine cause of death, and count the number of bodies at rest in the Katyn Forest. The difficulty of doing so was far higher than it was for the Germans, because the Soviet forensic team had not been allowed to wait for the ground to thaw. Workers chipped away at the frozen earth, slowly exposing the Polish officers' bodies once again. They looked considerably worse: after exposure to heat and flies the previous summer, and then reburial in a wet and slowly-freezing environment throughout the fall and winter had left them mildewed and more decomposed than they were when the Germans had found them just under a year before.¹¹⁷

The train carrying Kathleen Harriman and the 18 other visitors pulled into the station in Smolensk early in the morning of January 22, after a pleasant evening of card games, caviar, and champagne.¹¹⁸ The journalists had been invited to report on the Soviet forensic investigation into the graves; an investigation, the Soviet government claimed, whose purpose was to correct various errors and fabrications from the German exhumation, namely, its conclusion that the Soviets were responsible for killing the Polish officers and creating the Katyn Forest graves. Moscow had denied responsibility since the first German announcement of their existence;¹¹⁹ the exhumation would provide scientific facts—or “facts,” as they were to be—in support of Soviet innocence, and to rebut the conclusions of the German-led forensic effort.

Dr. Nicolai Ilych Burdenko was appointed by Stalin to lead the exhumation, which, in his honor, was referred to as the Burdenko Commission. Burdenko was a professor at the Medical Institute at the central Russian Voronezh University; he also served as Stalin's personal physician.¹²⁰

¹¹⁵ “Kathleen Mortimer, Rich and Adventurous, Dies at 93.” *New York Times*, February 20, 2011.

¹¹⁶ “Trip to Smolensk and the Katyn Forest, January 21-23, 1944,” NARA CP RG 59 Records of the Department of State, Central Decimal File Decimal 740.00116 European War: World War II: Illegal and Inhumane Warfare in Europe 1940-44 740.00116 E.W. 1939/1355 to 740.00116 E.W. 1939/12-2943.

¹¹⁷ “The Special Commission for Ascertaining and Investigating the Circumstances of the Shooting of Polish Officer Prisoners by the German-Fascist Invaders in the Katyn Forest,” reproduced in “The Katyn Forest Massacre: hearings before the Select Committee,” Vol. 3, 245.

¹¹⁸ “Day in the Forest,” *Time Magazine*, February 7, 1944.

¹¹⁹ According to a Summary Report of an internal investigation into the Katyn Forest Massacre done by the U. S. Army Counter-Intelligence Corps in May 1948, the first Soviet reaction to the German report was to call the bodies “archaeological remains.” This statement was made on 16 April 1943, four days after the German announcement. On 26 April 1943, the story changed, but the denial remained: Foreign Minister Molotov, in a statement to Polish representatives in Kuibyschew, accepted the discovery of the Katyn Forest graves as authentic, but accused the Germans of having perpetrated the massacre themselves. “Headquarters Sub-Region Nurnberg, Counter-Intelligence Corps Region VI, ‘Summary Report of Investigation Subject Katyn Forest Murders,’ 12 May 1948,” NARA CP RG 59 Records of the Department of State, Records Relating to Poland, Officer in Charge Polish, Baltic, and Czechoslovak Affairs, 1949-1952.

¹²⁰ Etkind, Finnin, Blacker, Fedor, Lewis, Mälksoo, and Mroz, *Remembering Katyn*, 3.

If the title Moscow bestowed upon the group—“The Special Commission for Ascertaining and Investigating the Circumstances of the Shooting of Polish Officer Prisoners by the German-Fascist Invaders in the Katyn Forest”—did not cast doubt on its objective stance, the group’s composition did. Where the Germans made a good-faith effort to involve scientists from a variety of backgrounds and nationalities, the Soviet commission was comprised entirely of doctors who were both ethnic Russians and Soviet citizens, and led by the man personally responsible for Stalin’s health.¹²¹ The only international witnesses to the Soviet-led exhumation were Harriman and the foreign journalists—international to be sure, but with no forensic knowledge to speak of.

Some of the journalists, like NBC’s Henry Cassidy, were seasoned correspondents; for others, Harriman included, watching workers pull frozen, mildewed corpses out of the graves was an entirely new experience. “Somehow, I didn’t envy them!” Harriman quipped in a letter she wrote to Pamela Churchill, the British Prime Minister’s daughter-in-law, when she returned to Moscow. Still, she observed the work of the doctors with interest. A “big Soviet doctor who looked like a chef in a white peaked cap, white apron, and rubber gloves” led the group on a tour of the gravesite, she wrote to Churchill, and showed them “with relish [...] a sliced Polish brain carefully placed on a dinner plate for inspection purposes.”¹²² Harriman and the others followed the doctor around each of the re-opened graves. “We must have seen a good many thousand corpses or parts of corpses, all in varying degrees of decomposition,” she told Churchill. In parentheses, she added, “Luckily I had a cold, so was less bothered by the stench than others.”¹²³

Then the group headed into what Harriman noted was a “hot and stuffy” autopsy tent, where several Soviet doctors were in the middle of post-mortem examinations. “Personally,” Harriman wrote in her letter, “I was amazed at how whole the corpses were. Most still had hair.”¹²⁴ The seemingly good condition of the bodies made an impression on Harriman and the others, and went a long way toward convincing them that the Soviet story was the true one—that the men could not have been buried for three years, and that therefore the Germans must have killed them more recently. “Even I,” wrote Harriman, “could recognize their internal organs, and they still had a good quantity of red colored ‘firm’ meat on their thighs.” Most convincing, though, were the dated papers the Soviet doctors produced, supposedly from the Polish officers’ pockets. “Though the Germans had ripped open the Poles’ pockets, they’d missed some written documents,” she reported to

¹²¹ “The Special Commission for Ascertaining and Investigating the Circumstances of the Shooting of Polish Officer Prisoners by the German-Fascist Invaders in the Katyn Forest,” reproduced in “The Katyn Forest Massacre: hearings before the Select Committee,” Vol. 3, 228.

¹²² “Kathleen Harriman to Pamela Churchill and Mary Harriman, January 28, 1943,” Kathleen Harriman, *Wartime Correspondence, 1943–1946*; Pamela Harriman Papers; Library of Congress Manuscript Division; see also Geoffrey Roberts, “The Wartime Correspondence of Kathleen Harriman,” *Harriman Magazine*, Winter 2015.

¹²³ “Kathleen Harriman to Pamela Churchill and Mary Harriman, January 28, 1943,” Kathleen Harriman, *Wartime Correspondence, 1943–1946*; Pamela Harriman Papers; Library of Congress Manuscript Division; see also Geoffrey Roberts, “The Wartime Correspondence of Kathleen Harriman,” *Harriman Magazine*, Winter 2015.

¹²⁴ “Kathleen Harriman to Pamela Churchill and Mary Harriman, January 28, 1943,” Kathleen Harriman, *Wartime Correspondence, 1943–1946*; Pamela Harriman Papers; Library of Congress Manuscript Division; see also Geoffrey Roberts, “The Wartime Correspondence of Kathleen Harriman,” *Harriman Magazine*, Winter 2015.

Churchill. “While I was watching, they found one letter dated the summer of ‘41.” That was, she added, “damned good evidence.”¹²⁵

After their tour of the graves, the group of foreigners loaded back into the cars and drove back to the military headquarters in Smolensk. There, the Soviets treated the visitors to a panel of locals, supposed witnesses. John Melby, Ambassador Harriman’s third secretary and the chosen representative to chaperone his daughter to the Katyn Forest, described the witnesses’ statements to the group in a State Department report written after he returned to Moscow. One by one, the witnesses told their stories: each of them said the Polish officers were very much alive when the Germans entered the region in the summer of 1941, and that they were dispatched shortly thereafter, in August, by German firing squads. They knew, they said, because the Germans set up a guarded and fenced-off area in the Katyn forest, but the sound of gunfire could be heard from afar. The witnesses’ remembrances were somewhat less convincing than the graves and the bodies had been. Melby remarked in his report that they were “glibly given, as if by rote.”¹²⁶ The group of reporters and diplomats were not allowed to ask questions of the locals, and Soviet officials hustled them out of the room. After they left, Melby observed that the atmosphere in the room “grew progressively tense” as the journalists asked questions, many of which expressed skepticism about the official Soviet story. One in particular, Melby recorded in his report, hit a nerve. “If the men were killed in August, as you say,” one of the journalists asked, “then why are they all wearing winter clothing?”¹²⁷

The room plunged into an uncomfortable silence, Melby recalled. The Soviet officials went into a huddle, whispering in hushed voices. Finally, the translator explained: “The weather in Katyn is so variable,” he explained, “that in August people often wear winter clothing.”¹²⁸ This answer was not terribly convincing—average temperatures in the Smolensk region are in the 60-degree range in August¹²⁹—and it was also the last one the Soviet hosts would answer. Melby recalled that the translator announced then that the train back to Moscow would leave in an hour, an unplanned midnight departure, as the journalists had expected to spend the night in Smolensk.¹³⁰

Despite the skeptical questioning Melby recorded in his report to the State Department, statements from the visitors did little to contradict the Soviet story. Harriman breezily viewed the whole trip as an adventure, and accepted the Soviet version of events. In her letters to Pamela Churchill, Kathleen Harriman recalled that the trip had been “on the gruesome side but most interesting and I thoroughly enjoyed it—and the chance to see some countryside other than

¹²⁵ “Kathleen Harriman to Pamela Churchill and Mary Harriman, January 28, 1943,” Kathleen Harriman, *Wartime Correspondence, 1943–1946*; Pamela Harriman Papers; Library of Congress Manuscript Division; see also Geoffrey Roberts, “The Wartime Correspondence of Kathleen Harriman,” *Harriman Magazine*, Winter 2015.

¹²⁶ “Trip to Smolensk and the Katyn Forest, January 21–23, 1944,” NARA CP RG 59 Records of the Department of State, Central Decimal File 1940-44 740.0016 E.W. 1939/1355 to 740.00116 E.W. 1939/12-2943.

¹²⁷ “Trip to Smolensk and the Katyn Forest, January 21–23, 1944,” NARA CP RG 59 Records of the Department of State, Central Decimal File 1940-44 740.0016 E.W. 1939/1355 to 740.00116 E.W. 1939/12-2943.

¹²⁸ “Trip to Smolensk and the Katyn Forest, January 21–23, 1944,” NARA CP RG 59 Records of the Department of State, Central Decimal File 1940-44 740.0016 E.W. 1939/1355 to 740.00116 E.W. 1939/12-2943.

¹²⁹ “Average Temperature of the Air in August,” BArch ZsG 111 Sammlung Epsteins/16.

¹³⁰ “The Mass Murder of Polish Prisoners of War in Katyn,” 19. NARA CP RG 59 Records of the Department of State, Records Relating to Poland, Officer in Charge Polish, Baltic, and Czechoslovak Affairs, 1949-1952.

Moscow for a change.”¹³¹ Melby reported to the Ambassador and to the State Department that he was convinced by the Soviets’ basic claim: the Nazis committed the murders, and buried the bodies in the Katyn Forest.¹³²

* * *

DESPITE THE EVIDENCE collected from the Katyn Forest graves during the two and a half months they were open in the summer of 1943, and despite the unanimous conclusions of the German, Polish, and international forensic scientists who worked at the grave that the Soviets were responsible for the massacre, the Nazi-led exhumation was hardly the last word on the Polish officers’ deaths. The Katyn Forest graves would have at least three distinct afterlives in the decade that followed. During those ten years, the facts of the Katyn case were put on trial: once in the court of public opinion, following the 1944 Soviet-led exhumation that opened this chapter; once before the panel of Allied judges at the Nuremberg International Military Tribunal; and, finally, in front of a year-long series of hearings held by members of the US Congress intended to determine, once and for all, who was responsible for the Polish officers deaths.

The story told in this chapter is where the Katyn Forest exhumation links up more explicitly with an early history of the investigation and prosecution of international crimes. First, the Soviet exhumation of the Katyn Forest graves, in doing everything “wrong”—that is, in assembling a team of only Soviet doctors rather than an international team, in doing an uncaredful and rushed job, and, most grievously, in knowingly performing bad science, fabricating their results—highlights how many things the Nazi-led exhumation did “right,” at least in the sense that they have remained practices common to forensic investigations into these kinds of large scale crimes. An examination of the Soviet exhumation, such as the one in this chapter, shows the historical reader how easy it would have been for the Nazi government to undertake a similar, slapdash and largely-or-in-part fabricated investigation. And yet they did not, choosing instead a drawn out, likely expensive, careful one, flying in international scientists, inviting international oversight, and insisting on careful scientific methods. The contrast between the German and Soviet exhumations of the Katyn Forest graves serves to highlight similarities between the work the German-led team undertook in 1943 and the exhumations that feature later in this story, exhumations explicitly done under the auspices of international criminal or human rights investigations.

In the immediate post-war period, the Katyn Forest graves featured in the next development in international criminal investigations and prosecutions: the Nuremberg International Military

¹³¹ “Kathleen to Elsie Marshall, January 24, 1944,” in Geoffrey Roberts, “The Wartime Correspondence of Kathleen Harriman,” *Harriman Magazine*, Winter 2015.

¹³² This is reflected in John Melby’s report of the visit, “Trip to Smolensk and the Katyn Forest, January 21-23, 1944” (NARA CP RG 59 Records of the Department of State, Central Decimal File 1940-44 740.00116 E.W. 1939/1355 to 740.00116 E.W. 1939/12/2943), as well as in Kathleen Harriman’s letters after the visit (“Kathleen Harriman to Pamela Churchill and Mary Harriman, January 28, 1943,” Kathleen Harriman, *Wartime Correspondence, 1943–1946*; Pamela Harriman Papers; Library of Congress Manuscript Division).

Tribunal (IMT).¹³³ The Soviet prosecution included the murders in the charges against Hermann Göring, the highest-ranking Nazi official on trial, leading to a showdown between German and Soviet witnesses and forensic reports. The appearance of forensic evidence from the Katyn Forest at Nuremberg—the only use of forensic evidence in the prosecution of the Nazis’ highest ranking members—further allows for the investigation into Katyn to be seen in a trajectory that led to the human rights investigations and prosecutions in the latter decades of the twentieth century.

Forensic evidence from the Katyn Forest graves was anything but decisive at Nuremberg, in large part because the trial featured competing bodies of forensic evidence: that is, the German version of the forensic facts, and the Soviet version. A full assessment of the case came six years later, in 1952, in a series of hearings before a US Congressional “Select Committee to Investigate and Study the Facts, Evidence, and Circumstances of the Katyn Forest Massacre.” The committee heard evidence from six of the non-German doctors who participated in the exhumation, five from the international commission and one from the Polish Red Cross, and assembled what is still the world’s largest collection of documents, photographs, and statements on the Katyn Forest massacre. These hearings can be considered the final showdown over the facts about the Katyn Forest graves. They were also, in the words of the Congressman appointed as their Chairman, “the first time in the history of Congress where a committee has been organized or authorized to investigate an international crime committed beyond the borders of our own country.”¹³⁴ In its framing and self-understanding, this third revisiting of the Katyn Forest exhumation can be seen as a statement about the responsibility the US government had in cases of large-scale to investigate and assign blame for large scale crimes committed abroad.

Where the preceding chapter focused on the German exhumation of bodies from the Katyn Forest, this chapter turns its attention to the aftermath of the forensic investigation: these three public challenges and debates over what the facts of the case really were. In each of these investigations into the original Katyn Forest investigation, this chapter furthers the argument that Katyn can and should be seen as an early example in a historical trajectory of investigations and prosecutions of large scale crime, one that links it to later examples more explicitly in a human rights context.

* * *

THE SOVIET BURDENKO Commission’s final report was published in full in the Soviet state newspapers *Pravda* and *Izvestia* in late February 1944. Katyn, the Soviet report said, had been scientifically shown to be one more German crime.¹³⁵ This final report, however, had taken into account the challenge issued by a journalist at the gravesite in January: instead of August, this final

¹³³ For a recent overview of historiography on the Nuremberg Tribunal that considers how the understanding of the tribunal’s place in history has shifted in response to a resurgence of international criminal justice efforts in recent years, see Priemel and Stiller, eds., *Reassessing the Nuremberg Military Tribunals*.

¹³⁴ “The Katyn Forest Massacre: hearings before the Select Committee,” (Statement of Congressman Ray J. Madden), Vol. 3, 221.

¹³⁵ “The Special Commission for Ascertaining and Investigating the Circumstances of the Shooting of Polish Officer Prisoners by the German-Fascist Invaders in the Katyn Forest,” reproduced in “The Katyn Forest Massacre: hearings before the Select Committee,” Vol. 3, 245.

report reported that the Germans executed the Polish officers sometime between the much cooler months of September and December, 1941.¹³⁶

The Special Commission's conclusions are front and center in the Soviet report: two hundred meters from the Vitebysk highway in the Katyn Forest, twelve kilometers from Smolensk, they had located graves "in which Polish war prisoners shot by the German occupiers were buried."¹³⁷ The report goes on to detail the killings—cold-blooded massacres followed by "drunken orgies"¹³⁸—and the careful preparation of the bodies, so that when they dug them up later it would be possible, when they were uncovered eighteen months later, to claim the corpses were three years old and pin the murders on the Soviets. Before they buried the men, the report states, the Germans searched the officers' pockets and removed everything that carried dates later than the spring of 1940. Then they contracted with various locals, and paid them handsomely to come up with stories to tell the various international visitors.¹³⁹

The report is comparatively light, though, on the actual forensic facts found in the grave. In a report of some sixty-five pages, less than three of them were devoted to the results of the forensic exhumation. What little facts there were agreed with the German, Polish, and international forensic teams' conclusions on most of the important points: the cause of death for almost all of the bodies found was a single gunshot with a 7.65mm bullet to the back of the head. The Soviet report also concurs with the others in their assessments of the physical conditions in which they found the bodies: their states varied depending on their position in the grave, with those in the center considerably less decomposed than those on the sides. However, the reports differ markedly on the conclusions that could be drawn from those physical conditions. There were "absolutely no bodies," according to the Soviet forensic scientists, "in a condition of decay or decomposition" that suggested the bodies had been buried for the three years the Germans claimed. Burdenko's report also references letters and documents found in the officers' pockets—like the one Kathleen Harriman saw in the autopsy tent—that bore dates between November 12, 1940, and June 20, 1941, up to a year after the Germans claimed the men were dead. The pristine state of the bodies and the dates on the documents, the Soviet report asserted, meant that the Poles were killed long after the Red Army left the Smolensk area. Meanwhile, investigators fanned out into the local community and collected signed statements from supposed witnesses, all of whom supplied stories that supported

¹³⁶ "The Special Commission for Ascertainning and Investigating the Circumstances of the Shooting of Polish Officer Prisoners by the German-Fascist Invaders in the Katyn Forest," reproduced in "The Katyn Forest Massacre: hearings before the Select Committee," Vol. 3, 245.

¹³⁷ "The Special Commission for Ascertainning and Investigating the Circumstances of the Shooting of Polish Officer Prisoners by the German-Fascist Invaders in the Katyn Forest," reproduced in "The Katyn Forest Massacre: hearings before the Select Committee," Vol. 3, 225-306.

¹³⁸ "The Special Commission for Ascertainning and Investigating the Circumstances of the Shooting of Polish Officer Prisoners by the German-Fascist Invaders in the Katyn Forest," reproduced in "The Katyn Forest Massacre: hearings before the Select Committee," Vol. 3, 225-306.

¹³⁹ "The Special Commission for Ascertainning and Investigating the Circumstances of the Shooting of Polish Officer Prisoners by the German-Fascist Invaders in the Katyn Forest," reproduced in "The Katyn Forest Massacre: hearings before the Select Committee," Vol. 3, 245.

the official Soviet line: the Germans had shot the Polish officers shortly after their arrival in the Smolensk area.¹⁴⁰

Two and a half years after the Soviet exhumation, its leader, Burdenko, lay on his deathbed in Moscow. According to a secret investigation done by the Ideological Advisory Section of the Voice of America, the United States external broadcast institution, Burdenko admitted to a young man, the son of an old friend, that the Soviet exhumation of the Katyn Forest graves was totally faked. The doctor said he had gone to Katyn on “the personal order of Stalin.” When he got there, the facts were obvious to the doctor. “All [of the] bodies had been buried four years before. They died in 1940. For me, as a doctor, it was an obvious fact, which I couldn’t doubt.” The responsibility for the officers’ murders lay, the doctor confided in his friend’s son, “with our Soviet comrades in the NKVD.” The consequences of revealing that information, though, were clear to the doctor, according to the VOA report: imprisonment or death.¹⁴¹

The Soviet re-exhumation of the Katyn Forest graves, offers a stark contrast to the German one, Burdenko and the others on the Soviet commission of doctors who went to the gravesite in the Katyn Forest were not there to conduct a scientific investigation; rather they were there to appear as though they were conducting a scientific investigation. But where the Soviet commission created this veneer of a scientific exhumation and investigation—one that exploited public trust in the appearance of scientific inquiry but that was anything but scientific—the German investigation was an earnest, scientifically minded one, almost to an irrational extent. The investigation went far above what was needed for the purpose of finding facts that upheld their version of events, continuing to exhume and try to identify bodies up to two years after the Propaganda Minister lost interest in their existence. Even the German doctor Beck, by many accounts no Polish sympathizer, not only risked his life to protect the documents taken from the Katyn Forest, but also facilitated and participated in their continued effort to determine the identities of the men to whom they belonged. The contrast between the two exhumations serves to highlight the aspects of the 1943 exhumation that legitimate its position in the pre-history of forensic investigations into human rights violations and other large scale crimes.

I. Katyn at Nuremberg

THE SECOND AFTERLIFE of the Katyn Forest investigation, and the one that perhaps most obviously links it to human rights investigations and prosecutions in the latter decades of the twentieth century, took place at the Trial of the Major War Criminals, held in the Palace of Justice in Nuremberg. The Trial opened in November 1945, just six months after Nazi Germany’s surrender. This first international prosecution of war crimes and crimes against humanity also provided the stage for the first entrance—albeit a tentative and abortive one—of forensic evidence of those kinds

¹⁴⁰ “The Special Commission for Ascertaining and Investigating the Circumstances of the Shooting of Polish Officer Prisoners by the German-Fascist Invaders in the Katyn Forest,” reproduced in “The Katyn Forest Massacre: hearings before the Select Committee,” Vol. 3, 245.

¹⁴¹ “Special Services Branch, Ideological Advisory Section, ‘Katyn Massacre,’” 3, NARA CP RG 59 Records of the Department of State, Voice of America Historical Files.

of crime into the international courtroom. In the case of the Katyn Forest murders, at Nuremberg forensic evidence was called upon for some of the same reasons it has featured in more recent international criminal prosecutions: with a lack of clear documentary evidence, and no available eyewitnesses to the killings, forensic experts were turned to, for the first time in an international criminal context, as the arbiters of facts.

The Soviets were the only prosecution team to introduce forensic evidence at Nuremberg, perhaps surprising considering the number of murders the Nazis committed, and the number of graves created. The Soviets used forensic evidence in only two instances. The first case concerned a grave near the Ukrainian *shtetl* of Slavuta, where the Nazis were accused of executing over 5,000 Jews, nearly the entire population of the town, in the summer of 1941.¹⁴² Soviet forensic scientists had exhumed the graves after the war, exposing a gruesome scene: in addition to bullet wounds, they found cracked skulls, evidence of blunt force trauma, bayonet wounds, and, most disturbingly, in some cases “a considerable quantity of grains of sand in the lower respiratory tracts”—evidence that the victims had been buried alive.¹⁴³ The Soviet prosecution’s use of the forensic evidence from Slavuta, however, was not intended to prove in legal terms how or when or why the people in the graves died. Rather, it served an illustrative purpose, as an illustration of the Nazis’ systematic cruelty.

The second time the Soviets used forensic evidence at Nuremberg was, in contrast, precisely intended to prove a legal charge: that the Germans were responsible for the Katyn massacre. When Allied representatives had met in London in the summer of 1945 to lay the groundwork for the International Military Tribunal and to determine the charges against the German defendants, the Soviet representatives had fought for the inclusion of the Katyn Forest massacre on the list of charges against Göring.¹⁴⁴ The Soviet argument—that as the highest-ranked Nazi official on trial, he should be held accountable for a crime as grievous as the summary execution of prisoners of war—won out over the objections of the British, French, and American representatives, who worried that the facts available would not be able to definitively prove the charge.¹⁴⁵

The problem, however, was not just about proving the charge; it was about fundamental disagreements between the Allied prosecution teams over what charges should be pursued, and what types of evidence would be used to prove them. “Because this was the first international criminal trial in history and was held in the wake of war when passions were high,” American Chief Prosecutor Robert Jackson wrote after the trial’s end, Nuremberg’s planners “did not want any judgment that would rest solely on oral testimony of witnesses whose interest, bias, memory and truthfulness would always be open to question.” Rather, they sought to “charge only offenses whose occurrence could be fully proved or substantially corroborated by documentary evidence captured from the Germans themselves.”¹⁴⁶ A charge involving the Katyn Forest murders was hardly in keeping with this strategy. Nazi-produced documents on the Katyn Forest exhumation were

¹⁴² “Tragedy in the Shtetl of Slavuta,” 165-167.

¹⁴³ International Military Tribunal (Trial Transcripts), Vol. 7, 402-3.

¹⁴⁴ “Robert H. Jackson, “The Katyn Forest Massacre and the Nürnberg International Trial,” 2, NARA CP RG 59 Records of the Department of State, Central Decimal File 1950-1954, 648.6126/8-2950 to 648.6126/3-3152.

¹⁴⁵ “Robert H. Jackson, “The Katyn Forest Massacre and the Nürnberg International Trial,” 3, NARA CP RG 59 Records of the Department of State, Central Decimal File 1950-1954, 648.6126/8-2950 to 648.6126/3-3152.

¹⁴⁶ “Robert H. Jackson, “The Katyn Forest Massacre and the Nürnberg International Trial,” 3-4, NARA CP RG 59 Records of the Department of State, Central Decimal File 1950-1954, 648.6126/8-2950 to 648.6126/3-3152.

singularly unhelpful in proving that Göring—or any other German official—was involved in the murders; to the contrary, the forensic reports and other documentation staunchly asserted German innocence.

In the end, the Soviets won out, and the Katyn Forest murders were included in the list of charges. Faced with conflicting forensic reports, both sides turned to the witness testimony Jackson had so sought to avoid. The Soviet prosecution team also sought to avoid witness testimony, in particular in the Katyn case; from the Soviet perspective, the Burdenko commission's forensic report had definitively established German guilt and rendered witness testimony unnecessary.¹⁴⁷ Two of the six witnesses were forensic doctors, with direct knowledge of the forensic investigations into the Katyn Forest graves. The first, a Bulgarian doctor named Antonov Markov, took the stand after lunch on July 1, 1946. Markov was a professor of Forensic Medicine and Criminology at the University of Sofia, and had been one of the twelve forensic scientists invited by the Germans to the Katyn gravesite. He performed an autopsy on the table in the woods alongside the Swiss Dr. Naville, the American-born Croat Dr. Miloslavich, and the Danish Dr. Tramsen. And, like the other eleven doctors, Markov had signed the group's forensic report over breakfast at the airfield in Bialystok, which contained a unanimous and clear conclusion: the Soviets were responsible for the Polish officers' deaths. But when he took the stand in Nuremberg, the Bulgarian doctor had no intention of reiterating that conclusion, or of clearing Göring's name for what he had found to be a Soviet crime. Rather, Markov was in Nuremberg as a Soviet witness, called to challenge the integrity of the commission on which he had served three years earlier.

"I was called on the telephone by Dr. Guerow, the secretary of Dr. Filoff who was then Prime Minister of Bulgaria." Markov began his testimony. "I was told that I was to take part as representative of the Bulgarian Government, in the work of an international medical commission which had to examine the corpses of Polish officers discovered in the Katyn wood." Not wanting to go—sensing the potential for political, personal, and professional consequences should Bulgaria once again find itself under Soviet occupation—the doctor asked "if [he] could refuse to comply with this order." The answer was firm. "No." Guerow assured the doctor that he would have to do very little; he was merely expected to view the site and sign a report about the proceedings. This report, Markov was told, had already been drafted.¹⁴⁸ Resigned to his fate, Markov dutifully boarded a plane and flew west to meet the other doctors in Berlin.¹⁴⁹

When the group arrived in the Katyn Forest, Markov testified, the commission was treated to a "hasty inspection" of the site: "It was like a tourists' walk in which we saw graves." The "only part of our activity," the doctor told the court, "which could be characterized as a scientific, medico-legal examination of the autopsies carried out by [...] medico-legal experts."¹⁵⁰ Just as the members of the Soviet re-exhumation had, Markov focused his testimony on the condition of the bodies, which, he told the court, seemed in too good a condition to support the German assertion—and the international doctors' conclusion—that the graves were three years old. Even so, the Bulgarian doctor testified that he felt he had no choice but to sign the report. Presented as it was, at an isolated

¹⁴⁷ International Military Tribunal (Trial Transcripts), Vol. 15, 288.

¹⁴⁸ International Military Tribunal (Trial Transcripts), Vol. 17, 333.

¹⁴⁹ International Military Tribunal (Trial Transcripts), Vol. 17, 333.

¹⁵⁰ International Military Tribunal (Trial Transcripts), Vol. 17, 335.

military airfield in Bialystock, he said, it did not seem wise to decline the Nazi officials when they asked him to add his signature to the others.¹⁵¹

The second forensic scientist to testify was another Soviet witness, Dr. Victor Il'ich Prosovsky, the Chief Medical Expert of the Ministry of Public Health of the Soviet Union. Prosovsky had been in charge of autopsies during the Soviet re-exhumation in the Katyn Forest. Like Markov, Prosovsky could speak about the graves with considerable authority: he told the court that he had personally exhumed and examined 5,000 bodies in the mere week the Soviet commission spent at the gravesite. The bullets he found in the bodies were German, he said; documents found in their pockets dated well into 1941. There was no question, he told the court, that the Germans were the killers.¹⁵²

Three days after Prosovsky finished his testimony, Göring's defense attorney, Otto Stahmer, took the floor to offer closing remarks on the Katyn charge. "The question is," the German lawyer began, "did the Prosecution prove this accusation? This question must be answered in the negative. No confirmation of guilt can be found from the contents of this document," referring to the Soviet forensic report. Why, he asked the tribunal, should more weight be given to the Soviet exhumation—conducted entirely by Soviet doctors in just over a week—than to the German investigation, which lasted nearly three months and involved the work of an American, a Swiss, a Dane, a Finn, and several Polish doctors? They had also failed to prove the charge based on the forensic evidence and forensic expert witnesses who appeared in the courtroom.¹⁵³ Based on the evidence admitted by the Tribunal, he said, it was impossible "to clarify completely the medical questions."¹⁵⁴ The Prosecution had failed to show German responsibility for Katyn, Stahmer said, "and therefore this accusation will have to be struck from the indictment."¹⁵⁵

Having just produced two stellar forensic witnesses, the Soviet prosecutors must have found Stahmer's suggestion absurd. But the German lawyer would be the last person to mention the Polish officers for the duration of the Nuremberg trial; none of the Soviet prosecutors would breathe the word "Katyn" into the trial record again. In the final arguments, which began in late July and lasted through August, the Polish officers who had consumed several full days of the court's attention—and six of its thirty-three total witnesses—were conspicuously absent; they were missing as well when the judgment was read aloud in court at the beginning of October. The charge against Göring for the Katyn Forest murders was never officially stricken from the indictment, as Göring's lawyer

¹⁵¹ International Military Tribunal (Trial Transcripts), Vol. 17, 345.

¹⁵² "Germans Forced Katyn Testimony," *The New York Times*, July 3, 1946.

¹⁵³ Taken alone, Stahmer's closing statement on the Katyn Forest murder charge was a damning indictment of the Soviet version of events. He raised questions regarding the thoroughness and length of the Soviet exhumation; wondered aloud why, if the Nazi exhumation had been fabricated, the various international doctors involved, particularly those from the west, would continue to stand by their conclusions when that put them at risk of being labeled Nazi collaborators; and he pointed out that the time of year the Soviets claimed the men were killed still didn't make sense—even in September, the weather hardly would justify winter boots and wool underwear. International Military Tribunal (Trial Transcripts), Vol. 17, 541.

¹⁵⁴ International Military Tribunal (Trial Transcripts), Vol. 17, 541.

¹⁵⁵ International Military Tribunal (Trial Transcripts), Vol. 17, 543

had demanded, but it was also completely absent from the judgment.¹⁵⁶ At the very least, this would suggest that the

The two forensic scientists, Markov and Prosovsky, who testified in the Nuremberg courtroom about the Katyn Forest murders represented the first appearance of forensic evidence in the context of an international criminal prosecution. Setting aside the fact that most of their testimony was fabricated, designed to support a version of events that was derived less from facts than it was from ideology, its very presence is still significant in the sense that it was there at all; there is significance in the fact that the prosecution teams turned to forensic evidence to prove a charge about which other forms of evidence—documentation, eyewitnesses to the killings—were thin. This is a similar role to the one many legal scholars believe forensic evidence can and should play in international prosecutions of large scale crimes: to provide corroboration or triangulation between other forms of evidence, such as witness testimony or documents, thereby strengthening cases and helping to ensure they are prosecuted fairly.¹⁵⁷ The inclusion of forensic evidence from the Katyn Forest gravesite for precisely this purpose at Nuremberg’s Trial of the Major War Criminals, the first truly international tribunal to try large-scale crimes, supports placing the investigation into the Katyn Forest graves into the longer pre-history of international human rights investigations and prosecutions.

II. Katyn in Washington

SOME MIGHT HAVE been content to leave Katyn with Nuremberg’s quiet ending. But a vocal contingent of American Poles was not. In March 1948, *Nowy Swiat* (New World), the leading Polish-language paper in the United States, ran a series of articles about the Katyn Forest murders and exhumation that called for a re-examination of the case. The fact that they were written in Polish prevented them from having much of an impact on public opinion, but within the Polish-American community, they had an effect. The *Nowy Swiat* articles, in combination with the chilling atmosphere of the early Cold War, sparked a push from American Poles to draw international attention to the Katyn Forest massacre. The effort culminated with a letter from the Polish-American Congress to Warren Austin, the U.S. Ambassador to the United Nations, requesting that he demand the UN launch an investigation. Austin never did.¹⁵⁸

The real spark came from the efforts of two men, unlikely allies. The first was the US Ambassador to Warsaw, a longtime foreign servant named Arthur Bliss Lane, who resigned his post and returned to Washington after an apparently fraudulent election in January 1947 solidified

¹⁵⁶ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Otto Stahmer), Congressional Hearing, Vol. 5, 1555.

¹⁵⁷ For example, legal scholar Nancy Combs writes in support of using forensic evidence to corroborate or triangulate evidence in contemporary international criminal prosecutions, “[The] fact-finding impediments [posed by cases relying heavily or exclusively on witness testimony] might not be worthy of significant concern if most convictions were supported by a substantial quantity of documentary or forensic evidence, but that simply is not the case for today’s international trials” (Combs, *Fact Finding*, 6).

¹⁵⁸ Cieniala, Lebedeva, and Materski, *Katyn*, 235.

the Communist takeover of Poland. “To remain in Warsaw” after such an obvious miscarriage of the democratic process, he wrote, “would be interpreted as tacit acquiescence to the fraudulent methods employed in the elections.”¹⁵⁹ Upon his return, the former Ambassador penned a scathing indictment of Western postwar policy towards Poland, titled *I Saw Poland Betrayed*. For Bliss and others, the Katyn Forest murders were symbolic of both the threat the Soviets posed to the Poles, and the implicit responsibility of the west, including the US, in letting the Poles succumb.

The other man who helped to reignite public interest in the Katyn case was an enterprising journalist named Julius Epstein, who took up the issue as his *cause célèbre*. In 1948, Epstein wrote letters to all of the forensic doctors who had served on the international medical commission at the Katyn Forest gravesite. “As a writer who has studied the Katyn murders for some time with the intention to write about it,” each one read, “I take the liberty to approach you to help with this endeavor.” Epstein posed a series of questions for the doctors:

1. Did the German government exercise any pressure upon you before or during your investigation?
2. Do you still hold the same opinion as expressed in the protocol you signed in Smolensk on April 30, 1943 [...]?
3. Are you ready to testify before an American congressional committee or before an American organization investigating the murder of Katyn?¹⁶⁰

Epstein’s reference to an American congressional committee or other American investigation of the Katyn Forest murders was, at that point, more a fantasy of the Polish-American grassroots than it was a potential reality. But events in late 1949, into the summer of 1950, allowed the issue to gain some traction. First, Epstein and Lane joined forces in the summer of 1949; in November of that year they founded a private committee to investigate and publicize the Katyn Forest murders and graves, called the American Committee for the Investigation of the Katyn Massacre, Inc.¹⁶¹ Second, a seemingly unrelated event would inspire public calls for a re-investigation. At the end of June 1950, the North Korean Army invaded South Korea. That summer, the Truman administration sent American troops to Korea to defend the South from the communist North. By August, reports of atrocities had started filtering back to the US. Lane wrote a letter to CIA chief Allen Dulles in the first days of that month, calling his attention to North Korea’s use of what he called “Russian methods of inhuman warfare.” When *Life* Magazine published photos of a dead American G.I. with bound hands and a bullet wound in the nape of his neck, Lane observed that the method of killing eerily recalled the one used on the Polish officers at Katyn.¹⁶²

The *Life* story showed a danger posed by Communism that went beyond the ideological, to an immediate, physical danger—threatening, as it now was, the bodily safety of American young

¹⁵⁹ Lane, *I Saw Poland Betrayed*, 7.

¹⁶⁰ See series of letters in “Schreiben J. Epsteins an die 12 Mitglieder der 1943 von Reichsgesundheitsführer Dr. L. Conti einberufenen Internationalen ärzte-kommission zur Untersuchung der Massengräber in Katyn.” BArch, ZSg 111-26

¹⁶¹ “Letter, Lane to B. Meredith Longstaff, March 29, 1950,” reproduced in Robert Szymczak, “Cold War Crusader,” 5-33.

¹⁶² Letter, Lane to Dulles, August 2 1950, Lane Papers, Box 78, Folder 1403. Cited in Robert Szymczak, “Cold War Crusader: Arthur Bliss Lane and the Private Committee to Investigate the Katyn Massacre, 1949-1952,” *Polish American Studies*, Vol. 67, No. 2 (Autumn 2010), 20.

men. American involvement in the Korean War likely had something to do with the timing of renewed official interest in the Katyn Forest murders and graves. The following summer, in June of 1951, the US House of Representatives passed Resolution 390, which called for the Speaker of the House to appoint a committee of seven representatives who would be “authorized and directed to conduct a full and complete investigation and study of the facts, evidence, and extenuating circumstances” surrounding the massacre of Polish soldiers found in the Katyn Forest.¹⁶³

The following spring, the committee held its first meetings. The committee’s chairman, Representative Ray J. Madden, a democrat from Indiana, opened the hearing with an acknowledgment of the committee’s historic place. “This is the first time in the history of Congress,” he said, “where a committee has been organized or authorized to investigate an international crime committed beyond the borders of our own country.” People had asked, Madden went on, out of all of the massacres and crimes of the Holocaust, “Why Katyn?” The chairman answered his own question. “The world in the future will wonder why an effort had not been made by some government or international authority long ago, to officially determine the mass murderers.”¹⁶⁴ There is no doubt about the influence of increasing Cold War tensions on the opening of the congressional inquiry into the Katyn Forest murders. Yet in Madden’s language justifying their existence, there are reflections of themes that would come to characterize later governmental inquiries into state atrocities, war crimes, and human rights violations: the responsibility to the international community, even more so, and the responsibility in the eyes of future observers.

In the weeks before the first meeting of the committee, Madden had sent letters to the Government of the USSR, the Polish Government in Warsaw, the Polish Government-in-Exile in London, and the German Federal Republic, West Germany.¹⁶⁵ The West Germans and the London Poles agreed to participate; unsurprisingly, the Soviet Embassy in Washington sent an angry letter in response to the invitation. The USSR had no interest in participating, it read, because the Katyn Forest murders had been conclusively investigated twice before: from the Soviet perspective, these two times included the Burdenko commission and its forensic report, and the showdown of forensic witnesses at Nuremberg. Any subsequent investigation undertaken by the US would be, it read, “solely for the purpose of slandering the Soviet Union and thus rehabilitating the generally recognized Hitlerite criminals.”¹⁶⁶ Attached to the letter was a copy of the Soviet forensic report, to emphasize the point: responsibility in the case of the Katyn Forest murders was settled.

Yet over the course of the following year, the congressional committee came to find that responsibility was anything but settled. In a series of seven hearings in Washington, D.C., Chicago, London, Frankfurt, and Naples, a parade of Polish, German, Russian, and American witnesses

¹⁶³ Establishment of a Select Committee to Conduct an Investigation and Study of the Katyn Forest Massacre, H. R. 390, 82nd Cong. (1951).

¹⁶⁴ “The Katyn Forest Massacre: hearings before the Select Committee,” (Statement of Congressman Ray J. Madden), Vol. 2, 221.

¹⁶⁵ “Interim Report of the Select Committee to Conduct an Investigation and Study of the Facts, Evidence, and Circumstances of the Katyn Forest Massacre,” 82nd Cong. (1952).

¹⁶⁶ “Memorandum from the Soviet Embassy (translation and original) transmitting report of Special Commission for Ascertaining and Investigating Circumstances of Shooting of Polish Officer Prisoners, Etc.” Reproduced in “The Katyn Forest Massacre: hearings before the Select Committee,” Vol. 3, 224.

testified under oath. In their statements, virtually all of them gave precisely the opposite conclusion as the one presented in the Soviet Embassy's letter; Katyn, they said, was a Soviet crime. Some of the most convincing witnesses were the forensic scientists who had served as members of the German international medical commission in 1943. Many had been hesitant to say much in their written responses to Epstein,¹⁶⁷ but five of the original twelve doctors agreed to testify before the congressional committee. All five stood by their conclusions from 1943: without reservation, all of them said, the forensic science showed the NKVD to be the guilty party.

The American-born doctor Miloslavich appeared at the committee's second meeting, held in Chicago in March 1952. After the war ended, Miloslavich had slowly made his way back to the United States. He faced a gauntlet of questioning and investigation by American officials before he could return to the States, as did every American in German-occupied territory. The Counterintelligence Corps, the US military's intelligence service, screened him four times in Austria, before pronouncing him clean in March 1946.¹⁶⁸ The following year, Miloslavich moved to St. Louis, Missouri, to direct the pathology department at the city's St. Paul Hospital.¹⁶⁹

Miloslavich told a familiar story in his testimony. He recounted how he got to Katyn—that he read about the plans for the exhumation in a newspaper, and virtually begged the Germans for the opportunity to join the international group of doctors. He described the scene at the gravesite, the smell and the rows of bodies; in his professional opinion, he told Madden and the other representatives, the gravesite could not have been faked. He had even taken a piece of saponified muscle back to his lab at the University of Zagreb, he confessed, and examined it under a microscope there. The condition of that piece of muscle, and of the bodies more generally, along with the dated documents in their pockets left no doubt in his mind that the men were at least three years dead. The Soviets, he told the US congressmen, were the killers.¹⁷⁰

Miloslavich described to the commission the mechanics of the execution technique observed on virtually all of the bodies—called the *Nackenschuss*, in German, the shooting style was the signature of the NKVD, where victims were executed with a single bullet placed at the nape of the neck. In one of the more darkly comical moments of the hearings, Representative Daniel Flood of Pennsylvania suggested that the doctor demonstrate the positions of victim and executioner necessary for such a shot. “I tell you what you do,” Flood told Miloslavich. “You take Mr. Mitchell here”—indicating John J. Mitchell, the committee's legal counsel—“if your gun isn't loaded, and demonstrate on him for us, will you, just at what point at the base of the skull this missile interest and on what part of the face was the point of exit.”¹⁷¹ Photos show the lawyer Mitchell kneeling on

¹⁶⁷ The doctors' correspondence with Julius Epstein is included in the Sammlung Epsteins, held at the Bundesarchiv location in Koblenz, Germany. Doctors Naville and Tramsen offer lengthy responses to Epstein's letter; others offer succinct answers or decline to respond to the questions posed. Letter exchanges can be found in full at BArch ZsG 111-27.

¹⁶⁸ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Edward Miloslavich, Congressional Hearing), Vol. 3, 325.

¹⁶⁹ “Dr. Edward Miloslavich, noted pathologist, dies,” Missouri Sentinel, November 14, 1952.

¹⁷⁰ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Dr. Edward Miloslavich), Vol. 3, 317.

¹⁷¹ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Dr. Edward Miloslavich), Vol. 3, 317.

the courtroom floor, his head bowed. Dr. Miloslavich stands behind him, holding a handgun to the back of the poor man's head.¹⁷² The committee seemed to trust Miloslavich's word as much as they did his hand holding a gun. The Congressmen thanked him for his patriotism both in participating in the exhumation and for his willingness to tell them his story.¹⁷³

Three of the other doctors testified at a hearing held by the US Congressmen in Frankfurt: the Hungarian Dr. Orsos, the Danish Dr. Tramsen, and the Swiss Dr. Naville; the Italian Dr. Palmieri testified at a brief hearing held in Naples specifically to hear his. One by one, the doctors confirmed for the committee that they still stood by the conclusions in the International Medical Commission's original forensic report. Naville, the Swiss doctor, was last to testify. He did not like the Nazis, he said, but they didn't interfere with the investigation into the graves at Katyn. The Soviets, he remained convinced, killed the Polish Officers found at Katyn.¹⁷⁴

After hearing from Naville and the other doctors at the hearing in Frankfurt, the committee released an interim report to advise Congress about the committee's activities and midterm conclusions. Even midway through the game—further hearings were planned for the following fall, back on US soil—the committee's conclusions read loud and clear. “This committee unanimously finds, beyond any question of reasonable doubt, that the Soviet NKVD committed the mass murders of the Polish officers in the Katyn Forest. The evidence, witness testimony, and the documents seen by the committee, the report continues, “will show the people of the world that Russia is directly responsible for the Katyn massacre. Throughout our entire proceedings, there has not been one scintilla of proof or any remote circumstantial evidence presented that could indict any other nation in this international crime.”¹⁷⁵ There was no evidence against any other nation, this implied, including Nazi Germany. The interim report leaned heavily on the forensic testimony. The doctors' “unanimous conclusion,” the report read, “was that the Poles were murdered at least 3 years ago—thus placing the time of death as the spring of 1940 when the Katyn area was under Soviet control.”¹⁷⁶ The committee's final report, issued in December 1952, reiterated this conclusion: the Nazis were innocent of the Katyn massacre, and the Soviets were guilty.¹⁷⁷

The Committee recommended that the international community take legal action against the Soviets, just as it had against the Nazis six years earlier. Madden and the other representatives asked President Truman to forward his testimony and evidence gathered by the committee to the US delegate to the United Nations with instructions to present the Katyn case before the General Assembly. This, they hoped, would trigger action by the International Court of Justice in The Hague, Netherlands. Although the US delegate did bring it up before the General Assembly

¹⁷² “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Dr. Edward Miloslavich), Vol. 3, 317.

¹⁷³ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Dr. Edward Miloslavich), Vol. 3, 317.

¹⁷⁴ “The Katyn Forest Massacre: hearings before the Select Committee,” (Testimony of Dr. Francois Naville), Vol. 5, 1602-1615.

¹⁷⁵ “Interim Report of the Select Committee to Conduct an Investigation and Study of the Facts, Evidence, and Circumstances of the Katyn Forest Massacre,” 82nd Cong. (1952).

¹⁷⁶ “Interim Report of the Select Committee to Conduct an Investigation and Study of the Facts, Evidence, and Circumstances of the Katyn Forest Massacre,” 82nd Cong. (1952), 22.

¹⁷⁷ See “Final Report of the Select Committee to Conduct an Investigation and Study of the Facts, Evidence and Circumstances on the Katyn Forest Massacre,” 82nd Cong. (1952).

meeting, no international legal action concerning the Katyn Forest murders was ever pursued further.¹⁷⁸

THE VARIOUS AFTERLIVES of the Katyn Forest murders described in this chapter offer three different ways in which the murders and subsequent exhumation of the men in the Katyn forest can be seen as a moment in the pre-history of later international investigations and prosecutions into war crimes and human rights violations. The first such afterlife, the Soviet re-exhumation of the gravesite, serves as a foil of sorts for the German exhumation, a negative that throws the positive into relief. The Burdenko commission's *raison d'être* was propaganda. It never intended to be a scientific investigation into the graves; rather, it only meant to *look* like one, to mimic aspects of the German exhumation—the appearance of scientific inquiry and factualness—and mobilize them to obscure the facts of what the graves contained. Yet even as the Soviet exhumation flaunted the very precepts of science, it also betrayed a respect for the value forensic science brought to such investigations. The Soviet investigation took place within weeks after the Red Army retook the Smolensk area, and in the dead of winter, when the ground was frozen and digging was more difficult. Such a rush to open the graves is suggestive of how important Soviet officials must have felt it was to have scientific evidence of their own to combat that from the German-led exhumation. And indeed, the reception of the Soviet commission's report—that it confused the facts in the Katyn case for the better part of a decade—validates that importance: that there was science to support the Soviet version of events was nearly as important as the content or trustworthiness of that science.

As a show of scientific inquiry, done entirely for propaganda, the Soviet exhumation helps to clarify that its German-led counterpart might *not* be best categorized as propaganda. It is not hard to imagine the German investigation succumbing to the same temptation, to use the *appearance* of science in lieu of real science to build their publicly told version of events. But as it was carried out, the German exhumation went well beyond what the propaganda story entailed: international doctors participated in the exhumation, including a team of Polish doctors, who, whatever their political leanings, felt more responsibility to their dead countrymen than they did to the German *Wehrmacht*; the investigation at the gravesite lasted far longer than the media's or the Propaganda Minister's attention span; and the painstaking work to clean and read the documents went on for the nearly two years more.

That the German-led exhumation of the Katyn Forest graves deserves to be seen not just as propaganda, but as a moment in the history of international criminal investigations—and in the pre-history of international investigations and prosecutions of large-scale crimes such as human rights violations—is furthered by what I've called its second and third afterlives: the Katyn Forest's appearance at Nuremberg and then in a US governmental inquiry inspired by grassroots activists in the Polish-American community. At Nuremberg, forensic evidence and expert witness testimony featured prominently in the courtroom battle over the charge related to the Katyn Forest murders. Much of what was presented in court by the forensic doctors was false—edited or wholly fabricated to fit the Soviet contention of German guilt—but the fact of forensic evidence and forensic expert

¹⁷⁸ Robert Szymczak, "Cold War Crusader," 31.

witnesses' presence in the Palace of Justice at all, at the first international attempt to prosecute large-scale crimes, is significant for the story at hand. The forensic witnesses who testified, however untruthfully, at Nuremberg were there for many of the same reasons forensic experts are called upon in international criminal prosecutions today: to offer proof that there was a massacre; to fill in the blanks surrounding that massacre in the absence or scarcity of other forms of evidence; and to offer corroboration or triangulation to those other pieces of evidence—as Markov and Prosovsky did, however disingenuously, in the Nuremberg courtroom.

The Katyn Forest massacre's third afterlife serves to solidly place it into the pre-history of human rights investigations and prosecutions. After a sustained, years-long grassroots campaign by members of the Polish-American community that called for a public re-examination of the facts surrounding the Katyn investigation and prosecution, the Congressional inquiry not only emerged but also adopted a language that would become familiar in US approaches and reactions to large-scale crimes abroad. As he opened the committee's second hearing, Congressman Ray J. Madden spoke to the weight of morality and of history that hung on the inquiry at hand. He had been asked, he said, "Why Katyn?" when there were so many other crimes of the Second World War and the Holocaust. "There were mass murders, helpless people burned in ovens, wholesale tortures, and other kinds of killings of human beings by both Nazi dictators and Communist dictators. The Nuremberg Trials were held. Some of the international criminals have received their penalties." And yet, the Congressional investigation of the Katyn Forest murders was going forward, "in order that responsibility for the Katyn killings can be placed where it rightly belongs."¹⁷⁹ That language was one of moral superiority and American exceptionalism for looking into a foreign crime, expressing a sense of duty to future generations of world citizens to sort out truth from fiction in the historical record.¹⁸⁰ The Congressional investigation into the Katyn Forest murders can be understood as an early example of such an attitude. Yet Madden never fully answers his own question: why Katyn? Any number of massacres or other crimes from the Second World War would have demonstrated American concern for a foreign crime; Katyn simply was the event they were concerned about. In one sense the motivations were likely political: the early Cold War made it more politically palatable to investigate a Soviet crime than it did a German one. But the fact that the Katyn Forest graves had already been investigated—and that evidence already existed for the Committee to review—may have made a Congressional hearing feasible.

III. Katyn Returns to Smolesnk

¹⁷⁹ "The Katyn Forest Massacre: hearings before the Select Committee," (Statement of Congressman Ray J. Madden), Vol. 2, 221-222.

¹⁸⁰ See, e.g., a discussion of this phenomenon in Power, *Problem From Hell*, esp. chapters 9 and 10, 247-390. Power argues that a sense that the United States can and should speak on, investigate, and intervene in cases of large-scale crimes and human rights violations (specifically genocide) abroad is a product of the Second World War, that began with Nuremberg and flourished in the wake of genocides in Rwanda and Yugoslavia.

DR. FRANCOIS NAVILLE passed away in 1968, at the age of 84.¹⁸¹ He left behind him a considerable body of forensic work, but what he is best known for still today is his contributions to the Katyn exhumation, and indirectly but profoundly, to the foundations of forensic experts' involvement in investigations into crimes of international concern, the kinds of crimes today often referred to as human rights violations.¹⁸² His personal archive, which rests at the International Committees of the Red Cross archive in Geneva, contains a red leather box, embossed with gold piping around the edges of the lid. Inside, on a plush pillow of cream-colored satin, lies a gold and red medal in the shape of a star. A Polish military eagle stands in the medal's center, this one silver and raised, almost three-dimensional. In 2007, almost forty years after Naville's death, Poland's then-President Lech Kaczynski bestowed this medal to the family of Swiss doctor, posthumously honoring Naville with the Grand Cross of the Order of Merit in the Republic of Poland, an honor awarded to foreigners or Poles living abroad in recognition of their service to the Polish nation.¹⁸³ Kaczynski's government had political reason to award Naville such an award: it leaned right and nationalist, and in general sought to revive the heroic narrative of Polish history as the history of suffering nobly at the hands of others. Honoring Naville as a neutral voice who stood up for Poland and Polish dignity against her Russian and German aggressors fit nicely into Kaczynski's version of Poland's past.¹⁸⁴

Three years after he awarded Naville this honor, an odd and tragic twist would rip open Poland's Katyn wounds once more, and focus an international spotlight on Kaczynski's efforts to remember the past. On April 10, 2010, The Polish President, First Lady, and 94 other members of Poland's military and political elite boarded a plane in Warsaw. The plane, an aging Russian-made Tupolev TU-154 aircraft, was delayed on the runway in the Polish capitol for 27 minutes due to bad weather. Finally, it lifted off and turned east, heading toward a military airfield in Smolensk. It was a rainy early spring morning in Warsaw, but by the time the plane began its approach into Smolensk, the weather conditions had deteriorated considerably. A heavy fog hung over the airfield, limiting visibility to far under what would normally be required to allow a plane to land in Smolensk.¹⁸⁵ Under any other circumstances, the Russian ground crew should have closed the airport, but the significance of the day prevented them from doing so; it was suggested later that they feared closing the airport might cause a diplomatic incident. The Polish pilot also may have feared the reaction—from the Polish President sitting behind him on the plane, as well as the Russians' disapproval—if he chose to divert.¹⁸⁶

¹⁸¹ Karbowski, "Professeur Francois Naville."

¹⁸² The International Committee of the Red Cross held a three-day conference at its Geneva headquarters in 2007 in honor of Naville's early contribution to the work of forensic doctors in humanitarian crises, which resulted in an edited volume: *Katyn et la Suisse: Experts et expertises médicales dans les crises humanitaires, 1920-2007*, which places Dr. Naville in the center of a Swiss-led movement of forensic and medical intervention into global humanitarian crises.

¹⁸³ ACICR, P FN-111, Medal of honor from Poland

¹⁸⁴ Etkind, Finnin, Blacker, Fedor, Lewis, Mälksoo, and Mroz, *Remembering Katyn*, 133.

¹⁸⁵ Simon Hradecky, "Crash: Polish Air Force T154 at Smolensk on Apr 10th 2010, impacted trees on first approach," *Aviation Herald*, April 10, 2010.

¹⁸⁶ It was widely reported in Russian media that the Polish pilot had been under pressure to land from the Polish government officials on the plane; the Polish report, in contrast, suggests that the air traffic control crew in Smolensk feared causing a diplomatic incident if they did not allow the plane to land. It is not inconceivable that both are true. The official English translation is titled, "Final Report from the examination of the aviation accident no 192/2010/11

Gorbachev had released the Beria memorandum and admitted NKVD responsibility for the Katyn massacre twenty years earlier, but the issue continued to roil various political factions in Russia and Poland. Just three days prior to Kaczynski's flight to Katyn, on April 7th, the Polish Prime Minister Donald Tusk attended a ceremony in the Katyn forest with Russian President Vladimir Putin. Putin was the first Russian official to attend a memorial service for the seven decade-old massacre. The two men laid huge pine wreaths outfitted with sashes bearing the colors of the Polish and Russian flags on a stone memorial commemorating the Polish officers' tragic deaths. "We bow our heads to the men who bravely met death here," the Russian president intoned before the solemn crowd of Polish and Russian officials.¹⁸⁷ Polish Prime Minister Tusk spoke next. "I want to believe that the word of truth can bring together two great nations, which have been painfully separated by history."¹⁸⁸

But even as the Russian and Polish soldiers placed the wreaths at the base of a large Russian Orthodox cross—no small irony at a ceremony marking the deaths of Polish Catholics—on the Katyn memorial, some in Russia were already pushing back. Russia's Communist Party lambasted Putin for "going to Katyn to apologize." The Russian President could bow to international pressure to apologize all he wanted, a statement on their website declared, but "no one can hide the fact of German responsibility for the shootings of Polish soldiers." Then, the Poles and Russians alike bowed their heads as the air filled with the stirring chords and crescendos of the Russian national anthem. This, again, was not without irony: the music of the Russian national anthem varies little from the anthem of the USSR, the very song that would have been played by the NKVD officers who executed the Polish officers at Katyn.¹⁸⁹

The Polish President Kaczynski was scheduled to attend a ceremony three days later, on April 10—there is some controversy within Poland as to which April day should memorialize the Katyn killings¹⁹⁰—involving representatives of Polish organizations dedicated to preserving and validating the memory of Katyn. It was this group that boarded the Tupolev aircraft that morning, and lifted off in heavy fog from Warsaw. The Polish president was eager to make it to Smolensk for the ceremony. For one thing, ideological and historical tensions between President Kaczynski and Prime Minister Tusk had been growing over the previous three years, since Tusk assumed the job of second in command. Tusk, a historian by training, put no stock in Kaczynski's romantic and tragic view of Polish historical suffering; instead, he saw righting relations with Russia as critical for Poland's diplomatic and economic future. In contrast, President Kaczynski's ceremony would memorialize precisely that Polish suffering. The President planned a counterpoint to Tusk and Putin's joint ceremony: he would surround himself with advocates of Katyn commemoration, and to reaffirm Katyn's symbolic place in Poland's history of tragedy. According to a group devoted to

involving the Tu-154M airplane, tail number 101, which occurred on April 10th, 2010 in the area of the Smolensk North airfield."

¹⁸⁷ Michael Shiwirtz, "Putin Marks Soviet Massacre of Polish Officers," *The New York Times*, April 7, 2010.

¹⁸⁸ Michael Shiwirtz, "Putin Marks Soviet Massacre of Polish Officers," *The New York Times*, April 7, 2010.

¹⁸⁹ Michael Shiwirtz, "Putin Marks Soviet Massacre of Polish Officers," *The New York Times*, April 7, 2010.

¹⁹⁰ The national day of commemoration observed by the Polish parliament is rather April 13, the day the Germans announced the discovery of the Katyn graves to the world. Etkind, Finnin, Blacker, Fedor, Lewis, Mälksoo, and Mroz, *Remembering Katyn*, 135

memorializing the Smolensk crash, the speech Kaczynski planned was clear on that point: on “the path of the Polish Golgotha of the East,”

the most tragic station [...] was Katyn. Polish officers, priests, officials, police officers, border and prison guards were killed without a trial or sentence. They fell victims to an unspeakable war. Their murder was a violation of the rights and conventions of the civilized world. Their dignity as soldiers, Poles and people, was insulted. Pits of death were supposed to hide the bodies of the murdered and the truth about the crime forever.¹⁹¹

The Polish pilot flying Kaczynski’s plane into Smolensk surely understood the importance of the day, and the importance of delivering his President to the ceremony. The Russian air traffic controller told the approaching Tupolev crew that visibility had reduced to under 400 meters, and that there were “no conditions to land.” The Polish pilot radioed back, asking for clearance to make a test approach to the runway.¹⁹² Smolensk’s air traffic controller granted that request, and advised the plane to stay above 100 meters in altitude. But the topography surrounding the landing strip may have confused the plane’s instruments and the flight crew. The approach to the runway led over a deep ravine, which caused the plane’s altimeter to show the plane 60 meters above the ground when they were really 15 meters *below* the level of the runway. The pilot realized his mistake too late to pull the plane back up.¹⁹³ One of the wings clipped a birch tree, and the force of the impact sent the plane into a spinning nosedive. It smashed into the ground nose-first and upside down.¹⁹⁴ Modeling done after the crash suggested that the impact created G-forces more than ten times what the human body can withstand. Everyone on board was killed instantly.¹⁹⁵

Because the plane crashed on Russian soil, by International Civil Aviation Organization regulations the Russian government was responsible for leading the official investigation of the crash. That report, released in January 2011, noted that the Commander of Poland’s Air Force appeared briefly in the cockpit to impress upon the pilot the importance of landing and of delivering the Polish luminaries to the Katyn ceremony. The pilot, the report suggests, may have felt he was under a direct order from his most senior of supervising officers to land.¹⁹⁶ The Polish Committee for Investigation of National Aviation Accidents released a report of its own six months later. Although it largely agreed with the facts of the Russian MAK report, it downplayed the charge that the pilot had felt any pressure to land.¹⁹⁷ The Polish investigation also shifted some

¹⁹¹ Lech Kaczynski, “The Speech That Never Was...President Lech Kaczynski’s Undelivered Speech Prepared for the 7th Anniversary of the Katyn Massacre,” *The Last Speech: Smolensk Crash Investigation Resources*. <http://www.lastspeech.com>

¹⁹² Simon Hradecky, “Crash: Polish Air Force T154 at Smolensk on Apr 10th 2010, impacted trees on first approach,” *Aviation Herald*, April 10, 2010.

¹⁹³ Simon Hradecky, “Crash: Polish Air Force T154 at Smolensk on Apr 10th 2010, impacted trees on first approach,” *Aviation Herald*, April 10, 2010.

¹⁹⁴ Simon Hradecky, “Crash: Polish Air Force T154 at Smolensk on Apr 10th 2010, impacted trees on first approach,” *Aviation Herald*, April 10, 2010.

¹⁹⁵ Gieras, “Selected Technical Aspects of TU-154M Smolensk Air Crash on April 10, 2010.”

¹⁹⁶ “Pilot error caused Kaczynski’s plane crash,” *Russia Today*, 26 May 2010.

¹⁹⁷ “Tu-154 recording reveals break in communication protocol,” *Russia Today*, April 12, 2010.

of the blame for the crash onto the Smolensk air traffic controllers' actions, such as their attempt to talk the Polish pilot through a landing despite its obviously wrong approach trajectory, as well as the failure of the tower to inform the crew that the plane was coming in far too low until it was too late.¹⁹⁸

After the two official reports were published, Polish nationalists spun conspiracy theories about Russian complicity in the crash: the Russians pumped fog onto the runway to obscure the pilot's view; the bodies of the crash victims were doctored and sewn back together before fake autopsies; the Russians planted explosives on the plane.¹⁹⁹ In November 2012, Poland's leading conservative newspaper, *Rzeczpospolita*, published a front-page story that claimed Russian investigators had buried evidence of foul play. The article claimed that investigators found traces of high explosives such as TNT and nitroglycerin in the plane's wreckage. The newspaper was forced to recant the story shortly thereafter; the newspaper clarified that the chemical traces *could* have come from such explosives, but they also *could* have come from various other more benign sources.²⁰⁰ But to many, the suspicions it raised about foul play seemed reasonable. In 2013, fully one third of Poles said they "took into consideration" the possibility that the crash was no accident.²⁰¹

Treatment of the victims' bodies during the Russian-led investigation also came under fire from some groups of Poles. The Polish Minister of Health told Poland's lower house of Parliament that the ground was cleared to a depth of one meter in the vicinity of the wreckage, and that even the smallest speck of human flesh found was genetically tested. But in September 2010, a group of Polish pilgrims to the airfield claimed they found a skeletonized human jaw lying on the ground near the crash site, along with two other human bones. A significant number of victims' families remain unconvinced that genetic testing was done, at least in any systematic manner, and serious doubts have arisen about the Russian autopsies on which many of the identifications were based. With the help of a Polish lawyer living in Berlin, families exhumed a dozen bodies of crash victims, and had their remains retested. The tests confirmed at least some of their suspicions: two of the female victims, they found, had been confused for each other.²⁰²

In the minds of many Poles, Katyn and Smolensk—the term that has become shorthand in Poland for the plane crash and Kaczynski's death—are inextricably linked, two events that mirror each other both symbolically and very literally. Together, they are seen as two punctuation marks in Polish-Russian history—points that demonstrate that no matter the circumstances, interactions with Russia end with Polish bodies in the ground. A Polish priest, Father Marian Putyra, lamented, "Has

¹⁹⁸ "Final Report from the examination of the aviation accident no 192/2010/11 involving the Tu-154M airplane, tail number 101, which occurred on April 10th, 2010 in the area of the Smolensk North airfield."

¹⁹⁹ Dan Bilifsky, "Rift Over Air Crash Roils Poland's Artists," *The New York Times*, May 28, 2013.

²⁰⁰ "Fanning the Flames of Conspiracy Theories," *The Economist*, November 6, 2012.

²⁰¹ Etkind, Finnin, Blacker, Fedor, Lewis, Mälksoo, and Mroz, *Remembering Katyn*, 133-150.

²⁰² Jan Puhl, "The Polish Gadfly: A Lawyer's Quest for Clarity on the Smolensk Plane Crash," *Der Spiegel*, January 4, 2013. URL: <http://www.spiegel.de/international/europe/berlin-lawyer-stefan-hambura-questions-smolensk-plane-crash-burials-a-875779.html>

that Katyn earth demanded still more Polish blood?! How much more of that blood needs to be spilled in order that the truth about that drama be finally made clear?”²⁰³

For Father Putyra as much as for the Russian Communists who staunchly maintain German guilt for Katyn, the truth about either tragedy may never be made fully clear. Official records of “the facts” may never line up in the way that best suits their worldview. This is the situation that haunts all forensic investigations: violent, mass death is always emotional. What is emotional is often manifested as political. And what is political is rarely transparent or uncontroversial. Not even the influence of scientists can stem the tide of varying interpretations. This, too, is hardly dissimilar from what came later; in its very ambiguity the Katyn Forest exhumation and its many afterlives claims a place in the early history of human rights investigations.

²⁰³ ‘Ile ofiar zazada jeszcze Katyn od Polski? *Jasielski Portal Informacyjny*, (11 April 2010). Excerpt translated in Alexander Etkind, Rory Finnin, *Remembering Katyn* (Cambridge: Polity Press, 2012), 142.

PART II

EXPERIMENTATION: Case Studies

3. Argentina, 1984

4. Brazil, 1985

5. Guatemala and Iraq, 1990-1992

CHAPTER 3

Argentina, 1984



APRIL 24, 1985, was the third day of the *Juicio a las Juntas*, the Trial of the Junta, Argentina's historic legal effort to prosecute nine members of a military junta that ruled the country from 1976 to 1983. That afternoon, an American forensic anthropologist named Clyde Snow took the stand and gave a stunning performance. Snow had come to Argentina for the first time the previous June with a team of forensic scientists from the American Association for the Advancement of Science (AAAS), to assist local, grassroots groups in their search for the bodies of the *Desaparecidos*, victims of the military government's repression and violence.

The anthropologist stood at the front of the courtroom, describing the painstaking care he took with each individual skeleton or set of human remains in an exhumation, and the detective work he did to sort out who the bones had been in life. “First,” he said, “we excavate where we think the feet are, because once we locate the remains of the feet we can determine the average depth of the rest of the body,” as well as the direction in which the body is lying. “Then,” he continued, “we being the slow and delicate job of exposing the whole skeleton. This requires hours of work using very fine tools like paint scrapers and brushes.”²⁰⁴

Snow explained to the court that such care was necessary so that no evidence—small bones, bullets, or teeth that might help to identify a person or determine how he or she died—would be lost. This description stood in stark contrast to the methods that had been employed by the Argentine government in the months prior to his arrival in its first attempts to exhume the country’s mass graves: mechanical digging equipment like backhoes and front-end loaders had torn through the dirt covering graves all over the country, breaking up skeletons, retrieving bones but in many cases mixing them up or otherwise destroying the evidence they otherwise might have revealed. This was not a problem unique to Argentina, Snow told the court. “This is a problem that is also seen in the United States, where the authorities responsible for the recovery of skeletal remains—the police—many times use improper methods to investigate a grave,” methods that result in the same kind of evidentiary losses.²⁰⁵

After the skeleton is exposed, the anthropologist went on, he and his team photograph it, and meticulously record its exact position. As he spoke, Snow clicked through slides on a projector, splashing photos onto a large screen at the front of the courtroom of skeletons lying on the dirt.²⁰⁶ The anthropologist pointed out evidence of traumatic injury for the silent crowd. “You can see that his left arm is broken,” he said. Then he pointed to a bullet hole visible in the jaw. Based on the hole in the bone and bullet fragments found nearby, he said, forensic experts could tell what kind of ammunition was used to do the killing.²⁰⁷

But it was another identification that would have the most powerful effect on the courtroom. Snow flipped the slide to photographs of another skeleton, one belonging, he told the court, to Liliana Carmen Pereyra. Pereyra, a 21 year-old bank clerk, disappeared from a guesthouse in the coastal Argentine city of Mar del Plata, in October 1977. At the time, she was five months pregnant. Despite her parent’s frantic attempts to find out what happened to her, Pereyra’s family never heard from her again. Nor did they know what happened to her child. Coche Pereyra, Liliana’s mother, refused to give up hope that her grandchild was alive. In 1979, she joined the *Abuelas de la Plaza de Mayo*, an organization dedicated to locating the children—their grandchildren—who had been stolen and illegally adopted into military families during Argentina’s seven year long Dirty War.²⁰⁸ The middle generation was mostly young adults like Liliana Pereyra—who had been abducted and killed by the military—was known as the *Desaparecidos*, the Disappeared. The word “disappeared” was first made into a transitive verb—one could “be disappeared,” meaning

²⁰⁴ Testimony of Clyde Collins Snow, May 27, 1985, *El Diario del Juicio*, No. 1.

²⁰⁵ Testimony of Clyde Collins Snow, May 27, 1985, *El Diario del Juicio*, No. 1.

²⁰⁶ Joyce and Stover, *Witnesses From the Grave*, 266.

²⁰⁷ Testimony of Clyde Collins Snow, May 27, 1985, *El Diario del Juicio*, No. 1.

²⁰⁸ Joyce and Stover, *Witnesses from the Grave*, 252.

kidnapped in secret and never heard from again—in Guatemala, during that country’s bloody political violence of the 1960s. But its use was perhaps perfected in Argentina. A national commission would later determine that nearly 9,000 people were disappeared—arrested, detained, killed, and buried or disposed of without a trace—in the seven years of military *Junta* rule. Hundreds of their children were stolen.²⁰⁹

The *Abuelas* like Coche Pereyra believed that those children had been adopted illegally into military families and were still alive. Shortly after joining the *Abuelas*, Coche Pereyra learned a startling piece of information: an eyewitness, a woman held in the same facility as Liliana Pereyra but who was later released, reported that four months after her capture, Liliana Pereyra gave birth to a baby boy at the Naval Mechanics School, known as ESMA for short, a Naval Academy-turned torture and detention facility near the city of Mar del Plata; her baby was taken away shortly after. In December 1983, when the military allowed the newly installed civilian government to open its files, Coche Pereyra hired a lawyer. Together, they started checking burial records at the cemetery nearby, and found two entries from the months after Coche Pereyra’s child was born, two unnamed bodies that matched her daughter’s description. Bodies that had arrived at Argentina’s morgues throughout the period of military repression and violence were logged as N.N.: *ningún nombre*, “no name”—John or Jane Does, bodies stripped of their identities. Argentina’s many thousands of N.N. bodies were buried in mass graves in or near cemeteries across the country, their presence often only traceable through handwritten morgue records that showed spikes in unidentified dead.²¹⁰

In early 1984, Pereyra got in touch with a local judge, Pedro Hooft, and asked him to get permission for an American forensic team, led by Snow, to exhume the two bodies in the Mar del Plata cemetery.²¹¹ Judge Hooft warned the American anthropologists that the exhumation might present some challenges. First, anthropologically: the burial records of both bodies were very similar, so similar that it might be difficult to distinguish between the two women. Based on the burial records, it was impossible to tell which body might have been Liliana Pereyra’s: both records showed women of roughly the same age, height, and weight, with the same hair and eye color. Indeed, when the grave was opened, Snow found that the bones did not provide a clear answer; both of the skeletons could have been Liliana Pereyra’s. But it was her skeletal remains that provided the final clue: a chest x-ray and dental records. According to her family, shortly before she disappeared, Liliana Pereyra had an upper canine extracted, leaving a hole in her smile. The forensic odontologist who accompanied Snow to the gravesite, a Chicago-based dentist named Dr. Lowell Levine, confirmed the match: one of the skulls in question was also missing its upper left canine, the

²⁰⁹ Amnesty International, *Disappeared*, 1-2. See also Guest, *Behind the Disappearances*, 31; The national commission came to the number 8,860 based on depositions filed by families of the missing during the commission’s investigations. Human rights groups insisted that the number was far higher; they cited 30,000 disappearances. Based on police, hospital, and morgue records, the Argentine Forensic Anthropology Team would arrive at a similar number as the national commission: 9,150. In September 2001, however, Argentina’s Undersecretary of Human Rights reported the official count had reached 15,000. Because bodies were buried all over the country in clandestine graves, cremated, or dumped into the ocean from planes, the true, exact number of *desaparecidos* may never be known. See Robben, *Political Violence*, 323

²¹⁰ Graph showing spike in N.N. bodies and burials at the morgue in La Plata between 1975 and 1978 produced by the *Abuelas* of the Plaza de Mayo, in possession of the author.

²¹¹ Joyce and Stover, *Witnesses From the Grave*, 256.

only fault in otherwise perfect teeth. The bones likely belonged to Liliana Pereyra.²¹² Similarities in the chest x-ray clinched confirmed the identification.

The bones revealed something else that gave Coche Pereyra much hope. During his testimony before the *Juicio*, Snow told the court that he found no indication of small fetal bones in or near her pelvis in the grave, as one would expect to find if she had been still pregnant when she was killed. But her pelvic bones were still revealing. During childbirth, the pubic bones separate, allowing the child to fit through the birth canal. The ligaments connecting the pubic bones stretch, sometimes tearing and causing bleeding at the points where the ligaments attach to the bone. The process of healing those tears can leave small grooves on the inside of the pelvic bones, telltale signs that a woman has delivered a full-term or near-term child.²¹³ In the courtroom, Snow traced these notches on the slide showing Liliana's skeleton with his pointer. The young woman, he said, gave birth to a baby shortly before she died.²¹⁴

Pereyra's skeleton was its own best witness to the crime that had taken her life: the compounded violations of kidnapping, birth, and death.²¹⁵ Snow's presentation of Liliana Pereyra's bones made an impression in the courtroom that April day in 1985. Ultimately, his testimony—along with that of human rights activists, survivors, family members, and investigators for the government-established National Commission on the Disappearance of Persons (*Comisión Nacional sobre la Desaparición de Personas*, or CONADEP)—secured the convictions later that year of five of the nine men on trial. Two, including former *Junta* leader General Rafael Jorge Videla, were given life sentences; the other three received 17, 8, and 4 years. Four of the men were acquitted. For Argentina's human rights groups, it was hardly the rousing success they had hoped for.²¹⁶ But it was a meaningful step for the future of forensic science in support of international human rights investigations.

* * *

FORENSICS HAD COME a long way from the Katyn forest, where the German doctors spent months cleaning and trying to read pieces of fat-soaked paper in the hopes of putting names to bones. Since the 1960s in the United States, forensic scientists had also been applying their craft to larger disasters such as plane crashes, where the large number of unidentified dead is comparable to that found in mass graves made by human rights violations. Clyde Snow was one of the pioneers of these investigations. As a young doctoral candidate in Anthropology at the University of Arizona, Snow took a job at the Civil Aeromedical Institute, CAMI for short. Based in Oklahoma City, CAMI is an arm of the Federal Aviation Administration that, among other duties, conducts research on airplane safety. Snow spent his days putting test dummies into all kinds of precarious situations, and helped

²¹² Cases: Liliana Pereyra, "Visible Proofs: Forensic Views of the Body."

²¹³ Kelley, "Parturition and pelvic changes," 541–545.

²¹⁴ Testimony of Clyde Collins Snow, May 27, 1985, *El Diario del Juicio*, No. 1.

²¹⁵ Testimony of Erik Stover (Eric Stover), May 27, 1985, *El Diario del Juicio*, No. 1.

²¹⁶ Lewis, *Guerrillas and Generals*, 220.

to redesign seat restraints and emergency exits. In 1968, he was named head of the lab.²¹⁷ The breakthrough, defining investigation of Snow's early career began on May 26, 1979, with one of the worst airline disasters in American history. That day, an American Airlines DC-10 airplane with 271 people on board smashed into the runway at Chicago's O'Hare airport less than 60 seconds after takeoff, killing everyone on board and two people on the ground.²¹⁸ Snow flew to Chicago immediately. In the ensuing investigation, which took Snow and a team of investigators almost two months, investigators were faced with a major problem: how to identify individuals out of a huge number of bodies burned beyond recognition? The investigators, with the help of a programmer from American Airlines, developed a computer database to keep track of the possible identifications they made by comparing dental and skeletal x-rays provided by the families of the people on board with the jaws, teeth, and bones of the charred bodies recovered from the crash.²¹⁹ Ultimately, Snow and the FAA team were able to identify over two hundred of the bodies, and return the remains to their families. This database Snow developed in Chicago would also assist much of his work in Latin America in the decade to come.

This chapter follows Snow and a team of American forensic scientists and human rights activists on their first foray into using forensic science in the explicit service of human rights investigations. The unlikely marriage of recent, violent history in Latin America with American forensic expertise was a watershed moment in war crimes and human rights investigations. The Katyn Forest exhumation forty years earlier had demonstrated that it was possible to pull together an international group of scientists to remove large numbers of bodies from a mass grave. It had also shown that those scientists could remain largely objective in the face of massive political consequences and pressures. When Snow and his forensic teams began opening graves in Argentina in 1984, the forensic anthropologist knew that the only precedent for what they were doing was the exhumation in the Katyn Forest.²²⁰ But unlike the Katyn Forest investigation, the exhumations in Latin America took place in a particular moment—one of increasing talk of human rights, of globalization, and of increasing access and deference given to NGOs—that allowed them to mark the beginning of an era of war crimes investigations that incorporated forensic science.

The visit of AAAS scientists to Argentina in 1984 came on the heels of a massive expansion of the number and influence of NGOs. Many others have noted the proliferation of non-governmental organizations in the 1970s. Daniel Sargent points out in an essay about the United States' role in the increasingly global character of that decade that between 1968 and 1981, the number of non-governmental organizations that existed globally more than doubled.²²¹ The increased number of NGOs came with increased influence—of both the individual and of these

²¹⁷ Joyce and Stover, *Witnesses from the Grave*, 25-31; see also S. Vaughn, "Making it: forensic anthropologist Clyde Snow committed to exhuming the truth," *Los Angeles Times*, March 25, 2001.

²¹⁸ Douglass C. Kneeland, "272 dead as Jet Crashes on Takeoff in Chicago; No Survivors Found", *The New York Times*, May 26, 1979.

²¹⁹ Joyce and Stover, *Witnesses From the Graves*, 102-104.

²²⁰ Clyde Snow, in conversation with the author, October 2011.

²²¹ Sargent, "The United States and Globalization in the 1970s," 53. Jan Eckel notes a similar phenomenon in his synthetic essay that closes a recent collection on human rights in the 1970s, offering an overview of that decade's slew of newly established human rights organizations and the scope of their motivations and goals. See Eckel, "Explaining the Human Rights Revolution of the 1970s."

organizations—over national politics; the role played by this “global community,” as Akira Iriye terms it, in the creation of a global system of moral values and in the dissemination of an international idea of human rights, is commonly accepted in recent historiography on human rights.²²² As Michael Cotey Morgan writes, in this period “individual citizens, acting alone and through new NGOs, pressured governments to adhere to certain standards of conduct.”²²³ Kenneth Cmiel adds that “the 1970s activists were less interested in international law, more invested in publicizing cruel behavior to shame perpetrators into change.”²²⁴ The group of American and Argentine forensic scientists who feature in this chapter fit this mold: gathering court admissible evidence was only one of three motivations for their work. The first, and far and away the most important motivation, was to help the families of the Disappeared, who wanted to know the fate of their loved ones. Gathering court admissible evidence, and setting the historical record straight, though important, were secondary to a concern for the families. It is in the visit of American scientists to Argentina that one can properly begin to speak of forensic investigations in the context of human rights.

In these early moments of interaction between American forensic scientists, human rights activists, and NGOs, this chapter outlines a burgeoning relationship that would prove to be a fruitful one both in Argentina—establishing the Argentine Forensic Anthropology Team, an organization that remains on the forefront of forensic science in post-conflict situations three decades later—and in creating a model for international forensic involvement in other cases of suspected war crimes or human rights violations. Yet, insofar as the Argentine example can be considered a successful endeavor in isolation and as a precedent, the story told in this chapter should not be construed as representative of the whole of forensic investigations that followed. Rather, as Cmiel writes, the story of forensic investigations in the context of human rights efforts—“efforts to make claims across borders in the name of human rights”—follows that of the larger whole, in which “activism has been intermittently strong but not sustained.”²²⁵ The strength of the effort in Argentina did set a precedent for sustained participation of forensic scientists in the project of human rights.

* * *

THE EVENTS THAT set the stage for Liliana Pereyra’s murder, and that of so many others, began with a 1976 military coup that overthrew Argentina’s President Isabel Martinez de Peron.²²⁶ Peron’s government was threatened by the military, which had steadily increased its autonomy from the government and its control over the population under Peron’s tenure,²²⁷ and by civilian unrest over

²²² See, e.g. Ishay, *The History of Human Rights*; Lauren, *Visions Seen*.

²²³ Morgan, “The Seventies and the Rebirth of Human Rights,” 243.

²²⁴ Cmiel, “The Recent History of Human Rights.” Cmiel’s essay includes an overview of historiographical takes on NGO involvement in the global project of human rights activism. For a more recent take, albeit one that focuses on the role played by international governmental and non-governmental organizations in this project, see Maul, “The International Labour Organization and the Globalization of Human Rights,” 301-2.

²²⁵ Cmiel, “The Recent History of Human Rights,” 127.

²²⁶ Robben, *Political Violence*, 175.

²²⁷ Robben, *Political Violence*, 175.

the country's economic crisis, rising inflation, and unemployment. As a result, Argentina's people stopped believing in the competence of their government. The military feared that the dissatisfied populace and economic hardship would provide a breeding ground for communist politics and revolutionary ideas, thus adding strength to the problem of leftist violence and unrest. On March 24, 1976, military leaders took matters into their own hands.²²⁸

In the early morning hours of that day, Peron got into a helicopter at the Casa Rosada, Argentina's presidential mansion, which lies on the eastern end of the *Plaza de Mayo*. She ordered the pilot to fly to her residence, the presidential compound in the suburb of Olivos. Midway through the flight, the pilot told her he had to make an emergency landing at Buenos Aires' Aeroparque airport instead. When the helicopter landed at 12:45 am, a bloodless and relatively decorous *coup d'etat* took place. Military leaders met Peron on the tarmac and informed her that she was no longer the President of Argentina. Three hours later, military leaders announced, "the country is under the operational control of the Joint Chiefs of Staff of the Armed Forces," known for short as the *Junta*, the joint coalition.²²⁹ Within 10 hours, that joint coalition was sworn in as equal power sharers of the new military government. The *Junta* included three leaders of Argentina's military: General Videla of the Army—one of the men convicted in part by Snow's forensic evidence at the *Juicio* in 1985—Admiral Emilio Massera of the Navy, and Air Force Brigadier General Orlando Ramon Agosti.²³⁰ Later that day, the United States recognized the *Junta* government as the legitimate leadership of Argentina.²³¹

The newly installed military government sought to eliminate what it saw as Argentina's fifth column, the communist guerrilla groups they believed to be the country's "enemy within." They launched a *proceso de reorganización nacional*, or national reorganization process, known for short as "*el proceso*."²³² Arrests of labor leaders and leftist activists started immediately.²³³ Although Argentina *had* experienced a considerable amount of violence and terrorism from guerrilla groups prior to the installment of the *Junta* government, the scope of that violence was dwarfed by the response: a *guerra sucia*, a "dirty war," in which all forms of state violence and repression—including kidnapping, torture, and murder—were considered justifiable actions in the name of state security.²³⁴

The historical and historiographical literature that deals with the commission and aftermath of Argentina's Dirty War is vast. A common theme in the vast swath historical and historiographical literature that deals with the commission and aftermath of Argentina's Dirty War is a condemnation of the violence and repression; another is the recognition that the actions of the government and military caused widespread physical destruction and psychological trauma among the Argentine population. There is less agreement among historians—as is the case with other historical acts of mass violence and tragedy, such as the Holocaust²³⁵—about the root causes of the violence: namely,

²²⁸ Andersen, *Dossier Secreto*, 68-172; see also Robben, *Political Violence*, 175-6.

²²⁹ Robben, *Political*, 176.

²³⁰ "Argentine Junta Under Army Chief Assumes Control," *The New York Times*, March 25, 1976.

²³¹ "U.S. Recognizes Government," *The New York Times*, March 25, 1976. Accessed May 27, 2015.

²³² Feitlowtiz, *Lexicon of Terror*, ix.

²³³ "Argentine Junta Under Army Chief Assumes Control," *The New York Times*, March 25, 1976.

²³⁴ Feitlowtiz, *A Lexicon of Terror*, ix.

²³⁵ This question is at the heart of the so-called *Historikerstreit* and *Sonderweg* debate in German history, which centered around the question of whether the Nazi period and the Holocaust should be seen as an aberration in German history—

whether those traumatic events should be seen as a continuity of Argentine history, or as an aberration from it.²³⁶ There is also debate over what, precisely, the Dirty War *was*. Influential historical takes have argued that the Argentine military's claim that the country was in a state of war was a fabrication, a smokescreen created to mobilize fear and to justify its widespread acts of violence;²³⁷ more recent scholarship, however, has taken more seriously the notion that the guerillas posed a military threat to the state.²³⁸

Disappearances were at their height for the first three years of the *Junta* government's rule, and began to slow in the early years of the 1980s,²³⁹ as the country's foreign debt spiraled upward from \$8 billion in 1976, at the time of the *coup* that unseated President Peron, to \$36 billion in 1981—and the cost of living increased 18,500 percent. Austerity measures imposed in 1981 only served to anger the population. Strikes, protests, and demonstrations rose up across the country, as citizens' anger over their living conditions overcame fear of their government.²⁴⁰ In the end, it was a botched war over an archipelago in the South Atlantic called the Falkland Islands—to Argentines, the *Islas Malvinas*—that would bring the military government to its knees. The islands had been the site of a dispute between London and Buenos Aires for a century and a half, and in mid-1982 the *Junta* President, General Leonardo Galtieri, ordered the military re-stake Argentina's claim.²⁴¹ The British, though, had no intention of letting the Falkland Islands go, and dispatched eight destroyers and frigates, two aircraft carriers equipped with fighter planes, and two nuclear-powered subs.²⁴² Outnumbered and outgunned both on the water and in the air, the Argentine troops holding the Malvinas surrendered to the British on June 14. After the military's embarrassing defeat, the peaceful protests for democracy and better working conditions across Argentina turned to violent anti-military demonstrations. In June 1982, the newly installed President—the third in four months—promised that democratic elections would be held in late 1983.²⁴³

Argentines filed to polling stations on October 30, voting in Raul Alfonsin of the leftist Radical Civic Union party. President Alfonsin's inauguration was greeted with considerable optimism and hope. He began to clean house, retiring generals, reversing the military's amnesty policies, and prosecuting and sentencing some high profile generals involved in the worst of the dirty war's abuses. These efforts to investigate and prosecute the country's war criminals would be stopped abruptly by an attempted *coup* in 1987.²⁴⁴ But in the early and mid 1980s, the Afonsin

a period in which the country was seized by a criminal organization—or as a the inevitable result of either German nature or of German history. This debate is summarized (and, from the perspective of many, laid to rest) in the final chapter of Eley and Blackbourn, *The Peculiarities of German History*.

²³⁶ See Lewis, "The Right and Military Rule," 148. The belief that Argentina's Right had a longer history—one in which the Dirty War's clash between Right and Left is a logical continuity—is present in Lewis' more recent book on the subject, *Guerillas and Generals*.

²³⁷ See Caiati and Frontalini's influential work, *El Mito*.

²³⁸ See Lewis, *Guerillas and Generals*.

²³⁹ Brysk, *Politics of Human Rights*, 38.

²⁴⁰ Manzetti, *Institutions*, 51.

²⁴¹ Robben, *Political Violence*, 314.

²⁴² Richard Thornton argues that the strength of the British response to Argentina's provocations in the Malvinas was motivated by a concern—shared with the United States—over Argentina's military ambitions for nuclear weapons. See Thornton, *Falklands*.

²⁴³ Lewis, *Guerillas and Generals*. 190-1.

²⁴⁴ Clifford Krauss, "Raul Alfonsin, Ex-President of Argentina, Dies at 82," *New York Times*, Apr 01, 2009.

government's overtures towards making amends with the past allowed for the first archaeological investigation of mass gravesites done since Katyn, and the first to be undertaken explicitly for the purpose of investigating and exposing human rights violations.

Just five days after he took office on December 10, 1983, Human Rights Day, the newly elected President Alfonsín announced the creation of the National Commission on the Disappearance of Persons (*Comisión Nacional sobre la Desaparición de Personas*), better known by its acronym, CONADEP. The Commission's primary purpose was to investigate the fate of Argentina's Disappeared and victims of other human rights violations under the *Junta* government, but its position was fraught from the outset. Human rights groups had asked for a parliamentary commission, with real power to subpoena witnesses—in particular, people accused of perpetrating violence under the junta. What the Alfonsín government set up was, rather, an advisory panel with the power only to review what facts they could find, interview witnesses willing to talk, and then transfer any cases they found to the court system, which was comprised of judges who had, at the least, made serious moral and legal compromises under the previous military government.²⁴⁵

Even so, some of the survivors groups thought CONADEP went too far in some ways. In particular, a powerful organization called the *Madres de la Plaza de Mayo*, the Mothers of the Plaza de Mayo violently opposed CONADEP's attempts to exhume and identify skeletons. As their name implied, the *Madres* mothers of disappeared youth who gained notoriety for their weekly protests and demands for truth outside the Casa Rosada on the Plaza de Mayo. The group's slogan, "*aparición con vida*," return them alive, didn't allow for returning their loved ones as skeletons.²⁴⁶ Although all signs pointed to the graveyard, the Mothers refused to believe their children were dead. They wanted CONADEP to find the clandestine detention centers where they believed their children were still being held, not to go looking for their graves.²⁴⁷

At first, CONADEP's investigation did not plan to exhume graves at all. Rather, it sought to stop grave digging that had begun in the last months of *Junta* rule before the 1983 election. These digs were the ones Snow referred to in his testimony at the *Juicio*: the use of digging equipment to open graves, resulting in mixed bones and destroyed evidence. Yet even so, the piles of bones and bullet-riddled skulls provided visual proof to many Argentines of the reality and horror of the military government's program of disappearances.²⁴⁸ In 1984, CONADEP's leader, an elderly and revered Argentine philosopher and novelist named Ernesto Sabato, sought help in conducting responsible exhumations to provoke a similar reckoning while respecting the bodies of the dead and preserving evidence. Sabato reached out to Eric Stover, the Director of the Science and Human Rights Program at the American Association for the Advancement of Science (AAAS). Argentina had trained forensic experts, Sabato wrote to Stover. What they did not have were experts who were trained in forensic anthropology, radiology, and odontology, among other specialized disciplines. Could AAAS send such a team of experts to assist CONADEP's exhumations?²⁴⁹

²⁴⁵ Guest, *Behind the Disappearances*, 383.

²⁴⁶ Rosenblatt, *Digging*, 93-97.

²⁴⁷ Guest, *Behind the Disappearances*, 386.

²⁴⁸ Robben, *Political Violence and Trauma in Argentina*, 327.

²⁴⁹ Eric Stover in conversation with the author, June 2014.

Sabato's letter arrived on Stover's desk in the early months of 1984, but it was not the first request he had received from Argentina. In an interview many years later, Stover remembered that three women wearing brightly colored skirts and *pañuelos*, headscarves traditional in their native Argentina walked into his office in October 1983.²⁵⁰ The women were three of the *Abuelas de la Plaza de Mayo*, the organization Coche Pereyra had joined in her search for her grandchild. The *Abuelas* had read about a new technique in *El Diario del Día*, a newspaper in her hometown of La Plata. It said scientists could identify someone by analyzing their blood.²⁵¹ "We see that you can do this genetic analysis to determine paternity," to match parents to their children, she said in Spanish to Stover, who spoke fluently, thanks to his Chilean-born mother. Can that be done for grand-paternity?²⁵²

Stover had directed AAAS's Science and Human Rights program for three years; previously, he had worked the Latin America desk at Amnesty International, an organization that worked to secure the release of prisoners held for political reasons around the world—prisoners like the *Abuela's* children had been before their murders. He sympathized with the *Abuelas'* quest to find their grandchildren. But he held them he simply knew little about paternity testing. "I really knew nothing," he remembered later. "I had no idea if it could be used for grand-paternity, or much else about how you determine paternity, quite frankly."²⁵³ What he did have, however, was a personal interest in Argentina's *Desaparecidos* and their fate under the military *Junta* government. On the day of the coup that overthrew President Peron's government and ushered in the *Junta*, Stover was in Jujuy Argentina with his brother, enjoying the festival of *Carnival*. As part of the initial roundup of dissidents, the Americans were arrested that day and thrown into a local jail. All night long, Stover recalled in an interview years later, other young men were brought to the cells around them. Some had been badly beaten. As the hours ticked by, the two brothers, both fluent in Spanish, talked to the new arrivals, some of whom had been beaten up and tortured. In the morning, a guard pulled the two Americans out of the cell, and told them they would be released. Stover recalled that he was very worried the Argentine men they had spent the night with might later be "disappeared."²⁵⁴

Stover promised the *Abuelas* that he would do all he could to help them. He first called the Executive Director of the American Academy of Forensic Sciences, a multi-disciplinary forensic organization based in Colorado Springs, Colorado. The director suggested that Stover contact Snow, the forensic anthropologist, who was by then well known for his forensic work, both in domestic murder cases and in the wake of plane crashes. Snow was also no stranger to work in Latin America. In the 1960s, he had traveled to the rugged canyons, high altitude plains, and mountains of the northwest Mexican province of Chihuahua, in search of an indigenous group known as the Tarahumara, whose people were renowned for their almost super-human distance running abilities. Snow's study looked at both anthropological and physiological reasons for the Tarahumara's athletic prowess, and determined that much of their ability stemmed from the culture and lifestyle rather than from innate physical capabilities; Tarahumara boys who were removed from their traditional communities and sent to boarding schools, for example, performed no better on running tests than

²⁵⁰ Eric Stover in conversation with the author, June 2014.

²⁵¹ Joyce and Stover, *Witnesses from the Grave*, 238.

²⁵² Eric Stover in conversation with the author, June 2014.

²⁵³ Eric Stover in conversation with the author, June 2014.

²⁵⁴ Eric Stover in conversation with the author, June 2014.

their non-Tarahumara Mexican peers. The increasing integration of the Tarahumara into mainstream culture, the study found, would likely result in the loss of running talent.²⁵⁵

Stover called Snow at his home in Norman, Oklahoma, and briefly outlined CONADEP and the *Abuelas*' request for help in finding, exhuming, and identifying the bodies and graves of *Desaparecidos*. Stover remembered later that Snow interjected in his gravelly Texas baritone, "Let me get a cup of coffee."²⁵⁶ When he returned, Stover asked if the anthropologist knew anything about Argentina's Disappeared. He had read some articles in *Newsweek*, Snow said. He listened while Stover outlined what he knew about the Disappeared, and the forensic challenges CONADEP was trying—and largely failing—to surmount. Stover remembered their lengthy conversation was punctuated by extended pauses, as Snow returned to the coffee pot to refill his cup. Snow, Stover would realize later, spent his days in an isolated ranch house, and simply liked talking on the phone. Yet the conversation must have intrigued him. At the end, Stover remembered the anthropologist told him, "Let me think about it and I'll get back to you."²⁵⁷

By 1984, when Stover called him about Argentina's *Desaparecidos*, Snow had retired from working for CAMI, and was working full time as a forensic consultant, traveling across the American west to assist with murder and unnatural death investigations.²⁵⁸ Assisting with forensic investigations in Argentina may have offered him the possibility of merging his interests: Latin America, the forensic puzzle posed by large numbers of unidentified skeletons, and solving murders. The work in Argentina promised to combine all three. Snow called Stover back shortly after their first conversation. "Okay," Stover remembered him saying. "I'm interested. Let's see what kind of a forensic team we can pull together."²⁵⁹

Stover had already begun working on it. He had gotten in touch with Cristian Orrego, a Chilean biochemist and geneticist who worked at AAAS's Committee on Scientific Freedom and Responsibility. Orrego thought that new discoveries in genetic sequencing would make it possible to connect the *Abuelas* with their grandchildren. This hunch led him to Mary-Claire King, a geneticist at the University of California, Berkeley.²⁶⁰ Decades later, King would be best known for discovering the BRCA1 gene, which dramatically increases a female carrier's chances of developing breast or ovarian cancer. In the early 1980s, though, she was on the cutting edge of another type of genetic research: HLA DNA analysis, a method of tracing paternity that she had stumbled upon as a result of her early research on breast cancer.²⁶¹ King had been trying to pinpoint the genetic carrier of breast cancer, the gene that could explain why some families—mothers, daughters, and grandmothers—could all be afflicted by the disease. This led her to try to isolate genes that were passed from parent to child in each successive generation. A side effect of this research might be, she thought, the ability to use those genes to match parents with their grandchildren.²⁶² She proposed they try to use the genes that code a group of twenty-odd proteins known as HLA, human

²⁵⁵ Balke and Snow, "Anthropological and Physiological Observations on Tarahumara Endurance Runners."

²⁵⁶ Eric Stover in conversation with the author, June 2014.

²⁵⁷ Eric Stover in conversation with the author, June 2014.

²⁵⁸ Interview with Clyde Snow, August 21, 1988, ESPA.

²⁵⁹ Eric Stover in conversation with the author, June 2014.

²⁶⁰ Joyce and Stover, *Witnesses From the Grave*, 238-239.

²⁶¹ Davies and White, *Breakthrough*, 63.

²⁶² Davies and White, *Breakthrough*, 63.

leukocyte antigens. HLA proteins congregate on the surface of white blood cells in patterns specific to the person to whom they belong. This allows the body to distinguish between native cells and foreign, potentially threatening ones; the body can see the pattern and decide, “this is me,” or “that is not me.” HLA’s patterns are passed genetically from generation to generation. Using those patterns, King thought she would be able to determine if a child was biologically related to an *Abuela*.²⁶³ Once Snow and King were on board, the forensic team started to coalesce. Even so, the challenge of identifying bodies would not be a small one. Many of the disappeared had been taken from their homes, places of work, or from the streets, and detained at an unknown location. After they were killed, the bodies were often disposed of at morgues across the country, without any identifying information, as N. N., *ningun nombre*.

In June 1984, the AAAS-formed seven member forensic team flew into Buenos Aires, and then drove thirty-five miles south along the Argentine coast, to the regional capitol city of La Plata. Along with Snow, Stover, and the geneticists Mary-Claire King and Cristian Orrego, the team were a forensic odontologist named Lowell Levine, and two forensic pathologists: the Medical Examiner from Nassau County, NY, Leslie Lukash; and Luke Tedeschi, the Clinical Professor of Pathology at Boston University’s School of Medicine.²⁶⁴ The group’s intention was to meet with judges, morgue workers, human rights activists, and relatives of the disappeared over the course of a ten-day trip, and to draw up recommendations for how CONADEP should go about exhuming and identifying the remains of many thousands of disappeared.²⁶⁵ Yet, for some of them, this was the beginning of a decades-long project of deploying forensic expertise and investigation in the service of human rights documentation and investigation; one that would consume Snow until his death in 2013.

The American scientists traveled some five hundred miles north and west, toward Cordoba, a city at the geographical center of Argentina. Cordoba alone had more than 800 reported disappearances during the seven years of military *Junta* rule. A graveyard on the outskirts of the city, the San Vicente Cemetery, was reported to hold many of them. This cemetery had come to the attention of CONADEP’s investigators in the early days of the commission’s existence thanks to a strange complaint that had been submitted to Argentina’s federal government four years earlier, in 1980. The Argentine military government had established clandestine detention centers (CDCs), where the newly disappeared would be sent to await their fate. The largest CDC in Cordoba bore the strangely beautiful name *La Perla*. “The Pearl” was the last stop for an estimated 3,000 *desaparecidos*, many of whom were shot nearby, loaded into trucks, and delivered to the city’s Judicial Morgue, which operated out of a public hospital. The morgue staff was responsible for checking the bodies in, recording them as N.N., and checking them out for burial in mass graves in San Vicente.²⁶⁶

When the AAAS forensic team arrived at the Judicial Morgue, they were shocked at the conditions: the lack of refrigeration that resulted in an overpowering smell of decay, and an infestation of maggots and other insects. Lukash, the Nassau County Medical Examiner, said later,

²⁶³ Davies and White, *Breakthrough*, 63.

²⁶⁴ Snow, Levine, Lukash, Tedeschi, Orrego, and Stover, “The investigation of the human remains of the ‘disappeared’ in Argentina,” 297-299.

²⁶⁵ Joyce and Stover. *Witnesses from the Grave*, 231.

²⁶⁶ Joyce and Stover. *Witnesses from the Grave*, 232.

“that foul-smelling place was disgusting.”²⁶⁷ But by 1984, conditions had markedly improved over the late 1970s and early 1980s, when the morgue regularly received truckloads of corpses in the middle of the night from La Perla. In 1980, the morgue’s staff wrote a letter to Argentina’s president to complain.²⁶⁸

It is impossible, Mr. President, to give a true picture of what we experienced when we opened the doors of the rooms where the corpses were kept. Some of the bodies had been stored for more than thirty days without any sort of refrigeration. There was a cloud of flies and the floor was covered in a layer about 10.5 centimeters deep in worms and larvae, which we cleared away with buckets and shovels. The only clothes we had were trousers, overalls, boots and gloves, while some people had to do the work in their ordinary clothes. Mouth masks and caps were provided by the hospital administration thanks to the sub-director, as we did not have any.²⁶⁹

The tone of the morgue workers’ letter seems to recognize their precarious position as some of the only Argentines outside of the military government to have explicit knowledge of the government’s program of executions. Despite the working conditions, the letter emphasized that the morgue staff “did not hesitate in carrying out the task as ordered.” They were also careful to emphasize that their complaint was limited to the insufficient staffing and facilities, not the number—or the source—of the bodies. “It should be noted,” the letter added, “that most of these bodies were of subversive delinquents.”²⁷⁰ The government ignored the content of the letter, and instead focused on its form: the whole of the morgue staff was cited for bypassing the normal chain of command, as they had skipped the government’s middle authorities. They were summarily dismissed.²⁷¹

When the American scientists visited four years later, they were unsure of what to make of the now-reinstated morgue staff and their at least tacit compliance with the government’s executions. “They had to know what was going on,” Lowell Levine, the team’s dentist, remembered. “Nobody could be that dumb.” At the same time, though, they tried to reserve their judgment. With the number of freshly dead, bloody bodies arriving at the morgue to be checked in, examined, and buried, Lowell thought, “an extra one”—that is, one of the morgue staffers who protested too much—“wasn’t going to make any difference.”²⁷² In Argentina, as in many post-conflict situations in the decades to come, the presence of not just scientists but international scientists played an important role in ensuring that investigations were reliable. Among the Argentine forensic community, a number of pathologists had turned a blind eye to the violence, and it was nearly impossible to tell who kept quiet out of fear, and who had done so out of approval.

The scope of the forensic work required in Argentina was larger than anything the American forensic scientists had previously dealt with in their careers. The day before they were scheduled to

²⁶⁷ Joyce and Stover, *Witnesses from the Grave*, 234.

²⁶⁸ Olmo, Ginarte, Bisso, Puerto, and Fondebrider, “A Mass Grave in Argentina: The San Vicente Cemetery,”

²⁶⁹ *Nunca Mas: The Report of the Argentine National Commission on the Disappeared*, 231-232.

²⁷⁰ *Nunca Mas: The Report of the Argentine National Commission on the Disappeared*, 231-232.

²⁷¹ Olmo, Ginarte, Bisso, Puerto, and Fondebrider, “A Mass Grave in Argentina: The San Vicente Cemetery,”

²⁷² Joyce and Stover, *Witnesses from the Grave*, 234-5.

leave, Snow and the others held a press conference in Buenos Aires, where they encouraged the Argentine government to put all forensic work on hold until domestic and international forensic experts could establish the forensic infrastructure necessary to responsibly exhume bodies from clandestine graves. “One grave excavated using archaeological techniques,” the team told the press, “would yield more evidence than several hundred demolished by bulldozers.”²⁷³ The team called for a moratorium on exhumation until a proper team of experts could be trained to conduct the exhumation. Months later, the Argentine government halted the exhumation and mandated CONADEP to train a team to takeover the task.

The process of training the next generation of forensic scientists had already begun during the AAAS team’s first visit to Argentina. After the final press conference, a young Argentine judge approached Snow, to ask him to demonstrate how an exhumation should be done. He had heard of a gravesite where, according to witness affidavits, the remains of a thirty-three year old woman named Rosa Rufina Betti de Casagrande would be found. The judge said he would order the exhumation if Snow would agree to examine and try to identify the bones. Snow agreed, but he had a problem: there was no one to help. Members of the AAAS team had already left the country, and, despite phone calls to virtually everyone in Argentina’s forensic community—anthropologists, archaeologists, and pathologists—he found no one willing to help; likely, the country’s forensic scientists were either themselves implicated in the killings, or afraid of the consequences of helping to expose them.²⁷⁴

Finally, a young Argentine medical student named Morris Tidball, who had worked with Snow as a translator during the AAAS team’s visit, offered to recruit some of his university friends from the Anthropology major. Snow was skeptical, but he told Tidball he was willing to meet them.²⁷⁵ The small group of students who gathered at in the lobby of Snow’s hotel that evening included Mercedes—Mimi—Doretti, the daughter of a well-known radio personality who helped to author CONADEP’s 1984 report. Patricia Bernardi—known as Pato, a friend of Mimi’s—and Luis Fondebrider arrived with some applicable knowledge: they were advanced anthropology students with considerable experience doing fieldwork on prehistoric sites, and understood the basics of how to conduct an archaeological dig.²⁷⁶ The students were more receptive to the idea of helping Snow than any of the established scientists he had spoken to, but they were still unsure if it was a good idea to get involved.²⁷⁷ Snow sensed that the students were wary of talking about the skeletons in their country’s closet with a mysterious *gringo* scientist who proposed they dig them up. So he took the conversation slowly. He led the group to a restaurant around the corner, where they all gathered around a table and ordered dinner. Over beer, cigarettes, and—in classic Argentine style—large pieces of grilled meat, Snow was careful to maintain an informal demeanor to put everyone at ease. Bernardi remembered that Snow “talked to us in a very simple way and very directly.” Still when he started talking about what they were going to do, the students couldn’t hide their shock. “As soon as he described exactly what we would be doing, I stopped eating.” Snow told a journalist three years

²⁷³ Joyce and Stover, *Witnesses from the Grave*, 241.

²⁷⁴ Christopher Joyce and Eric Stover, *Witnesses from the grave: The Stories Bones Tell* (Boston: Little Brown, 1991), 242.

²⁷⁵ Stephen G. Michaud, “Identifying Argentina’s Disappeared,” *The New York Times*. Dec 27, 1987.

²⁷⁶ Stephen G. Michaud, “Identifying Argentina’s Disappeared,” *The New York Times*. Dec 27, 1987.

²⁷⁷ Stephen G. Michaud, “Identifying Argentina’s Disappeared,” *The New York Times*. Dec 27, 1987.

later that he was fully aware of the gravity of what he was asking of the students. “They were worried about what might happen to them. And I couldn’t tell them not to worry.”²⁷⁸ Political considerations aside, the students had more basic concerns. What would a mass grave look like? Would it be nasty? Would it be depressing? Would they be technically capable of the work? Snow answered the last question honestly. “Well,” he said, “you’re better than nothing.” The students agreed to give it a shot.²⁷⁹

Two days later, the students piled into the backseat of a car, dripping wet from a cold June rain. Snow handed them improvised tools he picked up the day before at a hardware store: trowels, paintbrushes, and spoons. When they arrived at the grave, the students were dismayed to find the area surrounded by victims’ families, and, worse, police officers. “At first we were very scared,” Bernardi later told a journalist. “We knew as soon as we started, we would be marked.”²⁸⁰ Ignoring their fear, they followed Snow’s lead and settled in to work. Snow, along with Fondibrider and Bernardi, who had some experience as archaeologists, showed the others how to use their trowels and spoons to carefully scrape away dirt from any evidence in the grave. Any time they found a piece of physical evidence, they cleaned, examined, and photographed it before assigning the object a number and entering it into a catalogue. It took seven painstaking hours of crouching in the cold rain and wind to fully expose the skeleton. Then it took them all night in a morgue nearby to examine the bones, and to compare them to medical records of the suspected victim, Rosa. Eventually, Snow determined that they didn’t match. The bones on the table belonged to another *desaparecida*; Rosa was somewhere else.²⁸¹ But even without a positive identification, the day was a success. The students were inspired. They didn’t know it at the time, but this was the first meeting of the *Equipo Argentino de Antropología Forense* (the Argentine Forensic Anthropology Team, or EAAF). More than thirty years later, Fondibrider and Bernardi are full time senior investigators for EAAF in Buenos Aires, and Doretti is EAAF’s New York-based senior investigator.²⁸²

DURING THE AAAS visit, geneticists Mary-Claire King and Cristian Orrego traveled to La Plata, a coastal town about 35 miles south of the city of Buenos Aires, with representatives of the *Abuelas* at the organization’s headquarters. The *Abuelas* told the geneticists that an estimated 145 children were either kidnapped with their parents or born in detention facilities.²⁸³ By the early 1990s, the *Abuelas* would revise that number upward, to 210 children.²⁸⁴

When young, pregnant women were arrested and “disappeared,” some were kept alive until they delivered their babies. The infamous detention center at ESMA, the Navy Mechanics School, was one of the main places these women would be held. At ESMA, prisoners were held on the school’s third floor, in a unit known as the hood, *capucha*, because prisoners were kept shackled and hooded in a row of small cells. Across from the hood was the maternity ward: two small rooms

²⁷⁸ Stephen G. Michaud, “Identifying Argentina’s Disappeared,” *The New York Times*. Dec 27, 1987.

²⁷⁹ Stephen G. Michaud, “Identifying Argentina’s Disappeared,” *The New York Times*. Dec 27, 1987.

²⁸⁰ Stephen G. Michaud, “Identifying Argentina’s Disappeared,” *The New York Times*. Dec 27, 1987.

²⁸¹ Joyce and Stover, *Witnesses From the Grave*, 248.

²⁸² “Contact Us,” *Equipo Argentino de Antropología Forense*. http://eaaf.typepad.com/contact_us/.

²⁸³ Lonardo, Darlu, Baur, Orrego, and King, “Human genetics and human rights: Identifying the families of kidnapped children.”

²⁸⁴ King, “An application of DNA sequencing to a human rights problem.”

where pregnant women were sometimes tortured and often left to give birth handcuffed and blindfolded.²⁸⁵ After birth, the mother would be killed, and the child given up for adoption, many placed with childless police or military families, or civilian couples friendly with the regime.²⁸⁶ Others were adopted into unwitting, innocent families abroad, families who believed they were adopting an Argentine orphan, not a kidnapped child of murdered parents.²⁸⁷

With the election of President Alfonsín in 1983, it suddenly became possible for family members of these missing children to investigate their disappearances, and to bring charges against the suspected kidnapers. But the Grandmothers quickly realized it was not sufficient to simply establish—through adoptive records, or through witness testimony that a couple did not have a pregnancy before suddenly having an infant—that a child was likely a kidnapping victim. It was only part of the equation to establish who a child was not. It was also necessary to determine, through objective means, who that child *was*.²⁸⁸

Mary-Claire King's work with genetics offered one way positive identification of these children: tracking human lymphocyte antigens (HLAs), the same genetic marker King had used in her lab to track breast cancer's transmission from mother to daughter. After meeting with the *Abuelas*, King partnered with an immunogenetics laboratory in Buenos Aires, which agreed to help with the identification project. The following year, lobbying by the *Abuelas* led to the establishment of the National Genetic Data Bank, a repository where surviving relatives of children thought to be missing could have their blood sampled and compared to other samples—in particular, to those from children suspected to have been among those kidnapped. Over the next decade, the data bank collected more and more samples, allowing them to match an increasing number of children with their genetic families. Even in the early years of the genetics program, Argentine courts were able to return what the geneticists considered to be “a large number” of children to their biological relatives.²⁸⁹

In other genetic research, the mid to late 1970s had also brought with them breakthroughs that brought new possibilities and potentialities: namely, a new technique called DNA sequencing.²⁹⁰ In 1974, British scientist Sydney Brenner published a paper detailing a decade of work cross breeding mutated and normal *C. elegans*, a millimeter-long worm. Brenner observed a connection between the genotype—the worm's genes, normal or mutated—and its phenotype, the physical characteristics it displayed; from this, he was able to find hints as to the mechanisms for transmitting the genetic information.²⁹¹ Ten years later, Alec Jeffreys, a geneticist at the University of Leicester in Britain, made an additional discovery: patterns in the human genome, he found, appeared to be passed down from generation to generation. This discovery opened the door for “DNA fingerprinting,” a technique that would make it possible for scientists to determine paternity and

²⁸⁵ Robben, *Political Violence*, esp. 230, 248, 292-8; Larry Rohter, “A Struggle with Memories of Torture Down the Street,” *New York Times*, March 8 2005.

²⁸⁶ Robben, *Political Violence*, 292.

²⁸⁷ Lonardo, Darlu, Baur, Orrego, and King. “Human genetics and human rights: Identifying the families of kidnapped children.”

²⁸⁸ King, “An application of DNA sequencing to a human rights problem,” 118.

²⁸⁹ King, “An application of DNA sequencing to a human rights problem,” 118.

²⁹⁰ García-Sancho, “Genetic Information in the Age of DNA Sequencing.”

²⁹¹ Brenner, “The Genetics of *Caenorhabditis elegans*,” 71–94.

family lineage. At first, Jeffrey's technique worked only with blood, the richest source of genetic material.²⁹² But by the early 1990s, scientists would be able to use bone to produce enough DNA to sequence. This discovery would change forensic science forever: using the bones of the dead, science could reveal who they had been in life.²⁹³

In 1985 in Argentina, however, blood was enough: the *Abuelas* sought their living grandchildren, whose blood ran in their veins. But the work of using that blood—and the DNA it contained—to connect the two generations was fraught with ethical considerations. However complicated forensics can be when working with the dead, the forensic scientists were about to learn that it is all the more complicated working with the living. In 1991, Mary-Claire King wrote about the scientific successes of the genetic work she and others had done on behalf of the *Abuelas* and Argentina's missing children in an article for the journal *Molecular Genetic Medicine*. But she also reflected on the ethical implications of opening the Pandora's box of secrets, lies, and pain for the adoptive family, for the biological family, and most importantly, for the child. Many of Argentina's missing children who were positively identified through DNA testing had happy endings. Others, especially in cases where the adoptive family was unaware of the circumstances of the child's birth, were more painful. Coche Pereyra, Liliana's mother, would have one of the latter experiences when her biological grandchild was identified in 2007; then 30 years old, her grandson saw the mandatory DNA testing and government efforts to change his name to that of his birth parents as a violent assault on his family and his identity.²⁹⁴ Even so, these forensic geneticists saw their work with the *Abuelas* as a crime-solving act, similar to those performed by the forensic anthropologists and archaeologists who dug up the graves. In this case, though, the crime was not of murder; rather, it was kidnapping. Under any other circumstances, King wrote in an article published in 1991, "a child would not be left with kidnapers or their accomplices regardless of his or her age at abduction," and regardless of how much time the child had spent with the kidnapers since the crime. "Is the situation different in Argentina because kidnapping occurred on a large scale?"²⁹⁵

While the geneticists used blood in their search for the living, the anthropologists continued to build up enough expertise and infrastructure in the country to search for the bones of the dead. In 1988, Snow and a team of Argentine forensic scientists—including Bernardi, Doretto, and Fondibrider, the students who had helped Clyde with the first Argentine exhumation in 1984—began the team's first major mass grave exhumation at the Avellaneda Cemetery, seven miles south of Argentina's capital. The cemetery itself is well kept and orderly, with rows of headstones

²⁹² Aronson, *Genetic Witness*, 13.

²⁹³ Scientists had found "significant amounts" of DNA in archaeological bones, and were beginning to examine that genetic material by 1991. See, e.g. Hagelberg, and Clegg, "Isolation and Characterization of DNA from Archaeological Bone."

²⁹⁴ Alan Iud, a lawyer for the *Abuelas*, said Hilario's case was new territory for the group. "This had never happened to us before in the about dozen cases of compulsory DNA testing we've pursued." He staunchly stood by the process. "There is no way we can allow the courts to validate a false surname that is the result of an aberrant crime against human rights." In an interview in 2011, Hilario told a reporter the trials were an important mechanism for exposing the truth, but he opposed the idea of mandatory DNA orders. "Each story has its own peculiarities," he said. So each grandchild should be able to decide for himself or herself if they want to have their DNA tested. Uki Goni, "Child of Argentina's 'disappeared' fights to keep his name," *The Guardian*, September 23, 2011.

²⁹⁵ Mary-Claire King, "An application of DNA sequencing to a human rights problem," 128.

decorated with candles, pictures and flowers.²⁹⁶ On the cemetery's back wall, though, stands a gate that leads to a very different scene. The gate opens into a small, walled-off courtyard that lies between the back wall of the cemetery and a city street. On the east side of the courtyard stands a squat, run-down concrete building. On the street side of the courtyard is a gate to the street made of solid sheet metal, wide and tall enough to allow a van to pass through—often full of bodies of *desaparecidos*.²⁹⁷ The rectangular courtyard, twelve meters long by twenty-four meters wide, and the adjacent building were given the moniker “Sector 134.” The building served as a makeshift morgue and storage center for bodies, where workers checked bodies in, recording their gender, estimated age, and cause of death before assigning them the distinction N.N., no name, and checking them out for burial in common pits. The pits were often left open for months, up to a year or more, with only a small layer of dirt piled on top of each layer of bodies. With the numbers expected, it hardly made sense for the workers to seal the graves each time.²⁹⁸

After 1979, the *Junta*'s killing regime backed off, and with it the number of vehicles carrying bodies into Avellaneda's Sector 134 slowed to a trickle. Dirt was shoveled over the remaining pits, and the courtyard was all but abandoned. Photos from the forensic investigation in 1988 show weeds, shrubbery, and tall grasses growing wild, obscuring the ground.²⁹⁹ But its contents would not remain secret forever. In October 1986, a former *Junta* military officer admitted that a journalist who had disappeared in July 1977 was buried in Sector 134, leading a judge to order a forensic investigation of the exact place the officer pointed to within the courtyard. A preliminary dig of a rectangle two meters long by one meter wide turned up not one skeleton, but many: a common grave, and telltale signs that there might be others, such as large sunken areas dotting the courtyard. This initial forensic report was submitted to Argentina's court system in early 1987, and the court subsequently requested the Argentine Forensic Anthropology Team to exhume the entirety of the courtyard.³⁰⁰

When EAAF scientists—including Snow, Fondibrider, and Bernardi—arrived at Sector 134 in 1988, the first order of business was to clear the overgrown underbrush down to dirt level, so that the scientists could form a plan of attack with the exhumation. They chopped through the underbrush with machetes, and then used shovels to dig out the roots of the larger bushes and plants. Photographs from the exhumation show the results of their labor: the before pictures a wild mass of shrubbery; the after, a dirt lot, covered in square or rectangular depressions that looked too even, and too regularly shaped, to be natural variations in the ground.³⁰¹ Regularly shaped sinkholes like these, the scientists wrote in their report, can be telltale signs of disturbance in the soil, such as

²⁹⁶ Crossland, “Violent Spaces: conflict over the reappearance of Argentina's Disappeared,” 124.

²⁹⁷ Bernardi and Fondebrider, “Forensic Archaeology and the Scientific Documentation of Human Rights Violations: An Argentinian Example from the Early 1980s,” 213.

²⁹⁸ Bernardi and Fondebrider, “Forensic Archaeology and the Scientific Documentation of Human Rights Violations: An Argentinian Example from the Early 1980s,” 221.

²⁹⁹ Bernardi and Fondebrider, “Forensic Archaeology and the Scientific Documentation of Human Rights Violations: An Argentinian Example from the Early 1980s,” 218-19, Figure 9-1, Figure 9-2.

³⁰⁰ Bernardi and Fondebrider, “Forensic Archaeology and the Scientific Documentation of Human Rights Violations: An Argentinian Example from the Early 1980s,” 212-13.

³⁰¹ Bernardi and Fondebrider, “Forensic Archaeology and the Scientific Documentation of Human Rights Violations: An Argentinian Example from the Early 1980s,” 218-19, Figure 9-1, Figure 9-2.

that caused by digging and refilling a pit with bodies and soil. Over time, the pressure of the earth and the decomposition of the bodies causes the newly stirred up dirt to settle, packing more densely and ultimately sinking noticeably below the level of the undisturbed dirt around it.

The scientists measured the courtyard, and mapped out a grid pattern that they would use to organize their digging and to map out their findings. They divided the courtyard into excavation quadrants, each two and a half meters square, with a half meter border between each quadrant, to allow the scientists to walk between the pits and kneel beside them without stepping on bones or disturbing whatever evidence they found. Eventually, if they determined that any of these walkways lay over a skeleton or possible grave, the walkway would also be excavated, although ropes would be used to demarcate the borders of the nearby quadrants to ensure the whole was recorded properly. In the end, 336 skeletons were unearthed in the ground in Sector 134, some buried alone, others tangled together in common graves, now comingled sets of bones.³⁰²

The EAAF members who exhumed Sector 134 of the Avellaneda Cemetery were a very different group of forensic scientists than the ones who accompanied Snow to the cemetery in La Plata during his first visit to Argentina in 1984, although many of the names were the same. After that first, single exhumation, Snow and AAAS held a course the following summer: five weeks of intensive training for Argentine forensic scientists on proper procedures for exhuming, handling, and performing identifications of skeletal remains.³⁰³ Although EAAF was still a young organization at the time of the Avellaneda exhumation, in 1988, it was pioneering a path for forensics in the service of human rights. The scientists borrowed much from the field of archaeology—in the grid patterns they mapped out over the dig site to organize their work, and the slow, methodical, and careful recording and then extraction of artifacts from the graves in Sector 134—and from forensic science as it was commonly used in individual murder cases. Yet EAAF's exhumation at the Avellaneda Cemetery was the first attempt to apply those techniques to a mass grave in the service of a greater project of human rights: of documenting and collecting evidence of large scale, state crime.³⁰⁴

Snow would later say that the innovations from the Argentina exhumations were not scientific or technological, at least not primarily. “People have dug up skeletons before but not like this in the forensic context,” and not on the scale of an exhumation like that in Avellaneda. “Its the archaeology of the thing,” he said.³⁰⁵ Yet the archaeological forensic methods employed by the scientists were a revolution in some sense—the beginning of a sustained forensic effort to systematically exhume skeletons for identification. The forensic team set up a makeshift laboratory in an old morgue building adjacent to the Avellaneda cemetery, where EAAF scientists worked with skeletons from Sector 134 until the year 2000: cleaning and labeling the bones, examining them for sex, age, injuries and cause of death, preserving teeth and bones for DNA analysis, and gluing skulls back together. Finally, at the turn of the new millennium, EAAF received governmental approval to move the skeletons to a laboratory at their headquarters in Buenos Aires, where they were able to

³⁰² Bernardi and Fondebrider, “Forensic Archaeology and the Scientific Documentation of Human Rights Violations: An Argentinian Example from the Early 1980s,” 220, Figure 9-3.

³⁰³ Eric Stover in conversation with the author, July 2014.

³⁰⁴ Bellelli and Toobin, “Archaeology of the Desaparecidos.”

³⁰⁵ “Interview with Clyde Snow, April 4, 1988,” ESPA.

conduct more extensive evaluations of each individual. There, EAAF scientists began to compile a dossier for each person: biological profiles that were uploaded into a searchable database, where profiles of Sector 134 skeletons could be compared against those of missing persons.³⁰⁶

* * *

THE FOUNDER OF the *Abuelas*, Maria de Mariani, had had a very personal reason for seeking a way to definitively match grandmothers to grandchildren. Her daughter-in-law and three-month-old granddaughter had been home alone on the evening of November 24, 1976, when armed government troops surrounded the family's house. Maria's daughter-in-law grabbed her baby and tried to flee, but a soldier noticed and took down the mother with a volley of gunfire. The father, de Mariani's son, had already gone underground at the time of his wife's death, fearing for his own life. He had reason to be afraid: seven months later, he was shot and killed in the street outside a friend's house. The government prevented de Mariani from burying either her son or daughter-in-law, and would provide no information about the baby, three-month-old Clara Anahi. Finally, a police official told the persistent de Mariani, off the record, that Clara Anahi was alive. Bolstered by the news, she set out on her own to track down her toddler grandchild. Soon, she came across other women doing the same thing. Together, they formed the *Abuelas de la Plaza de Mayo*.³⁰⁷

On Clara Anahi's fifth birthday, in 1981, de Mariani wrote a card for her granddaughter. "I will find you, my Anahi, don't worry. Your little grandmother will recognize you because she carries you in her blood. You are the daughter of my dead son."³⁰⁸ The grieving grandmother's words about knowing her granddaughter because of their shared blood were figurative. But within a few years, advancements in genetics would make her words literal: the blood and bone of surviving family members could be matched with the blood and bone of the missing, both living and dead. The ability to use genetics to identify the bodies of the dead was a tantalizing possibility that galvanized the interest of survivor groups in forensic science, leading the *Abuelas* to seek out the help of the American scientific community.

But it was not just for purely scientific reasons that the *Abuelas* thought to contact a foreign organization for support. The 1970s are well documented as a moment of transition from the national to the global, one at which the international community had to reach for something outside of the national state to deal with problems that transcended borders: pollution, famine, war, and, not least, human rights.³⁰⁹ In the 1970s and 1980s, human rights organizations and practitioners—often, as in the case of Snow and the Argentine scientists, under the banner of non-governmental organizations—also worked to transcend the state, leveraging their internationalism and disconnectedness with governmental actors to advance an international system of rights and accountability that transcended national sovereignty and governmental actors. Even more so, it was a counter example to the historiographical narrative that privileges international human rights

³⁰⁶ Bernardi and Fondebrider, "Forensic Archaeology and the Scientific Documentation of Human Rights Violations: An Argentinian Example from the Early 1980s," 230.

³⁰⁷ Guest, *Behind the Disappearances*, 405-406.

³⁰⁸ Robben, *Political Violence*, 292.

³⁰⁹ See, e.g. Sargent, "The United States and globalization in the 1970s."

organizations over local groups, such as the *Abuelas*. The Argentine case was a test case of how domestic groups were able to leverage the expertise of foreign groups to support their causes. When AAAS representatives arrived at the airport in Buenos Aires, as they did regularly throughout the late 1980s, the members of the *Abuelas* who greeted them were not primarily interested in the international support those Americans brought. Rather, the *Abuelas* wanted the bottles of reagent they carried, which would allow Argentine labs to conduct DNA analyses. The story is not so much one of international organizations mobilizing local groups as it was one of those local groups leveraging international interest for their own purposes.

In the Katyn case, the involvement of international experts and organizations was entirely the work of the Nazi government; a contrivance of Goebbels' propaganda ministry intended to imbue the propaganda project with a sense of transparency and validity. In part because of the baldly propagandistic aspect of the Nazi project at Katyn, the ICRC was reticent to participate, and ultimately declined to be involved. The late 1960s and 1970s represented a sea change. Cmiel writes that there was "an explosion of interest in human rights in this period," driven by the establishment and growth of core human rights organizations, Amnesty International in particular. Amnesty was not the first international NGO to promote human rights issues; it was, however, the first major group to push human rights activism and thought out of the realm of lawyers and government officials and diplomats, and into the hearts and minds of ordinary citizens.³¹⁰ Organizations like Amnesty International and Helsinki watch, later to become Human Rights Watch, had established themselves as valuable participants in human rights investigations and movements, and as such were even more equipped to bring the sense of transparency and objectivity that led Goebbels to request the involvement of international experts and organizations in the Katyn Forest exhumation. These two mammoth organizations in particular helped to pave the way for the involvement of international organizations—what Akira Iriye terms the "global community," meaning both international governmental and non-governmental organizations—in national affairs.³¹¹ "The central question" for this new global community and for the individual activists, such as the scientists in this chapter, Michael Cotey Morgan writes, "was how to reconcile territorial sovereignty with universal values."³¹²

By the 1980s, the existence of international organizations and their involvement in human rights work had considerable precedent, but the question of how to reconcile the relationship between the human rights organizations and individual workers on the ground with national governments and national groups remained a live one. The story told in this chapter has highlighted the negotiation this required.

The Argentine example touched off a string of forensic projects around the globe, many of them performed or facilitated by the same people who had come together in Argentina to make that forensic effort successful, like Clyde Snow, Eric Stover, and the students who became the core members of the EAAF. The Argentine case not only laid the literal groundwork for these exhumations—in establishing a core group of forensic experts with experience working on mass

³¹⁰ Reynolds, *One World Divisible*, esp. Chapter 14; Morgan, "The Seventies and the Rebirth of Human Rights," 242.

³¹¹ See Iriye, *Global Community*; Maul, "The International Labour Organization and the Globalization of Human Rights, 1944-1970," 301.

³¹² Morgan, "The Seventies and the Rebirth of Human Rights," 243.

graves, with families, and in environments that are sometimes hostile to their work—it also laid the groundwork in terms of precedent: the EAAF would be called upon to conduct forensic efforts in other countries in Latin America, and then in other parts of the globe by governments and other authorities who saw the promise of forensic science in helping to reveal the crimes of the past.

CHAPTER 4

Brazil, 1985



ON JUNE 6, 1985, Brazilian police stood guard as three gravediggers sunk their shovels and picks into the soil of the Nossa Senhora de Rosario cemetery in Embu das Artes, a suburb of Sao Paulo. A cluster of journalists stood watching as they dug into the hard, dry, red clay for the better part of an hour. Finally, one of their picks hit the wooden lid of a coffin. The latches had rusted shut, making the lid immovable. Sao Paulo's Federal Police Chief, a mustachioed man named Romeu

Tuma, ordered one of the gravediggers to break the coffin's lid open. The man brought his pickaxe down on the lid of the coffin, scattering shards of wood. A second blow broke through the coffin's lid, and through the delicate facial bones of the skull—the pick must have landed on the wood of the coffin lid directly above the skeleton's face—but none of the inexperienced gravediggers or police officials realized immediately that their methods had done such grievous damage.³¹³ The contents of the coffin were now exposed, equal parts macabre and banal: a collection of dusty, brownish bones that used to be a person, and pieces of faded fabric that used to be clothing.³¹⁴ Dr. Jose Antonio de Mello, the assistant director of the police's forensic laboratory, knelt by the open grave. The doctor picked up each bone from the coffin and placed them in a white plastic box. He left out the skull—now missing its nasal bones and eye sockets—and instead held it up for the assembled crowd of journalists, photographers, and locals to see.³¹⁵

The gravestone at the head of the coffin gave a name to the bones: Wolfgang Gerhard, it read. The German name was etched into the stone. Deceased six years earlier, in 1979. But the Brazilian authorities had good reason to believe it was not Gerhard that lay beneath the headstone, and that in his place lay the remains of Josef Mengele, one of the most wanted war criminals from the Nazi Holocaust of Europe's Jews. A week earlier, May 31, 1985, the West German police had raided the house of Hans Sedlmeier—a close childhood friend of Mengele's who served as a factory manager for the Mengele family in their hometown of Günzburg, in southern Germany—and turned up photocopies of letters from Mengele, as well as from people named Wolfram and Lisolette Bossert, and Gita Stammer, all from mailing addresses in Brazil. One, from Wolfram Bossert, suggested the truth. Bossert wrote to inform Sedlmeier, “with deep sorrow,” of “the death of our common friend.”³¹⁶

Based on this tip, the Brazilian authorities put the Hungarian-born Stammer and the Austrian Bossert couple under surveillance, keeping tabs on them for four days until West German authorities landed in Sao Paulo to assist with the investigation. Upon their arrest, the Bosserts began by insisting they had known the man in question only as Peter Hochbiolet; that they had never heard the name Mengele. Within two hours, they cracked, and told the police about the grave in the Embu cemetery. The next day, the gravediggers smashed through the lid of the coffin. Once it was open, Police Chief Tuma held the shattered skull up for the television cameras to beam around the world. “This,” he said, “is Josef Mengele.”³¹⁷

Dr. Josef Mengele was one of the most storied and mythologized figures from the Nazi Holocaust of European Jews. He was a medical doctor who also held a doctoral degree in physical anthropology, a favored field of Nazi scientists interested in finding scientific justification for Aryan racial superiority. He joined the SS in 1938, and spent the war as the garrison physician at

³¹³ This section owes a great debt to the book *Witnesses from the Grave: The Stories Bones Tell*, by Christopher Joyce and Eric Stover. Other details are from documents in Stover's personal archive, which he graciously shared with me, or from interviews and conversations between Stover and the author.

³¹⁴ Joyce and Stover, *Witnesses From the Grave*, 149.

³¹⁵ Joyce and Stover, *Witnesses From the Grave*, 150.

³¹⁶ Posner and Ware, *Mengele*, 315. Posner, an attorney, and Ware, a British journalist, were given exclusive access to Mengele family papers, which allowed them to write a comprehensive account of Mengele's years in hiding in Latin America. See also Chapter 3, “The Hunters and the Hunted,” in Stover, Peskin, and Koenig, *Hiding in Plain Sight*, 58-98.

³¹⁷ Posner and Ware, *Mengele*, 317.

Auschwitz, the notorious Nazi concentration camp in western Poland. There, he received acclaim from Nazi authorities for his supposed treatment and eradication of a typhus outbreak, and for his medical treatment of Nazi prisoners held in the camp.³¹⁸ But the inmates told a very different story. After the war's end, people who had survived the horrors of Auschwitz told stories about the handsome, well-groomed and genteel young officer who greeted them on the train platform. With a flick of his wrist, that man could determine their fate. A gesture to the left—in German, *links*—would send them to the gas chambers, to their deaths; right, *rechts*, and they would be sent to the barracks to join a work crew and live, if only for the moment.³¹⁹ In this dispassionate, matter of fact manner, Mengele sent an estimated 400,000 people their deaths, earning him the nickname *Todesengel*, the “Angel of Death.” Mengele was just as infamous for the horrifying medical experiments he did on children he kept from the gas chambers, on twins in particular.³²⁰

After the war, Mengele slipped away, seemingly into thin air, evading Allied authorities, and then investigators and Nazi hunters in the United States, West Germany, and Israel for decades. Nuremberg Chief Prosecutor Robert Jackson told the US Congress in October 1946 that Mengele could be considered “well and truly dead.”³²¹ But many, especially Mengele’s victims, refused to believe it; they wanted the *Todesengel* to be found alive, “to torture him” as he had so tortured them at Auschwitz. If he was dead, they wanted to see the body. By the early 1980s, Jewish groups around the world had gotten frustrated over what was now a four decades-long failure to find Mengele. In 1984, the Simon Wiesenthal Foundation, founded by its namesake, a Holocaust survivor and perhaps the world’s most relentless Nazi hunter, released documentation that revealed the US’s failure to identify Mengele when they held him in a detention camp immediately after the war, and that the American military had allowed one of the most wanted and most evil Nazis to simply walk free. The Foundation had placed a huge bounty on the doctor’s head: one million dollars. Others followed suit. In short order, the reward for Mengele grew to almost \$3.5 million.³²²

In this atmosphere of renewed enthusiasm for tracking down Mengele, news of the Brazilians’ announcement provoked excitement as well as skepticism. Officials in the Israeli government expressed a belief that the bones were part of an elaborate ruse cooked up by Mengele and his associates in response to recently-revived efforts to track him down by Israel, the United States, and West Germany. But basking as they were in the glow of the international media spotlight, the Brazilian Police and government insisted that the bones were undoubtedly Mengele’s. Chief Tuma told the press that the exhumation in Embu confirmed what many in the international community had long suspected: the Nazi doctor, infamous for his evil, was “well and truly dead,”³²³ borrowing his words from the American Prosecutor at Nuremberg. But Sao Paulo’s medical examiner, Dr. de Mello, warned that definitive proof of that statement would not be easy to come

³¹⁸ “Evaluation of the SS Hauptsturmführer Dr. Josef Mengele,” Auschwitz, 19 August 1944, ESPA.

³¹⁹ Klaus Weigrefe, “Auschwitz’s ‘Angel of Death’: Looking for Nazi Doctor Josef Mengele,” *Der Spiegel International*, April 21, 2011.

³²⁰ For accounts of Mengele’s crimes during his time at Auschwitz, see Kubica, “The Crimes of Josef Mengele”; Mozes-Kor, “Mengele Twins and Human Experimentation: A Personal Account,” 53–59.

³²¹ Alan Riding, “Key Man in Mengele Case: Romeu Tuma,” *New York Times*, June 16, 1985.

³²² Stover and Joyce, *Witnesses from the Grave*, 157.

³²³ Alan Riding, “Exhumed Body in Brazil Said to be Mengele’s,” *New York Times*, June 7, 1985; Alan Riding, “Man in the News; Key Man in Mengele Case: Romeu Tuma,” *New York Times*, June 16, 1985.

by. “It will be very, very hard to make a positive identification of the body as being that of Mengele,” he told the press.³²⁴ Ultimately, that very difficult job would fall to a team of international forensic experts.

* * *

IT HAD BEEN a year since Snow’s first visit to Argentina in June of 1984, a productive year in which he and other American scientists had seen major achievements: training a team of young Argentine forensic scientists, conducting exhumations and identifying a number of remains, assisting the *Abuelas* in their search for their grandchildren, and helping to secure convictions at the *Juicio* trial. Snow had not yet unpacked his bags from his latest trip to Argentina, where he testified at the *Juicio* about finding and identifying Liliana Pereyra’s bones, when news flashed around the world about the possible discovery of Mengele’s body. The importance of the find itself, scientifically, historically, and geopolitically was immediately apparent, and he didn’t hesitate to book another flight south. Within a week after the discovery, the media’s spotlight on the Embu grave and the bones it contained, as well as the infamy of Josef Mengele himself, brought together the largest and most international forensic investigation since the Katyn Forest exhumation—far larger and more international a team than the Argentina exhumations had occasioned. This time, though, the forensic investigators’ intent was not to investigate a human rights violation, or to identify its victims. It was to identify the bones of a human rights *violin*. Despite this inversion of roles, the Mengele investigation was the next major moment for forensics in war crimes investigations and human rights work, one that would catapult the science into the minds and the imaginations of the global public.

This chapter tells the story of the international forensic effort to determine whether or not the bones found in the Embu des Artes Cemetery in Brazil belonged to the infamous Nazi war criminal Josef Mengele. As was the case with the exhumation in the Katyn Forest, the skeleton in Brazil was one of international interest. Mengele was wanted by various nations around the world for different reasons: Israel, to try him for his crimes against the Jewish people as they had Eichmann; West Germany, to locate the German national and punish him for crimes committed on German soil and in Germany’s name; and the United States, as part of a comprehensive Nazi-hunting program run out of the Department of Justice. And as with the Katyn Forest exhumation, the Brazilian authorities sought to incorporate these international experts and officials for the from The coordination and cooperation between these interested nations—along with Brazil, which found itself involved as the nation where Mengele had lived and died—to carry out this investigation exceeded even the not-inconsiderable effort that took place between the AAAS, CONADEP, and the *Abuelas* in Argentina. The scale of the crimes Mengele committed inspired international cooperation between individual nations and a collective understanding of moral responsibility to establish the facts of the historical record.

In some very basic ways, the investigation into the supposed Mengele skeleton is the outlier story in this dissertation. It does not fit neatly into the mold established by the others: of

³²⁴ Vincent J. Schodolski, “Old Bones Add a New Chapter To ‘Angel of Death’ Mystery,” *Chicago Tribune*, June 9, 1985.

international scientists exhuming a grave and examining its contents in order to reconstruct and document the circumstances of a large-scale crime or human rights violation. Mengele was a human rights abuser, not a victim. The purpose of exhuming and identifying his skeleton was not to assemble evidence of a large-scale crime for later prosecution, but to determine whether the perpetrator of such crimes was still alive enough to be prosecuted. Yet the Mengele investigation belongs in this genealogy because it provided a chance for the forensic scientists who were pioneering work at the crossroads of human rights and forensics—some of the same ones who had spent some of the previous year working with the *Abuelas* and CONADEP in Argentina—to work on a global stage. Mengele’s notoriety got the attention of the international media, who flocked to Brazil to cover both the scientists’ work during the investigation itself and its results. In this sense, the Mengele investigation was a major moment in the integration of forensic science into human rights work, because it exposed the international public to forensic techniques and set a precedent for the cooperation of national governments with NGOs and individual scientists.

Other scholars have also situated the investigation in Brazil in similar histories: of forensic science,³²⁵ of international involvement in human rights investigations, and in the context of international human rights work and prosecutions. Thomas Keenan and Eyal Weizman have argued that the international examination of Mengele’s skeleton marked a turning point in the evidentiary foundations of international criminal and human rights investigations. In the last two decades of the twentieth century and in particular after the Mengele investigation, forensic evidence came to occupy a central role in international courtrooms, Keenan and Weizman claim, even displacing witness testimony and documents as the preferred form of evidence in international criminal trials. The Mengele investigation served as “the birth of a *forensic* approach to understanding war crimes and crimes against humanity.”³²⁶

While this chapter agrees with Keenan and Weizman that the Mengele investigation is worthy of a place in a genealogy of forensic human rights work, it reaches a different conclusion about what, precisely, that place is, and about its import. Although Mengele raised the public profile of forensic evidence, and could be said to have introduced an international media and public to the scientific promise—and to the visual appeal—of skeletal remains as evidence, it is less clear that it was a moment of change in the actual use of evidence; in the twentieth century’s last twenty years that Keenan and Weizman cite, there is little evidence one can marshal to prove there has been an abandonment of witnesses or documents in favor of bodies and bones.³²⁷ Even the Mengele investigation, taken in isolation, hardly provides conclusive support for their argument. In the end, it was not the bones that provided the most conclusive or convincing evidence of whether or not the bones belonged to the Nazi war criminal. Although the forensic experts were convinced of their conclusion—that the skeleton did, in fact, belong to Joseph Mengele—there were others,

³²⁵ See Chapter 11, “A Southern Exposure,” Stover and Joyce, *Witnesses From the Grave*, 215-249.

³²⁶ This turn toward forensic evidence, they argue, was the third major trend in evidentiary strategies in international trials of war criminals. The first such trend, a reliance on documents, characterized the Nuremberg Tribunal; the second, witness testimony, was the hallmark of the Eichmann trial. This, what Keenan and Weizman call the “era of the witness” seen at Eichmann gave way in the 1980s, they write, when attention turned toward the third era, that of the “thing.” Keenan and Weizman, *Mengele’s Skull*, 12-13.

³²⁷ As discussed in the Introduction to this manuscript, xxi-xxii.

particularly in the US and Israeli government, who remained skeptical that the scientists had correctly assessed the bones.³²⁸ And in the end, the physical presence of Mengele's bones—the “forensic aesthetics,” as Keenan and Weizman's subtitle proclaims—would not be final determining factor; that would be left to a substance invisible to the naked eye: DNA. It was blood, rather, that settled the question. Blood drawn from Mengele's son, a German lawyer named Rolf, was tested and found to match DNA extracted from the bones of the skeleton.³²⁹

Unlike Keenan and Weizman, this chapter views the Mengele investigation not as the beginnings of a new evidentiary era in which physical evidence came to the forefront. It was, however, a moment where the possibilities of forensic evidence were placed in the international spotlight, and where the investigators consciously understood that their work was on display for the scrutiny of the international public. The Mengele investigation also put both traditional and cutting edge forensic techniques in the international media spotlight; one, I argue, which demonstrated for an international public the value forensic investigation offered in helping to solve major crimes.

It also deserves a place in a history of forensic science in the service of human rights even though it is a distinct divergence from the history of the international human rights movement and activism more generally. This was an investigation not of human rights abuses or their victims, but one devoted to examining and identifying the physical body of an infamous war criminal. Yet this chapter posits that the Mengele investigation does, in fact, belong in this genealogy because it was a chance for people who were already combining forensic science and human rights work—as the group of American scientists from AAAS had in Argentina, the previous year—to display the possibilities of forensic science on a global stage. It was also a defining moment in the sense that it had to navigate the boundaries of national and international cooperation, one of the primary challenges facing the still burgeoning “global community” of human rights.³³⁰ Because of Mengele's notoriety and the high-profile nature of the investigation in the global press, it brought international and national groups, both governmental and non, together in Brazil, forcing and facilitating the same kind of interaction that other, more explicitly human rights investigations also required.

* * *

THE BRAZILIAN AUTHORITIES brought the skeleton to the surface of the Embu graveyard surrounded by news cameras and a jostling throng of reporters on the morning of June 6, 1985. At 9:30 A.M. EDT, shortly after news outlets around the world picked up news of the Brazilian exhumation, New York Medical Examiner Leslie Lukash got an urgent phone call from Senator Al

³²⁸ A source inside the Department of Justice's Office of Special Investigations (OSI) said later that the scientists' failure to find evidence of osteomyelitis—a bone abnormality that Mengele reportedly suffered from as a child, which is discussed in more detail below—all but invalidated their conclusion that the bones were Mengele's. “Off the record interview, 3 October 1988,” ESPA.; Members of the Senate Subcommittee on Juvenile Justice convened three hearings over the course of 1985 to “inquire into Dr. Mengele's whereabouts.” (*Searching for Dr. Josef Mengele*)

³²⁹ Weizman, “Osteobiography: An Interview with Clyde Snow,” 71; Alice Siebert, “His Secret Out, Rolf Mengele Talks About His Father,” *The Chicago Tribune*, June 30, 1985.

³³⁰ The term coined by Akira Iriye to indicate both governmental and non-governmental organizations who began thinking and acting globally in the 1970s and early 1980s, requiring them to negotiate a space *vis a vis* national governments and the idea of national sovereignty, in *Global Community*.

D'Amato's office. New York's Republican Senator was "deep[ly] concern[ed] over the fact that there is an alleged body in the ground in Brazil said to be that of Josef Mengele." Would the Medical Examiner go down immediately to oversee the Brazilian authorities' investigation and examination of the skeleton?³³¹ Lukash told Senator D'Amato that he would, but not alone. He wanted to put together a forensic team. He offered a list of three names to accompany him: Snow, along with a forensic dentist named Larry Levine, and John Fitzpatrick, a forensic radiologist, both of whom had also made the trip to Argentina the previous year as members of Snow's team. Senator D'Amato's team put in a request with the Justice Department to get all of the men clearance to go to Brazil.³³²

The next evening, Snow appeared on *Nightline*, ABC's nightly late-night news show, alongside the Nazi-hunters Simon Wiesenthal and Beate Klarsfeld. That night, the *Nightline* episode title reflected the exact question on everyone's mind: "Is Josef Mengele dead?" The host, a young Charlie Gibson turned first to the forensic anthropologist. "Dr. Snow," he asked, "can six-year-old bones really talk to you?" Snow, sitting in the newsroom of KOCO, the ABC affiliate station in Oklahoma City, looked at the small monitor where Gibson's face beamed in live from ABC's Washington, D.C. headquarters.³³³ The forensic anthropologist answered, yes, they can. In general, the age of the bones have no bearing on the ability of a scientist to read what they have to say. "We're able to work with skeletons that are hundreds or even thousands of years old," he said. His concern in this case had nothing to do with their age, and everything to do with their last 36 hours. Ever the straight shooter, Snow did not mince his words. "Judging from the film clips I saw, we had a nonprofessional person out there, either a policeman or a gravedigger, digging up the bones, and during this process I'm sure that a great deal of damage was done to the skeleton." That damage, Snow feared, would make it impossible to determine if the bones really belonged to Mengele. He plowed on. "Having a policeman dig up a skeleton is a little bit like having a chimpanzee do a heart transplant. [...] small items, such as teeth, bullets, other personal effects, which could be helpful in identification, do tend to get lost."³³⁴

Snow's "chimpanzee" comment may have been warranted, but it made the Department of Justice's decision about who to send to the grave more difficult. On Lukash's recommendation, New York Senator D'Amato had requested the Department of Justice provide clearance for Snow, Fitzpatrick, and Levine to accompany Lukash to Sao Paulo. The Justice Department rejected Snow. A source inside the DOJ's Office of Special Investigations, the wing set up to find and prosecute Nazi war criminals, would later speculate in an off the record interview that the *Nightline* interview was the reason for Snow's rejection.³³⁵ Levine was accepted as a member of the DOJ team, and got his "marching orders from the Attorney General," Edwin Meese. Meese impressed on the dentist the objectives of the mission: to determine "whether it was Mengele, or whether you couldn't tell one way or another." For his part, Levine doubted that the trip was worth their time. "What went through my mind," he said in an interview years later, "was 'This has gotta be the biggest bunch of

³³¹ *Searching for Dr. Josef Mengele*, 156.

³³² "Interview with Leslie Lukash, August 4, 1988," ESPA.

³³³ Joyce and Stover, *Witnesses from the Grave*, 161.

³³⁴ "Is Josef Mengele Dead?" ABC Nightline Transcript, Show # 1055, June 7, 1985. In possession of the author.

³³⁵ "Off the record interview, 3 October 1988," ESPA.

bullshit that ever existed.” For their part, the scientists suspected the whole thing was a hoax. But there was only one way to find out.³³⁶

Meanwhile, the Simon Wiesenthal Foundation had stepped in and offered to fly Snow, Fitzpatrick, and Lukash, along with Eric Stover, to Brazil to participate in the examination of the remains. The scientists agreed to go, leaving Levine, the forensic dentist who had promised himself to the DOJ team, dismayed at their defection.³³⁷ In the end the Americans sent more than one team to Brazil, with no shortage of tension between them.³³⁸ Levine’s choice to go with the Department of Justice team had offended Lukash as much as Lukash’s decision to go with Wiesenthal had offended Levine. The dispute was far more than a simple professional or logistical one. Lukash had overseen Levine’s training and early career development, and considered him both a mentee and a protégé. The former mentor felt snubbed, and the mentee felt abandoned. On the flight from Oklahoma City to Miami, Snow lit a cigarette and pondered what the tension between the two American teams would mean for the investigation. He would say in an interview later that he knew there were likely be enough problems to for the Americans to deal with that they didn’t need to bring their own. It would be better, he thought, to have all of the Americans in the same tent pissing out, as the saying goes, rather than half of them outside it, pissing in.³³⁹

One problem the forensic scientists would face in Brazil was the public’s and the media’s interest in the investigation. The onslaught began before the American scientists even left the United States: at a layover in Miami on June 14—just over a week after the grave was opened in the Embu Cemetery—the media circus started: the scientists were accosted by photographers and journalists as they deplaned and walked through the terminal to find their connection to Brazil, a 10:30 P.M. Pan-Am flight that would take them the four thousand miles south to Sao Paulo.³⁴⁰ When the plane touched down at 9:25 A.M. local time the next morning, the Americans were greeted with an even more enthusiastic media barrage. As their taxi pulled up in front of the Sao Paulo Hilton Hotel, another mob of Brazilian reporters charged the car, sending the scientists running for the safety of the lobby, in their haste entrusting their bags to the goodwill of their driver.³⁴¹ Levine remembered in a later interview, “the media were so intense, I couldn’t even leave the hotel to go for a walk. Every time you went out, you were like the Pied Piper.”³⁴²

That afternoon, June 15, all of the international scientists assembled in a room on the second floor of the Sao Paulo Medical Legal Institute, a non-descript, grey building that squatted next to the city’s main hospital. All told, there were some thirty scientists and investigators. In addition to the American Wiesenthal and DOJ teams, there was a West German team of forensic investigators, a group of Israeli Mossad agents, and a host of Brazilian scientists and police.³⁴³ As they waited for Police Chief Tuma to arrive with information about how the Brazilians planned to organize the

³³⁶ “Interview with Lowell Levine in Albany, NY, August 5-6, 1988,” ESPA. For published source, see Joyce and Stover, *Witnesses from the Grave*, 162.

³³⁷ *Searching for Dr. Josef Mengele*, 156

³³⁸ “Interview with Leslie Lukash, August 4, 1988,” ESPA.

³³⁹ Joyce and Stover, *Witnesses from the Grave*, 165.

³⁴⁰ “June 15, 1986,” ESPA.

³⁴¹ Joyce and Stover, *Witnesses from the Grave*, 167.

³⁴² “Lowell Levine, on ‘low profile’ during investigation,” ESPA.

³⁴³ *Searching for Dr. Josef Mengele*, 156

investigation, Stover—who joined the Wiesenthal team as a representative of AAAS and as the team’s rapporteur—took notes on the details of the morning. The scientists milled around the room, sipping tiny cups of sweet and strong Brazilian coffee that kept appearing by the tray-full, and introducing themselves.³⁴⁴ The American scientists were not entirely sure what to make of the others’ motivations. The fact that the Israelis didn’t send a forensic expert with their team—rather, they sent a group of jumpy Mossad agents who insisted on commuting in from Rio every day, and switched hotels every night—seemed significant to Levine.³⁴⁵ “The Israelis knew it was Mengele from day one,” he told Stover in a later interview. But politically, for the Israelis—who wanted to try Mengele as they had Eichmann—that was the worst possible outcome; Levine speculated to Stover in an interview that the Israelis didn’t bring a forensic scientist because “they didn’t want to put someone in the embarrassing spot of having to deny what was scientifically true”—that Mengele was dead—for political reasons.³⁴⁶

When Tuma finally arrived, he laid out the plan for the exhumation before what must have been a highly caffeinated roomful of scientists. Stover recorded that Tuma told the group that afternoon that he “[felt] at ease with experts around me.”³⁴⁷ But Tuma and the Brazilian investigators were already largely convinced that the bones were Mengele’s. Prior to the scientists’ arrival in Brazil, Brazilian and West German authorities had already collected considerable evidence, including detailed depositions from Wolfram and Lisolette Bossert, the Austrian and Hungarian émigrés whose letters were found in the West German search of the house of Hans Sedlmeier, a longtime friend of the Mengele family. Stammer and the Bossert couple told Brazilian and West German investigators that they became close friends with a man they knew as Peter Hochbielet, a Swiss national. It was only later they realized that their friend wasn’t Peter the Swiss at all, but instead an infamous Nazi war criminal.³⁴⁸

Stammer told them she saw a photograph in a newspaper of Josef Mengele in 1962, accompanied by an article that detailed his war crimes. She realized with a start that he bore more than a passing resemblance to Hochbielet, who was serving as the manager for her family farm outside of Sao Paulo. When she confronted him on the matter, Mengele admitted his real identity.³⁴⁹ The Bossert couple met Mengele in 1969 through a mutual friend named Wolfgang Gerhard, a diehard Nazi who had taken it upon himself to protect Mengele.³⁵⁰ Gerhard left his identity card with Mengele when he returned to Germany in 1975, bestowing a new, official identity upon the Nazi fugitive. Gerhard also arranged a burial location next to his own wife, telling the cemetery administrators to expect the death of an elderly Gerhard relative. What he was really preparing for, though, was the inevitability that something would have to be done with Mengele’s body.³⁵¹

³⁴⁴ “Basic Biological Data on Mengele,” ESPA.

³⁴⁵ “Interview with Lowell Levine, August 5-6, 1988,” ESPA.

³⁴⁶ “Interview with Lowell Levine, August 5-6, 1988,” ESPA.

³⁴⁷ “[Romeu] Tuma Briefing, 6/15,” ESPA.

³⁴⁸ William D. Montalbano, “New Testimony on Mengele Revealed: Nazi Lived With Her Family in Brazil, Hungarian Swears; Identifies Photos,” *Los Angeles Times*, June 9, 1985.

³⁴⁹ Alan Riding, no headline, *New York Times*, June 9 1985.

³⁵⁰ “Interviews with Gitta Stammer; Wolfram and Lisolette Bosserts, June 18, 1985,” ESPA.

³⁵¹ Posner and Ware, *Mengele: The Complete Story*, 291.

In the summer of 1979, this planning came in handy. Mengele was vacationing with the Bossert family at Bertioga beach, a coastal destination 100 miles southeast of Sao Paulo. One morning, Mengele swam out into the ocean by himself. On the beach, the Bosserts saw him start to splash and struggle to keep his head above water. Mr. Bossert ran into the water to help him, but arrived too late. By the time Mengele was pulled back onto the beach, foam bubbled from his lips, and his breathing had stopped.³⁵² Mengele, ever the physical anthropologist, knew that his bones could betray him in death just as easily as his face could have in life. He had asked the Bosserts to ensure his body was cremated, but in Catholic Brazil, cremation was a difficult procedure to get approved. Wanting to be rid of the whole situation, the Bosserts decided to simply bury the body in Wolfgang Gerhard's grave, next to his wife. That evening, Mrs. Bossert called Stammer. Stover took notes as he listened to her recollection of the conversation.

"The old man is dead," Bossert said.

"Which old man is that?" Stammer asked.

"It was Peter." They both knew she meant Mengele.

Stammer said, "Thank God it's over."³⁵³

Unfortunately for Stammer and the Bosserts, it wasn't quite over. After letters in Siedelmeier's home led to the doors of Mengele's friends in Brazil, investigations of their homes uncovered stacks of documents—diaries, memoirs, and letters—supposedly written by Mengele in his last years and saved by the Bosserts. American handwriting analysts compared these documents with handwriting samples from Mengele's SS days, provided by the West Germans. Their conclusion was unequivocal: more than 25 unique quirks of the writing matched.³⁵⁴ Whether the body was or was not that of Mengele was up to the doctors and dentists, Gideon Epstein told the press. Epstein was a member of the Justice Department team, an expert in document forgery and handwriting analysis for the US Immigration and Naturalization Service.³⁵⁵ "All we're saying," he said, "is that Mengele made the handwriting," in the documents found in Brazil.³⁵⁶ A second handwriting analyst, David A. Crown, former chief of the Central Intelligence Agency laboratory, was just as convinced. "If we'd had any doubt, we would have expressed it," Crown said. "We made independent examinations and then compared our results. We have no doubts. It's a definite identification. We're staking our reputations on it."³⁵⁷

Even so, the handwriting analysis wasn't definitive. For one thing, it only proved that the Bosserts knew Mengele well enough to end up with stacks of his personal diaries and writings. It did not prove that the man buried in the cemetery in Embu was Mengele, or even that Mengele was dead at all.³⁵⁸ And as for the depositions and interviews from Mengele's supposed friends, the

³⁵² Alan Riding, no headline, *New York Times*, June 9 1985.

³⁵³ "Notes," 29. ESPA.

³⁵⁴ Crown, "Practical Aspects of the Mengele Handwriting Examination."

³⁵⁵ Joyce and Stover, *Witnesses from the Grave*, 162-4.

³⁵⁶ Joyce and Stover, *Witnesses from the Grave*, 165.

³⁵⁷ Ralph Blumenthal, "Handwriting Experts Say Letters Found in Brazil were Mengele's. *New York Times*, June 15, 1985.

³⁵⁸ Ralph Blumenthal, "Handwriting Experts Say Letters Found in Brazil were Mengele's. *New York Times*, June 15, 1985.

scientists were wary of the statements of Mengele's friends. As Lukash would remember later, "the Bosserts and the Stammers [...] were Nazis of the first order who protected Josef Mengele after they found out about him," and therefore weren't the most objective or reliable of sources.³⁵⁹ To some of the scientists, it was not inconceivable that Mengele had gone under deep cover in response to the renewed efforts to find him, and that Stammer and the Bossert couple were all conspiring to convince the world that he had died. It was up to the scientists to see if the skeleton could offer more clues.

Before they examined the skeleton, however, the American scientists wanted to make sure they had the whole story. After Tuma briefed the international scientists, members of both American teams advised the Brazilian Dr. de Mello to recheck the grave, suggesting—based on what they had seen in news footage of the original exhumation—that he might find some pieces of potentially critical evidence left behind. In the early morning hours the following day, de Mello drove back out to the Embu gravesite to make sure they had collected all of the bones. A week after the original exhumation, the gravesite had been turned into a mini memorial, adorned with candles and fresh flowers, an indication that pro-Nazi sentiment in Brazil went far beyond Stammer and the Bosserts.³⁶⁰

The grave had other visitors too. As he knelt by the trench, sifting carefully through the dirt, a Brazilian TV crew started walking up the hill toward him, accompanied by two of the West German scientists, who were up early and coincidentally decided to see the gravesite. de Mello sifted through the dirt with his fingers, he came up with four teeth, and a collection of small bones from the hands and feet. Sheepishly, he put the new finds into a plastic bag, and accepted the Germans' assistance as he climbed out of the grave. Together, they returned to the Medico-Legal Institute to add them to the collection of bones.³⁶¹ The American experts were largely satisfied by the second exhumation. Levine would later testify before a Congressional panel that although the first attempt at grave digging "appeared to be a disaster," the second pass through the grave successfully retrieved the rest of the evidence the scientists needed.³⁶²

Meanwhile, Snow met with Levine, at his hotel across the city. The DOJ sent Levine the Nazi doctor's SS records, including a detailed physical examination performed in 1938 and 1944. These included invaluable hints about what the true skeleton of Josef Mengele should look like.³⁶³ Together, they looked through Mengele's SS medical records, documents that Christopher Joyce and Eric Stover would later describe in *Witnesses From the Grave: The Stories Bones Tell* as the investigation's "Rosetta Stone."³⁶⁴ Between the now more complete skeleton and medical records, the forensic teams had a lot of information to work with. The medical evaluation listed Mengele's height, 174 centimeters or five foot eight, as well as the circumference of his chest and the circumference of his skull.³⁶⁵ Levine, flipping through a ream of paper in his briefcase, pulled out a sheet sent to him by

³⁵⁹ "Levine's final conversation with Meachem Russek," ESPA.

³⁶⁰ "Mengele Investigation – Stover," ESPA.

³⁶¹ See *In the matter of Josef Mengele*. See also description of exhumation in Joyce and Stover, *Witnesses from the Grave*, 171.

³⁶² Testimony of Levine, *Searching for Dr. Josef Mengele*. 156.

³⁶³ United States. *In the matter of Josef Mengele: a report to the Attorney General of the United States*. See also Stover and Joyce, *Witnesses from the Grave*, 173.

³⁶⁴ Joyce and Stover, *Witnesses from the Grave*, 172.

³⁶⁵ "Evaluation of the SS Hauptsturmführer Dr. Josef Mengele, Auschwitz, 19 August 1944," ESPA.

the Office of Special Investigations that detailed Mengele's known injuries and illnesses. Some of the information—like a report that Mengele had had his kidney removed in the 1930s and withdrew from the S.A. as a result³⁶⁶—was not helpful in forensic terms, because the only damage would have been to the doctor's soft tissues. Two other pieces of information were more forensically useful, though. First, Levine produced a record from the SS and Police Court IV in Breslau, Germany, from September 28, 1943. One evening in June 1942, the record read, Mengele had been driving from the hospital barracks in Auschwitz to the officers' barracks where he lived when he was struck by a tractor hauling two trailers. Mengele was thrown from the motorcycle onto nearby train tracks. "The defendant was injured," the report read, "and parts of his uniform as well as the motorcycle were damaged."³⁶⁷ Although the report didn't specify what, where, or how seriously Mengele was injured, for the scientists this information meant that any older, serious breaks in the bones might be accounted for.

The other piece of information came from an old friend of Mengele's from medical school. The friend told German investigators that, before the war, he had dined with Mengele in a bistro in Munich's Schwabing district, "where vegetarian food was offered."³⁶⁸ During the meal, Mengele explained that he kept to a vegetarian diet at times as a result of a condition he had suffered as a child, called osteomyelitis. Osteomyelitis is a bacterial infection of the bone or bone marrow, most often seen in rapidly growing long bones, such as those of the legs or arms, of children. The infection in the bone can cause swelling and death of bone tissue. Osteomyelitis is often associated with a sequestrum, a piece of the dead bone tissue that breaks away from the site of infection.³⁶⁹ Mengele's medical school friend told German investigators that Mengele's osteomyelitis was in his lower leg, likely his tibia, and had indeed caused a sequestrum, which had been surgically removed. As a result, his leg "looked deformed, as we could see while swimming."³⁷⁰ If Mengele's schoolmate's story was true, it would be an invaluable clue for the investigators, because a sequestrum and the ensuing operation would certainly leave a mark on the bone.

The next morning, a Monday, the American, West German, and Brazilian scientists reconvened at the Medical Legal institute, where Police Chief Tuma addressed the group. The investigation they were about to begin, he told the assembled scientists, "is considered an autopsy." It would be conducted "in the classical European way," by which he meant systematically and carefully, cutting no corners and skipping no steps. There was to be no *prima facie* assumption that the bones were those of Josef Mengele.³⁷¹ The Brazilians led the men upstairs, into a room that was

³⁶⁶ "Mengele Health," 3, ESPA.

³⁶⁷ "Stay of Proceeding: An investigative proceeding against the SS Haputsturmführer, born on 16 March 1911 in Günzburg/Schwaben, at the SS Garrison physician concentration camp Auschwitz for violating German Highway Traffic Regulations will not be initiated; SS and Police Court IV, Breslau, 28 September 1943," ESPA.

³⁶⁸ "Transcript from Interview of Close Friend of Mengele's, transmitted to OSI Joseph Mengele File August 14, 1985," ESPA.

³⁶⁹ Waldvogel, Medoff, and Swartz, "Osteomyelitis: a review of clinical features, therapeutic considerations and unusual aspects," 198-206.

³⁷⁰ "Transcript from Interview of Close Friend of Mengele's, transmitted to OSI's Joseph Mengele File August 14, 1985," ESPA.

³⁷¹ "Notes," ESPA.

empty save for a couch in the corner and a table in the middle where the much-anticipated skeleton was laid out in anatomical order.

As the scientists fell into the rhythm of their work, they naturally sorted themselves not by nationality, but by scientific specialty. Snow began the anthropological assessment of the skeleton along with Ellis Kerley from the DOJ team and a Brazilian anthropologist. The bones had been cleaned prior to the international scientists arrival, and the Brazilians had also taken x-rays, so Snow and Kerley had all they needed to begin assessing the skeleton. First, they turned to the most basic fact one can take from bones: was this a man or a woman?³⁷² To determine the sex of an adult skeleton, the most obvious place to look is at the bones of the pelvis. This is in large part because females have the potential for childbirth, a process that places a very specific demand on the pelvic bones that are obvious in their structure. Thus, even if an adult female has not carried a child, her skeletonized pelvis will generally look very different than a man's. Studies have shown that trained scientists can correctly determine sex upwards of 90% of the time based on the pelvis of an adult skeleton alone. The thickness of the skull, as well as the size and shape of the mandible, the lower jawbone, can also be used to determine sex.³⁷³ Based on these observations, it was obvious to the scientists in Brazil that the skeleton in question was that of an adult male.³⁷⁴

Once they knew the person in front of them was male, the anthropologists turned to height. Wolfgang Gerhard, the man who was supposed to be buried in that grave, was quite tall: 188 centimeters, or 6'2", half a foot taller than Mengele. As the anthropologists began measuring the skeleton's long bones, it became clear that whoever he was, he definitely wasn't Wolfgang Gerhard. They used the Trotter and Gleser method, which involves measuring the skeleton's six major long bones and using that measurement to extrapolate mathematically the height using regression formulae.³⁷⁵ The man in question would have stood around 173.5 centimeters, just a hair shorter than Mengele's reported 174 cm but a full 14 centimeters, five and a half inches, shorter than Gerhard.³⁷⁶ And the half-centimeter difference between Mengele and the skeleton wasn't significant. By the markers of sex and height, Josef Mengele was still in the running.

Finally, the anthropologists determined the age of the skeleton. If the man buried in Gerhard's grave in 1979 *was* in fact Mengele, he would have been 68 years old. There are various physical markers that provide a basis making a scientific guess as to how old a person was at death. Age assessment in adults relies on skeletal changes that occur throughout a human's life with some predictable timing and regularity. Snow and the other anthropologists examined the skull, the pubic symphysis—the central joining point where the pubic bones meet—the sacrum, the ossification of parts of the ribs that are normally made of cartilage, the scapulae or shoulder blades, and the vertebrae that make up the spinal column. Another indicator can be the presence of osteoarthritis in the major joints, which is evidenced by increased bone formation around the joints and bone spurs,

³⁷² "Notes," ESPA.

³⁷³ Dawson, Ross, Mallett, "Sex Determination," 65-67.

³⁷⁴ "Forensic Anthropology: Determination of Sex; Morphological Sexing in 'Examination of the human skeletal remains exhumed at Nossa Senhora do Rosario Cemetery, Embu, Brazil, on 6 June 1985,'" ESPA.

³⁷⁵ Baines, Esmond, Eisma, "Stature," 101-102.

³⁷⁶ "Forensic Anthropology: Statural Estimation, in 'Examination of the human skeletal remains exhumed at Nossa Senhora do Rosario Cemetery,'" Embu, Brazil, on 6 June 1985." ESPA.

among other skeletal changes.³⁷⁷ All of these indicators pointed toward advanced or moderately advanced age. Based on the condition of his bones, Snow and the others determined that the man was likely 70 years old, plus or minus five years, when he died.³⁷⁸ Kerley, the DOJ team's forensic anthropologist, confirmed these results, employing a technique he had pioneered twenty years earlier: microscopic age determination. Two thin slices were made from the middle of the skeleton's left femur. Kerley then examined them under a microscope. His conclusion was similar: the skeleton was between 64 and 74 years old, with 69 the most probable age—extremely close to Mengele's actual 68 years.³⁷⁹

Based on the sex, age, and stature of the skeleton, the man buried in Wolfgang Gerhard's grave certainly could be Mengele. But that wasn't enough for the scientists to say that it *was* Mengele. They turned to the x-rays of the skeleton, where several broken bones caught their attention. First, there was a fracture—a recent one, mostly unhealed—in the right scapula, the shoulder blade. In the diaries determined to be Mengele's by the handwriting experts, the doctor complained of severe shoulder pain in the months prior to the date the body was buried in Wolfgang Gerhard's grave. This provided in a neat triangulation of points to connect the diaries to the skeleton, but it was hardly conclusive. Another fracture provided another tantalizing clue: in the skeleton's pelvic bone, near the right hip, they found evidence of an old, healed break. A thin fracture line, made clear on the x-ray by the presence of newer bone, extended through the hipbone into the acetabulum, the hip joint, where the head of the femur meets the pelvis.³⁸⁰ Nowhere in Mengele's medical history could they find concrete evidence that he had had a pelvic fracture; it could have been the non-specific injury described in the report on Mengele's motorcycle accident in 1943 at Auschwitz, but this was even more of a guess than the scapula fracture was.³⁸¹ Based on anthropological examination of the body, the scientists found nothing that made it impossible that the skeleton was Mengele's—and just as little evidence that it *was* his.

The Brazilian investigators hadn't been able to locate any recent dental records under any of Mengele's aliases. Even so, the forensic dentist Levine was having a bit more luck drawing proof out of the teeth. The West German government had furnished the Department of Justice team with Mengele's SS dental records from 1938, which the forensic odontologist could use to compare with the teeth and the skull pulled from the Embu grave. The SS records reported that all of Mengele's back teeth had fillings in them; indeed, the three back molars that remained in the skull in Brazil were filled, two of them prior to the use of the standard high-speed dental drill. Most tellingly, the skull showed evidence of a diastoma, a relatively rare condition in which the left and right hard palates—the bones that make up the roof of a person's mouth—either meet only partially or not at all, leaving an “extremely wide incisive canal.”³⁸² In plain terms, the man lying in the Embu grave

³⁷⁷ Lockyer, Armstrong, Black, “Bone Pathology,” 232-237, 242-243.

³⁷⁸ “Forensic Anthropology: Age at Death; Gross Observations, in ‘Examination of the human skeletal remains exhumed at Nossa Senhora do Rosario Cemetery,” Embu, Brazil, on 6 June 1985,” ESPA.

³⁷⁹ “Forensic Anthropology: Age at Death; Microscopic Age Determination, in ‘Examination of the human skeletal remains exhumed at Nossa Senhora do Rosario Cemetery,” Embu, Brazil, on 6 June 1985,” ESPA.

³⁸⁰ *Searching for Dr. Josef Mengele*, 156.

³⁸¹ Testimony of Dr. Leslie Lukash, *Searching for Dr. Josef Mengele*, 157.

³⁸² “Forensic Radiology, in ‘Examination of the human skeletal remains exhumed at Nossa Senhora do Rosario Cemetery,” Embu, Brazil, on 6 June 1985,” ESPA.

would have had a very noticeable, very wide gap between his two front teeth. Mengele's sarcastic, gap-toothed smile was frequently mentioned in survivor accounts of Auschwitz.³⁸³ "Everything," Levine concluded, "is consistent."³⁸⁴

Teeth, height, injuries: there was nothing so far that conclusively ruled out Mengele. The forensic experts would write in their joint forensic report, "The probability of any two people having this many specific points of agreement is virtually nil."³⁸⁵ Yet there was one major strike against the identification: as they scanned the x-rays of the Embu skeleton's leg bones, they could find no evidence of the osteomyelitis Mengele's medical school friend had told German investigators was so severe that it required surgery and caused a visible deformity in the adult Mengele's lower leg.

One of the West German scientists had one more trick up his sleeve, though, that would ultimately outweigh the scientists' concerns about the missing signs of osteomyelitis. A quiet West German scientist named Richard Helmer had tucked himself into a separate lab room, working day and night to complete a task that was as much art as it was science. Helmer had recently pioneered a technique known in English as "skull-face superimposition," a clunky translation of the not-entirely un-clunky German term, *Gesichts-Schädel-Überlagerung*. In his laboratory at the University of Kiel, Helmer had spent years making meticulous measurements and observations of hundreds of skulls, studying what he called the "anatomical landmarks" of the face.³⁸⁶ From those, he created tables and measurements of the thickness of the soft tissue over the bone of the skull at thirty separate points on the face for people of different race, sex, and age.³⁸⁷

Reconstructing a person's visage with estimates of the thickness of the skin, muscle, and fat that overlays a person's skull was a relatively old technique. In 1894, the Church of St. Thomas in the German city of Leipzig began a quest to identify the remains of Johann Sebastian Bach—who lived the last two and half decades of his life in the city—so that they could be memorialized in the church. But the church found six skeletons, each as likely as the next to be that of the great composer. A German anatomist named Wilhelm His was called in to help. His had conducted experiments on fifty newly dead suicide victims. His picked thirty points, and at each point he would push a common sewing needle into the facial tissue until it hit bone, marking the thickness of the tissue with a little piece of cork. Then, he took plaster casts of each of the candidate skulls, and using clay, reconstructed the facial tissue to its probable thickness at each point. The skull whose face most closely resembled a painting of Bach was chosen as the winner, and honored in the church as the remains of one of Germany's great artists.³⁸⁸

³⁸³ Associated Press, "Mother Tells of Killing her Newborn Baby At Auschwitz: Mock Trial of 'Angel of Death' Ends in Israel." *Los Angeles Times*, February 7, 1985.

³⁸⁴ Levine told the congressional committee, "The skull had a chrome cobalt upper partial denture which is a very precision type of thing that will only fit one person. And we can show all the precise areas that have been prepared in the seat, and could put the hard palate back into that template where it really was." Testimony of Dr. Lowell Levine, *Searching for Dr. Josef Mengele*, 159.

³⁸⁵ "Opinion, in 'Examination of the human skeletal remains exhumed at Nossa Senhora do Rosario Cemetery,'" Embu, Brazil, on 6 June 1985," ESPA.

³⁸⁶ Helmer, "Identification of the Cadaver Remains of Josef Mengele," 1622-1644.

³⁸⁷ Helmer, "Identification of the Cadaver Remains of Josef Mengele," 1622-1644.

³⁸⁸ Weitzman, "Osteobiography: An Interview with Clyde Snow," 71.

Helmer's technique owed much to His. The German scientist's observations of hundreds of skulls had built upon His's tables, making them far more accurate and widely applicable. His technique of matching the skull to an image of the person had also advanced considerably. Once he established the estimated thickness of the facial tissue, Helmer could superimpose a video image of photographs of the person in life over a video image of the skull, to see if the two matched.³⁸⁹ Helmer's technique looked a bit like technological voodoo, but he had done it on enough skulls to prove it was reliable. By 1985, skull-face superimposition was accessible as evidence in West German courts, although it had only been used to rule someone out—to determine that a skeleton had definitely *not* belonged to a person in question—never to provide a positive identification.³⁹⁰

In Brazil, Helmer had to undo the damage done by the sloppy gravediggers. The cranium, the bone that forms the dome of the head, was intact, but other pieces were almost completely destroyed. The tiny, fragile and thin nasal bones and area around the eye sockets were shattered, reduced to shards the size of Rice Krispies cereal. The German doctor had his work cut out for him. Helmer spent hours leaning over the table in the lab room assigned to the West German forensic team, piecing the tiny shards of thin bone that make up the facial structure back together with tweezers and glue. On Wednesday afternoon, Helmer glued the last pieces of bone into place around the eye socket and the base of the nose. The next morning, the German scientist drilled holes into each side of the lower jaw. Then he placed a hole in each side of the skull, right about where the man's ears would have been. He looped springs through the holes, and attached them together, just as ligaments and facial muscles would have held them in life. Then, the scientist set the set of dentures found in the grave back onto place.³⁹¹

The German scientist affixed pins at the thirty critical locations on the skull with little dots of clay. Then, using precision to the fraction of a millimeter, he pushed tiny white plastic markers—his answer to His's cork pieces—to the exact distance from the bone as a man's soft tissue would have been in life.³⁹² He made marks on the photograph at each of the same “anatomical landmarks” on the photograph. Then Helmer set up the cameras, video screens, and stands that would hold the skull and photographs; then he set the skull in place and aligned the photographs. Two advanced video recorders were placed on metal runners at the back of the room, one pointing at the skull, and the other trained on the photograph of Mengele. The two images were fed to an image processor, which overlaid the photograph over the skull onto a single television screen.³⁹³ For the technique to work—to provide a positive identification that the skull in question was Mengele's—the thirty marked locations on the skull and the photograph would have to match exactly, point by point. They did. As Helmer wrote in a paper published after the Mengele investigation, the photographs and the skull demonstrated “complete conformity” on “all recognizable proportions of the head, face, eyes, nose, and mouth. Joyce and Stover, in *Witnesses From the Grave: The Stories Bones Tell*, would later write that the effect was a bit like seeing a ghost. “The sight was unnerving. It took a moment

³⁸⁹ Helmer, *Schädelidentifizierung*; see also Iscan and Helmer, eds., *Forensic Analysis of the Skull*.

³⁹⁰ Iscan and Helmer, eds., *Forensic Analysis of the Skull*, 229-240.

³⁹¹ Joyce and Stover, *Witnesses From the Grave*, 193.

³⁹² Keenan and Weitzman, *Mengele's Skull*, 33.

³⁹³ Fridell, *Solving Crimes*, 87.

for the eye and brain to process the peculiar image.”³⁹⁴ Once they did, though, it was hard for anyone to deny what they were seeing: every marker on the skull matched the skin line of the photograph exactly.³⁹⁵ Helmer told the group, “This is Josef Mengele.”³⁹⁶

Helmer’s photo superimposition was the final convincing that some of the scientists needed. Their eyes confirmed what their measurements, numbers, and probabilities had been showing them over the past three days. The skeleton, they agreed that afternoon, was very likely to be Mengele’s.³⁹⁷ The American, West German, and Brazilian scientists spent the remainder of the afternoon and long into the night drafting a report of their conclusions. “All of the medical information given in Mengele’s diaries and correspondence are in accordance with the findings of our examination of the remains,” the report’s conclusion read.³⁹⁸ “It is our considered opinion that: The exhumed remains did not belong to Wolfgang Gerhard. [...] The remains exhumed at Embu Cemetery, near Sao Paulo, Brazil, were, with all reasonable scientific certainty, those of Doctor Josef Mengele.”³⁹⁹ Once the report was drafted, Levine would later testify before Congress, Police Chief Tuma gathered all of the scientists in the Medical Legal Institute’s meeting room. “This is like a wedding,” he quipped. “If you have any objections, speak now or forever hold your peace.”⁴⁰⁰ The police chief knew the stakes of being right or wrong: the consequences were professional, political, and scientific. He repeated the request for objections two more times. No one spoke.⁴⁰¹

The next day, the international forensic scientists gave a press conference to announce their findings. Mengele’s skull, as they had decided it could now be properly called, sat on the table in front of them. On a monitor, Helmer showed slides of his photo superimposition, the image that had been the convincing last straw in convincing all of them that they had the right man. The press was possibly even more enchanted than the scientists had been. The ghostly, transparent images of Mengele’s face, handsome in a photograph of the doctor in his late 20’s, superimposed over the pin-stuck bone of his skull, swept through media outlets around the world. Even Ralph Blumenthal, a reporter for the *New York Times* who had spent the early months of 1985 swept up in his own goose chase for the Nazi doctor and had initially been skeptical of the Embu skeleton, was satisfied that the scientists knew what they were talking about. “American experts concluded that the bones were those of the long-sought Nazi death-camp doctor ‘within a reasonable scientific certainty,’” he wrote in a piece for the *Times* the next day. “Under questioning, the Americans said they had ‘absolutely no doubt’ of their findings and ruled out any possibility of a hoax.”⁴⁰²

Despite the media’s enthusiasm in Sao Paulo and around the world, many, the scientists included, felt a sting of disappointment at finding the Angel of Death dead. Snow would later tell a

³⁹⁴ Joyce and Stover, *Witnesses From the Grave*, 196.

³⁹⁵ Helmer, “Identification of the Cadaver Remains of Josef Mengele,” 1630.

³⁹⁶ Joyce and Stover, *Witnesses From the Grave*, 196.

³⁹⁷ “Interview with John Fitzpatrick, January 14, 1989,” ESPA.

³⁹⁸ “Conclusions, in ‘Examination of the human skeletal remains exhumed at Nossa Senhora do Rosario Cemetery, Embu, Brazil, on 6 June 1985,’” ESPA.

³⁹⁹ “Opinion, in ‘Examination of the human skeletal remains exhumed at Nossa Senhora do Rosario Cemetery,’” Embu, Brazil, on 6 June 1985,” ESPA.

⁴⁰⁰ “Interview with Lowell Levine,” ESPA.

⁴⁰¹ Testimony of Dr. Lowell Levine, *Searching for Dr. Josef Mengele*, 154.

⁴⁰² Ralph Blumenthal, “Scientists Decide Brazil Skeleton is Josef Mengele,” *New York Times*, June 22, 1985.

documentary filmmaker that Mengele's "bones do not satisfy. [...] We were all a little ticked off. The thing that everybody wanted was to bring him to trial, to justice."⁴⁰³ There was also one thing about the bones that left some of the scientists slightly uncomfortable with their conclusion. The scientists did not find any evidence of osteomyelitis in any of the lower leg bones. If Mengele had the disease in as severe a form as his medical school friend reported, a sequestrum should have left a mark on the bone that could be seen decades later.⁴⁰⁴ To many, in particular those inside the Department of Justice's Office of Special Investigations who had devoted their professional careers to finding Nazis like Mengele, it felt a bit like the scientists were explaining away a glaring discrepancy between Mengele's records and the bones they found in Brazil. As a source inside OSI said later, the scientists' finding felt premature: it privileged the "mounting consistencies" between the skeleton and Mengele's record against the lack of evidence of osteomyelitis on the bones. In his opinion, and presumably that of many inside OSI, "this amounted to intellectual dishonesty."⁴⁰⁵

Others in the US government seemed to agree. Members of the Senate Subcommittee on Juvenile Justice convened three hearings over the course of 1985 to "inquire into Dr. Mengele's whereabouts." Two of the hearings took place before the discovery and exhumation of the Embu grave in Brazil. The final hearing took place on the second of August, some five weeks after the scientists' press conference in Sao Paulo.⁴⁰⁶ Lukash, Levine, and Kerley testified at the final hearing, along with David Crown, the handwriting specialist who had confirmed the diaries found with the Bosserts matched Mengele's handwriting from his SS file. All of the scientists were firm in their testimonies: they were certain the man buried in the Embu cemetery was Mengele. Yet their congressional interlocutors were skeptical. Pennsylvania Republican Senator Arlen Specter told the scientists that he and others feared the "clever and diabolical" Mengele had duped the scientists. His concern, he told them, was the balance of evidence on which their conclusions rested: "how much of it is based upon tangible physical evidence of the skeleton and the skull as opposed to what has been described as circumstantial evidence or handwriting or photographs. It is not beyond the realm of belief that a man like Mengele could reconstruct all of that."⁴⁰⁷

The Simon Wiesenthal Center grudgingly accepted the conclusions of their hired team of scientists—"we have no choice," Wiesenthal told *Newsweek* in July, just a week after the scientists made their announcement⁴⁰⁸—but other Jewish groups around the world were also clear about their doubts. The World Jewish Congress hired a former US Justice Department prosecutor named Eli Rosenbaum to conduct a quiet investigation into the Mengele investigation in the late months of 1985. He announced his conclusions shortly after the New Year. The forensic teams would be "lucky," Rosenbaum said, if their work had led to the right conclusion. Like Senator Specter, Rosenbaum raised the possibility that Mengele—by all accounts a brilliant doctor and anthropologist—could have faked his own death effectively enough to fool a team of scientists.⁴⁰⁹

⁴⁰³ Interview with Dan Setton, for documentary *Joseph Mengele: The Final Account*. In possession of the author.

⁴⁰⁴ *Searching for Dr. Josef Mengele*, 160.

⁴⁰⁵ "Off the record interview, 3 October 1988," ESPA.

⁴⁰⁶ *Searching for Dr. Josef Mengele*, 1.

⁴⁰⁷ *Searching for Dr. Josef Mengele*, 157.

⁴⁰⁸ "Mengele: The Search Ends," *Newsweek*, July 1, 1985, 41

⁴⁰⁹ Jack Anderson and Dale Van Atta, "Jewish Group Questions Mengele Probe," *The Washington Post*, January 24, 1986.

An organization that went by the acronym CANDLES, Children of Auschwitz Nazis' Deadly Lab Experiments Survivors, held a conference in November 1985 devoted to the dismantling of the forensic scientists' conclusions.⁴¹⁰

The controversy over Mengele's bones would continue to roil governmental, diplomatic, and scientific circles for the better part of seven years. Disappointment over missing the opportunity to bring the Angel of Death to justice combined with skepticism over the validity of the investigation itself and—in particular—doubts raised by the lack of evidence of osteomyelitis on the bones of the Embu skeleton combined, raising enough concerns that none of the governments involved wanted to pronounce Mengele dead. Although Helmer published his conclusions from the skull-face superimposition in 1987, the West Germans sat on their report for years after, presumably waiting for the US Department of Justice to make the first move—after all, it would hardly look good for the Germans to be the first to pronounce dead a Nazi war criminal. And the Israelis waited, presumably because bones hardly provided the satisfaction the world's Jews wanted. And the Americans waited, paralyzed by the political consequences—in particular, in terms of their relationship with Israel—of pronouncing Mengele dead and then being proved wrong later down the line. As John Fitzgerald put it, “They're scared as hell.”⁴¹¹ They wanted proof that was more certain than a gap between the front teeth, or a dramatic but relatively new-fangled superimposition technique.⁴¹² For seven years after the conclusion of the Mengele investigation in Brazil, political concerns very directly prevented the rational assessment of the science—just as they had in the case of the Katyn Forest murders, forty years earlier.

In the end, the forensic scientists were vindicated by a cutting-edge technique. In 1992, the conclusion of the international doctors—that the skeleton did indeed belong to the infamous Nazi doctor—was confirmed by the Nazi doctor's very genome. Jeffreys, the British scientist who had pioneered DNA analysis and forensic genetic sequencing, took samples from the skeleton in Brazil and matched them with a blood sample from Mengele's son, a 48-year-old German lawyer named Rolf. Rolf had remained in Germany with Mengele's first wife—she divorced her husband after the war—and only met his father twice since the war. For many years, Rolf had known the man in Latin America only as Helmut Gregor, an uncle; he knew about the crimes of his father, but Mengele, he was told, was dead.⁴¹³ It was only later in life that he learned the truth: Uncle Helmut was actually the infamous Nazi doctor, and his father. The genes provided scientific confirmation: the skeleton found in Brazil matched Rolf's DNA. The bones were Mengele's. DNA provided a satisfyingly conclusive basis on which to finally close the case on the Angel of Death. “Finally,” Clyde said, “we hit the last nail in the old bastard's coffin.”⁴¹⁴

* * *

⁴¹⁰ “CANDLES Inquest Conference program, “The Truth About Mengele,” November 14, 15, 16, 1985.” Held at the Hulman Center in Terre Haute, IN,” ESPA.

⁴¹¹ “Interview with John Fitzpatrick, November 1988,” ESPA.

⁴¹² “Interview with Donald Ortner, October 31, 1988,” ESPA.

⁴¹³ Alice Siegert, “His Secret Out, Rolf Mengele Talks About His Father”, *The Chicago Tribune*, June 30, 1985.

⁴¹⁴ Weizman, “Osteobiography: An Interview with Clyde Snow,” 71.

IN 2012, THE television show *CSI: Crime Scene Investigation* received the International Television Audience Award for a Drama TV Series at the Monte Carlo Television Festival; this was the fifth time in seven years *CSI* received the award given to the most-watched television show in the world.⁴¹⁵ According to the Nielson ratings, in the week of this writing the third ranked show in America was *NCIS*—short for Naval Criminal Investigation Service, a police procedural with a heavy dose of forensic magic—with over 16 million viewers, behind only the twin powerhouses of Sunday Night and Thursday Night Football.⁴¹⁶ The mainstream effect of these shows is perceived as so pervasive that much scholarly ink has been spilled about the “CSI effect” on juries: the expectation on the part of jurors that science will be able to definitively solve any crime, and their reluctance to return a guilty verdict if it does not.⁴¹⁷

Keenan and Weizman argue that the Mengele investigation played a role in the origins of this popular fascination with forensic science as a crime solving technique. In particular, they write, the emotionally and visually convincing nature of Helmer’s superimposition of photographs onto the skull was a critical turning point in public knowledge and understanding of forensic procedures and techniques. It was there, they argue, that the use of forensic science was “professionally tested and publically displayed.” This step opened the door for forensic techniques to become “available as methodologies in investigating war crimes and human rights violations.”⁴¹⁸ Although this is an exaggeration of the importance of Mengele’s identification for the actual work of forensic science, this chapter agrees that, in terms of the attention paid by the media and the global public, there was forensic work done in the service of human rights before Mengele, and there was forensic work done after Mengele. And, although the investigation in Brazil and the identification of Mengele’s skeleton does not fit neatly into the history of human rights, it can be seen as an example of how of international cooperation and collaboration could work both on the level of government and on that of scientists, it can be seen as a turning point in the use of forensics in large-scale investigations of war crimes and crimes against humanity.⁴¹⁹

⁴¹⁵ “Most Watched TV Show in the World is ‘CSI: Crime Scene Investigation,’” *Huffington Post*. June 14, 2012.

⁴¹⁶ The Nielson Company, “Nielson Top Ten List for Prime Time Broadcast TV – United States,” week of September 28, 2012.

⁴¹⁷ See, e.g., a mainstream discussion: Toobin, “The CSI Effect: The Truth about Forensic Science.” For a scholarly legal perspective, see Cole and Dioso-Villa, “Investigating the ‘CSI Effect’ Effect: Media and Litigation Crisis in Criminal Law.”

⁴¹⁸ Keenan and Weizman, *Mengele’s Skull*, 55.

⁴¹⁹ Keenan and Weizman, *Mengele’s Skull*, 55. As discussed in the introduction, these authors place perhaps too much emphasis on the actual prominence of forensic evidence in investigations and prosecutions of war crimes and human rights violations, and overestimate the extent to which forensic evidence came to displace other forms of evidence in international criminal court cases. However, their argument that the Mengele investigation marked a turning point in public awareness of forensic science and inaugurated an increased use of forensic evidence in these investigations and prosecutions is compelling.

CHAPTER 5

Guatemala and Iraq, 1990-1992



ON SEPTEMBER 11, 1990, a 39-year-old Guatemalan anthropologist and human rights activist named Myrna Elizabeth Mack Chang was murdered, stabbed 27 times as she left her office in Guatemala City. Myrna Mack, as she was known professionally, was the daughter of a Chinese mother and a Mayan father. She had left home to study anthropology at the University of Manchester, in the UK, before returning to Guatemala and becoming a vocal opponent of the government's treatment of its indigenous Mayan people. In the months before her death, she had completed a report about a study she conducted that concerned thousands of Guatemalans who were displaced, disappeared, or

massacred during a period of army repression.⁴²⁰ Her murder came just days before she had planned to present the results, which implicated the Guatemalan military government.⁴²¹ In 1993, a Guatemalan court convicted Noel Beteta, a sergeant in the presidential general staff, of the murder and sentenced him to 30 years in prison.⁴²² Mack's family, though, believed the origins of the crime began much further up in the government; that someone had ordered Beteta to kill Mack to keep her from releasing her indictment of the government's violent acts. Indeed, in 2000, the Guatemalan state finally acknowledged "institutional responsibility of the state in the murder of Myrna Mack Chang, as well as delay and denial of justice."⁴²³

Mack had returned home from her university education abroad to find Guatemala embroiled in its own rendition of the political violence that struck many Latin American countries in the 1970s and early 1980s. In Guatemala, a military *coup d'etat* that overthrew a democratically elected government in 1954, after which a series of conservative military dictators held the president's office for nearly thirty years. Then, in March 1982, General Efraín Ríos Montt seized power in a second military-backed coup. Under these successive military regimes, Guatemala's civilian population—and in particular its rural poor, and indigenous Mayan population—did not fare well.

Rebel groups assembled in the 1960s, and the country plunged into a civil war of sorts for the next thirty years, one that trapped civilian populations between the government forces and the rebel groups. 1960s the Guatemalan state began a systematic, violent campaign against anyone perceived as a threat to government authority, targeting academics and students, left-leaning politicians, journalists, and other government opponents just as Argentina and Chile would do the following decade, in the 1970s. Guatemala has the dubious honor of being the first state on the South American continent to "disappear" civilians, embarking on a campaign of kidnappings, clandestine arrests, torture, and murder. In all, a report released in 1999 by the Commission for Historical Clarification set the number of dead or disappeared at over 200,000 people over the course of the three-decade war.⁴²⁴

In Guatemala, though, there was an extra element that made the subsequent forensic work so important: genocide. That same report determined that 83 percent of the victims were Maya, members of an indigenous minority group. The Army suspected the Maya of supporting and assisting the guerilla forces, and singled them out for persecution. More than six hundred Mayan villages served as massacre sites, where the army slaughtered people largely without discrimination before burning their homes to the ground. Survivors were forced to flee into the country's high mountains, where they struggled to find sufficient water and food even as the army kept them on the run.⁴²⁵

⁴²⁰ Published as Myrna Mack, *Assistance and Control: Policies Toward Internally Displaced Populations in Guatemala* (Washington, D.C.: Center for Immigration Policy and Refugee Assistance, Georgetown University, 1990)

⁴²¹ "Guatemala Trial Begins," *New York Times*, September 4, 2002.

⁴²² David Gonzales, "Guatemala Tries 3 Officers, Saying They Instigated '90 Killing," *New York Times*, September 9, 2002.

⁴²³ *Myrna Mack Chang v. Guatemala* (Trial Judgment), November 25, 2003. Inter-American Court of Human Rights.

⁴²⁴ Sanford, *Buried Secrets*, 14.

⁴²⁵ Chapter 14: The Exhumation and the Anti-Christ: Ethnography of Genocide Part II in Sanford, *Buried Secrets*.

Myrna Mack's murder was a high profile event that got considerable notice in Guatemala, as well as in the international anthropology and human rights communities,⁴²⁶ and resulted in an almost immediate end to all anthropological investigations in Guatemala.⁴²⁷ It also drew the attention of forensic experts around the world, including Clyde Snow, forensic pathologist Bob Kirschner, and Eric Stover, who arrived in Guatemala City in December, three months after the Mack's murder to investigate graves of that country's disappeared.⁴²⁸ Forensic investigation, these groups hoped, could be as effective on victims of racial and ethnic violence in Guatemala as it had been for political violence in Argentina. A local judge ordered a grave exhumation and asked the forensic anthropologist to do the digging. Snow and Stover exhumed, examined, and identified two victims. The anthropologists determined they lost their lives in extrajudicial executions by the Guatemalan military a few years before.⁴²⁹

* * *

AS HAS BEEN discussed in previous chapters, forensic investigations were increasingly incorporated into investigations into large-scale crimes as human rights investigations crystallized as a global project in the 1970s and 1980s. Where the mid-1980s saw the first launching of international forensic investigations in Argentina, the first years of the 1990s were a period of a rapid expansion in the global use of forensic evidence in investigations into war crimes, human rights violations, and other atrocities.⁴³⁰ In those years, the Argentine Forensic Anthropology team began to work outside the borders of their country. The mid-1990s would bring about the next major step in human rights work: the establishment of the first international criminal tribunals since Nuremberg, focusing on crimes committed in the former Yugoslavia and in Rwanda.⁴³¹ Both of these tribunals would incorporate forensic evidence into their investigative processes; in Yugoslavia, this has resulted in a forensic effort that has, to date, lasted more than two decades and whose leaders have pledged to remain until every possible set of human remains from the Balkan War has been found and identified.⁴³²

In the interim, the years between the first international, large-scale forensic investigations in Argentina in the mid-1980s and the establishment of the so-called ad hoc tribunals for Rwanda and Yugoslavia in the mid-1990s, the same forensic scientists who had cut their human rights teeth in Argentina were invited to conduct similar investigations in other global areas of conflict with an ever more concrete notion that trials would be held. This chapter follows the scientists on two such investigative trips in 1991: to Guatemala and Iraqi Kurdistan. These two cases were important

⁴²⁶ *Scientists and Human Rights in Guatemala*, x.

⁴²⁷ Lynn. *The Myrna Mack Case*.

⁴²⁸ Fredy Peccarelli in conversation with the author, September 2015.

⁴²⁹ Stuesse, "Si Hubo Genocidio: Anthropologists and the Genocide Trial of Guatemala's Rios Montt."

⁴³⁰ See, e.g., Robertson, *Crimes Against Humanity*; Neier, *War Crimes*.

⁴³¹ The Security Council invoked its Chapter VII powers, granted under the UN Charter, to establish both the ICTY and ICTR. The ICTY was created in May 1993 by a Security Council vote; and the ICTR was established 18 months later, in November 1994. See United Nations Security Council Resolution 827, adopted 25 May 1993; Security Council Resolution 955, adopted 8 November 1994.

⁴³² For a recent and comprehensive overview of the Bosnian forensic effort's past and present, see Jennings, *Bosnia's Million Bones*.

stepping stones, ones that helped to move forensic scientists into new geographical, political, and cultural spaces, one that not only forced them to interpret themselves as part of a global human rights project rather than simply an Argentine one, but that also demonstrated the applicability of forensic science to different conflict situations, and to different historical and legal questions. In Guatemala, the forensic scientists found themselves investigating, for the first time, a suspected genocide—racially motivated violence against that country’s indigenous Mayan population. In Kurdistan, they were tasked with not only investigating a genocide, but with determining whether or not Saddam Hussein’s regime had used chemical weapons against its own people. Each of these investigations pushed the boundaries of what had been previously done, moving beyond the Argentine context, and then beyond the LA context, to large-scale crimes globally. The two stories told in this chapter, of forensic investigations in Guatemala and in Iraqi Kurdistan, served as testing grounds for forensics in the service of human rights, in which forensic investigations were undertaken in increasingly complex global situations with an ever more concrete understanding that their results were intended to be used in future trials.⁴³³

The exhumation Snow conducted in Guatemala in December 1990 was the beginning of what would become one of Latin America’s largest and most sustained forensic effort. It was also a seminal moment, Eric Stover recalled in an interview, a turning point in the use of forensic techniques to expose human rights violations,⁴³⁴ and a turning point in the kind of crime the forensic teams were asked to investigate. “In Argentina we saw people killed by the state,” Snow told an interviewer more than two decades later. “But in Guatemala things were different—they were massacres. Hundreds of Indian villages were wiped out completely.” This was ethnic and racially driven violence on an enormous scale. For the first time, the forensic scientists were asked to apply their skills to investigate a suspected case of genocide.⁴³⁵ In Iraqi Kurdistan, too, the suspected crimes the forensic scientists were called to investigate were not only state-committed, but ethnically motivated, apparently targeted at that country’s Kurdish population.⁴³⁶

Further complicating matters was the fact that, in both of these cases, the scientists found themselves investigating crimes that were the governments in power still actively wanted to cover. The scientists, as representatives of those NGOs, were thus in a more precarious position—the precariousness of which had been made explicit by Mack’s murder. The fear and unease that this position engendered would become a feature of forensic work in the context of the international criminal tribunals that would come in the years that followed—exhumations that will feature in the third section of this dissertation—during which forensic scientists would find themselves exhume graves in areas where conflicts had recently ended or were still ongoing.

⁴³³ This chapter relies on sources written by anthropologists both forensic—as in the case of reports written by members of the forensic teams and published by the NGOs they represented after the exhumations in both Guatemala and Iraq—and cultural, in the form of Victoria Sanford’s writings, an anthropology doctoral student who spent 1994 in rural Guatemala conducting interviews of Mayan survivors of and witnesses to governmental violence.

⁴³⁴ Eric Stover in conversation with the author, July 2014.

⁴³⁵ Saul Elbein, “In Guatemala, an American anthropologist digs up bodies and builds a case: An interview with forensic anthropologist Clyde Snow,” *Latitude News*.

⁴³⁶ Much has been written on the ethnic nature of the Hussein regime’s al Anfal campaign. See, e.g., Hiltermann, *A Poisonous Affair*; Black, *Genocide in Iraq*; Kelley, *Ghosts of Halabja*.

The two cases presented in this chapter are part of a subtle movement in human rights work from the primarily humanitarian, NGO and activist-driven sphere into a legal and prosecutorial one. In both of these countries, the forensic evidence uncovered in the early 1990s would eventually go to trial: in Iraq in 2005, and most prominently in Guatemala from 2012 to 2014, at the very end of Clyde Snow's life. Yet in this chapter it is not as important that the forensic evidence was later used in trials; what matters more was a pervasive sense that it could be in the future. The post-Cold War sensibility made war crimes trials in the mold of Nuremberg a live possibility; a parallel process of standardization and a growing sense of a global project of justice affected a subtle shift in forensic investigation that helped to pave the way for the cases that follow in section three of this dissertation, which were done explicitly in the context of criminal prosecutions.

I. Guatemala

THE EXHUMATION THE American scientists conducted during their visit to Guatemala in December 1990 served mainly to give investigators a glimpse of the scale of the forensic work left to be done in Guatemala.⁴³⁷ The next month, in January 1991, Clyde returned to Guatemala with some of the Argentine scientists to begin training a forensic team. The first effort was to construct a forensic team within the country's Justice Department, utilizing the forensic doctors and medico-legal infrastructure already existing in the country. However, it became clear fairly quickly that there were going to be challenges with working within the existing system to construct a workable forensic program to examine the crimes of Guatemala's recent past. First, there was no shortage of fear on the part of the anthropologists in the country. The thirty forensic doctors employed by the government in all of Guatemala were no different. As Stover wrote later, "Doctors who produce autopsy findings that implicate government authorities or their agents may pay with their jobs or even their lives." Even worse, though, the Americas Watch team found that in the years leading up to their visit, that sense of acute fear on the part of forensic doctors had been replaced by apathy, a pervasive sense that nothing they found or said would make any difference. A forensic doctor in Guatemala City told Stover and Snow, "When it comes to threats, they don't waste their time on us. [...] The killers are immune: they'll never be convicted, let alone prosecuted, especially on the basis of an autopsy finding. Not here."⁴³⁸

Aside from the potential influence of an autopsy report, Stover, Snow, and Kirschner also had some concerns about technical ability of the forensic doctors who currently worked for the government to perform conclusive autopsies. Forensic doctors in Guatemala did not need to have any training in forensic pathology, or even any experience in diagnosing or recognizing diseases and injuries based on the examination of tissues. They were required only to be medical doctors—many of them working in forensics after hours to supplement their incomes from private general medical practice—and Guatemalan-born citizens. These doctors "learn[ed] the profession in the autopsy

⁴³⁷ Fredy Peccarelli in conversation with the author, July 2015.

⁴³⁸ Stover, *Guatemala*, 27.

room.”⁴³⁹ And the death investigation system in the country offered little assistance: rather than allowing the forensic experts to view the body the way it was found, in the context of the crime scene, bodies were delivered to the morgue, often with very little information to help the forensic doctors determine the manner of death—be it suicide, accident, or murder. “In a sense, we work blindfolded,” a forensic doctor in Guatemala City said.

Finally, the Americans found that the physical infrastructure and conditions within which these forensic doctors worked limited their ability to investigate deaths—as was perhaps the government’s intention. Stover, Snow, and the other forensic scientists who visited Guatemala in December 1990 and January 1991 noted that the state’s forensic doctors lacked access to x-ray equipment—critical to locating bullets in the body—as well as basic refrigeration, and that they worked in cramped, dingy basement rooms. These conditions were not the result of a resources or infrastructure problem, Stover later wrote. Directly next door, the Americans toured a three-year-old building that was outfitted with refrigerators, bright fluorescent lighting, and stainless steel autopsy tables and sinks. The whole building sat empty; the city’s forensic staff had simply never been given clearance to move in. Any lack of forensic infrastructure, then, was either a deliberate decision on the part of the government to prevent the forensic doctors from conducting effective death investigations, or simply a lack of interest on the part of the government in knowing why and how its citizens were dying.⁴⁴⁰

Stover and Snow found that the forensic investigations in Guatemala fell far short of the standards set by Minnesota Protocol, an international standard for forensic investigations Snow had helped to develop in the latter years of the 1980s, and which the UN would later accept as the official, legal standard for such investigations.⁴⁴¹ To offer assistance and international oversight, in forming a Guatemalan forensic program based on the Argentine model. He began recruiting students, young, mostly undergrads studying anthropology and medical students, who had heard of this work in other countries and were interested in attempting something similar at home.⁴⁴² Over the next few years, Snow and the young Guatemalan students traveled throughout the highlands in mountainous western Guatemala, digging up graves and examining the remains of some 300 Mayan victims of government and army massacres. These early days of exhumations in Guatemala, Snow recalled later, were rough going, in large part because they had little funding.⁴⁴³

Guatemala was not the first trip abroad for Snow and for the Argentine forensic team. In 1989, the Chilean government arranged for Clyde and some members of the EAAF to travel to Santiago to offer some training to Chilean forensic anthropologists. Like many Latin American countries, Chile had experienced a military *coup d’etat* in the 1970s, which ushered in seventeen years of military *Junta* government rule. As Argentina’s *coup* had done, Chile’s military overthrow of the government brought with it the arrests, disappearances, and executions of thousands of the

⁴³⁹ Stover, *Guatemala*, 21.

⁴⁴⁰ Stover, *Guatemala*, 24-5.

⁴⁴¹ With its adoption by the UN in 1991, the Minnesota Protocol became United Nations Economic and Social Council resolution 1989/65, “Manual on the Effective Prevention and Investigation of Extra-Legal, Arbitrary and Summary Executions.”

⁴⁴² Fredy Peccarelli in conversation with the author, September 2015.

⁴⁴³ Stuesse, “Si’ Hubo Genocidio: Anthropologists and the Genocide Trial of Guatemala’s Rios Montt.”

country's left-wing supporters. The Chilean *coup* took place on September 11, 1973, with the overthrow of President Salvador Allende. Violence started immediately. Within days the capitol city's morgues were overflowing, and bodies were often left floating down the Mopoché River. Many bodies were simply piled at the gates of the country's cemeteries or on the steps of Santiago's Medico-Legal Institute. There, government forensic doctors could not process them all for autopsy, let alone identification. The nameless bodies were assigned a number, and buried in common graves in areas of the cemetery known as Patios. Patios existed in peacetime as well; these large lots generally served as the resting place of people who couldn't afford family tombs or individual plots. One of the immediate solutions to the problem of bodies piling up in the city's morgues and at the cemetery's gates was to repurpose one of these Patios in a section of Santiago's main cemetery.⁴⁴⁴ Within a week of the coup, the military began burying people in communal pits in a plot called Patio 29.⁴⁴⁵

Patio 29 and other clandestine graves from Chile's recent violent past were the context for the first trip abroad for the still-young Argentine Forensic Anthropology Team. In 1989, the Chilean government arranged for Clyde and some members of the EAAF to travel to Santiago to offer some training to Chilean forensic anthropologists. Snow initially saw great promise in Chilean forensic efforts. For one thing, the Chileans brought considerably more to the table than the Argentines had in terms of scientific qualifications and forensic expertise. After Snow's visit, a group of Chilean scientists formed the *Grupo Chileno de Antropología Forense* (Chilean Forensic Anthropology Group, or GAF for short), modeled almost entirely after Argentina's EAAF, in particular replicating the Argentines' central focus on families and victims. But unlike the EAAF, which received some official support from the Alfonsín government in Argentina, the Chilean GAF was plagued with resource and support problems from the start. Lacking funding, equipment, or support from the government, the GAF had trouble remaining financially solvent. Forensic scientists largely could not devote their full attention to the work if they wanted to keep food on the table; many left the group for jobs that promised a paycheck. In 1994, the last two scientists left standing had a falling out, and the group disbanded, leaving the exhumation and identification efforts to the Chilean government's Forensic Institute (*Servicio Médico Legal*).⁴⁴⁶ The more general international human rights campaign in Chile was no more successful: despite intense involvement and scrutiny on the part of the international community, Jan Eckel writes, the human rights activism campaign's "influence on political change in Chile was relatively weak."⁴⁴⁷

The effort to set up a forensic program in Guatemala would prove more successful and longer lasting.⁴⁴⁸ In July 1992, those students officially formed the Guatemalan Forensic Anthropology Team, later to be renamed the Guatemalan Forensic Anthropology Foundation

⁴⁴⁴ Devisser, Latham, and Lieva. "The contribution of forensic anthropology to national identity in Chile: a case study from the Patio 29 mass grave," 130.

⁴⁴⁵ Rosenblatt, *Digging for the Disappeared*, 74.

⁴⁴⁶ Rosenblatt, *Digging for the Disappeared*, 74.

⁴⁴⁷ Eckel, "The International Human Rights Campaign against Chile," 323.

⁴⁴⁸ In 2015, the Guatemalan Forensic Anthropology Foundation (FAFG) is a regional leader in traditional forensics and DNA, with the only lab in the region certified to undertake DNA profiling for identification purposes. The FAFG continues to work on current and historical forensic cases in Guatemala, El Salvador, Honduras, and Mexico, and to provide support for identification of migrants and populations after natural disasters in the region.

(*Fundación de Antropología Forense de Guatemala*, or FAFG). At the time, they didn't have a clear idea of the magnitude of the work that lay ahead of them. Current estimates are that 200,000 Guatemalans were killed during the years of violence, from the 1960s into the late '80s and early 90's. Of those, an estimated 160,000 were the victims of massacres, largely buried by survivors in their communities in mass graves; the other 40,000 were victims of forced disappearances, whose bodies were often buried without identification on military bases around the country.⁴⁴⁹ Over the next couple of years, Snow dedicated much of his time to working with and training Guatemalan forensic scientists, often in remote locations in the country's mountainous regions. Slowly, they began to register the scale of the forensic work to be done.

Around the same time, another American was also traveling around Guatemala's highlands, conducting an investigation of her own into that country's recent past. In 1994, Victoria Sanford, a doctoral student in anthropology from Stanford, conducted fieldwork in Guatemala for her dissertation on the effects of government violence and repression—known colloquially as "*La Violencia*," the violence—on the country's indigenous Mayan and Ixil populations. That project that took her far off the beaten track, into rural Maya communities to interview survivors about the violence they saw and personally experienced.⁴⁵⁰ In June of that year, Sanford joined Snow and a team of forensic anthropologists to interact with the other victims of *La Violencia*: this time, rather than hearing the stories of the living, Sanford helped to exhume the bodies of the dead. As she hiked up a central Guatemalan mountain to the Maya village of Plan de Sanchez to meet the forensic team at her first mass grave, Sanford wrote later that she had to fight back the urge to faint or vomit; as much to save face in front of the forensic team as out of respect for the survivors and relatives who stood around the grave, observing the scientists' work.⁴⁵¹ As a cultural anthropologist—rather than a forensic one—Sanford had never seen a mass grave or a set of human remains; yet when she arrived a Guatemalan scientist handed her a chopstick and a small paintbrush, directing her toward a section of the grave. As she clumsily brushed away some of the dirt near a skeleton lying in the pit, she wrote later, the Guatemalan scientist quickly gathered she had no idea what she was doing, and

⁴⁴⁹ Fredy Peccarelli in conversation with the author, September 2015.

⁴⁵⁰ Sanford and her Ixil translator, spent weeks in the rural Guatemalan countryside interviewing survivors about their experiences during what they called *La Violencia*, the violence. Her work provides a window into the massacres of Ixil communities and, often, the time survivors spent on the run in their wake. During her research, Sanford met up with Snow and the newly formed Guatemalan Forensic Anthropology Team in 1994, at an exhumation in the village of Plan de Sanchez, where Guatemalan troops had massacred a Mayan community in July 1982. Sanford would later serve as the director of research for the Guatemalan Forensic Anthropology Team's report to Guatemala's truth commission, known as the Commission for Historical Clarification. As a work of anthropology, Sanford's work asks different questions of her subjects and of their cultural landscape than are of interest to this project: it records and examines the lived experiences of the survivors and surviving communities of Mayan and Ixil peoples targeted by the Guatemalan military campaigns, both their memories of the violence itself, and the effects of the trauma felt later. But viewed as a historical document of its own accord, as it is in this chapter, Sanford's book can function both as a primary source—a first-person narrative record of her experiences at the gravesite, with the forensic team, and with survivors and relatives of victims—and a secondary source, a work of scholarship that outlines the historical context for the violence and subsequent trauma. As a historical actor herself, Sanford's writing provides a deep understanding of the particular historical moment in ways that are instructive and illuminating for this chapter.

⁴⁵¹ Sanford, *Buried Secrets*, 31.

patiently showed her how to maneuver the brush to remove even the finest specks of dirt, and how to remove, catalog, and bag the bones she found.⁴⁵²

In 1997, Fredy Peccarelli took over the leadership of the Guatemalan forensic team. Peccarelli was a Guatemalan-born anthropology student who had spent his youth and young adulthood in New York, where his family had fled in the early 1980s to escape *La Violencia's* worst years under the rule of General Rios Montt. After he graduated from Brooklyn College, Peccarelli developed a passing interest in archaeology. This led him to, somewhat serendipitously, a talk Snow gave at a meeting of the American Anthropological Association on mass graves and forensic investigation of human rights violations. Snow's words and slides made a major impression on the young man. He remembered, "It was as if I'd been hit by lightning."⁴⁵³ He went back to Guatemala, and turned out to be, as Snow put it, "a brilliant and inspiring leader." Peccarelli was able to galvanize the "little group" of forensic scientists and turn it into the full-fledged Guatemalan Forensic Anthropology Foundation, which would eventually grow to become the largest forensic anthropology group anywhere in the world.⁴⁵⁴ Peccarelli understood that in order to make a real difference, the forensic efforts would also have to focus on truth documentation and truth telling in a legal sense: not only restoring memory but also providing evidence for war crimes trials that he hoped would be held to prosecute Guatemala's worst offenders. To Peccarelli, it was just as important that the Guatemalan team be a scientific evidence-producing organization as it was to be a human rights-oriented one.⁴⁵⁵

The forensic work done by Snow, Stover, and the young Argentine forensic trainees had previously been mobilized as evidence in a war crimes trial, when Snow presented Liliana Pereyra's bones during the *Juicio*, in 1985. In Guatemala, the connection between the forensic work and the country's legal processes was more explicit. In 1997, a new law of the public ministry came into effect, requiring all exhumation requests to be sanctioned and overseen by the country's Justice Department, putting them under the direct purview of the country's federal prosecutors. Every exhumation, then, is officially considered a criminal investigation done for the purpose of prosecution in a trial. "Whether or not there was intent [to collect evidence for trials] becomes irrelevant, but intent changed as we begin to realize the gravity or the extent of the problem," Peccarelli remembered.⁴⁵⁶ In Guatemala—as, others have shown, was the more general focus of the international human rights movement in the 1970s and 1980s⁴⁵⁷—the primary purpose of the forensic investigations was not for trials. Only a very small portion of the forensic evidence gathered in Guatemala would actually be used in a trial setting—by 2015, only ten domestic war crimes trials had utilized evidence from the more than 7,000 sets of skeletal remains unearthed by Guatemalan forensic investigators—but the forensic evidence was all collected as if it would be.⁴⁵⁸

The year 2012 was a major turning point for Guatemala, and for global human rights investigations and prosecution more generally. In January, Attorney General Claudia Paz y Paz

⁴⁵² Sanford, *Buried Secrets*, 31.

⁴⁵³ Peter Canby, "The Documents and the Murderers," *New Yorker*, June 8 2012.

⁴⁵⁴ Angela Stuesse, "Si Hubo Genocidio: Anthropologists and the Genocide Trial of Guatemala's Rios Montt."

⁴⁵⁵ Peter Canby, "The Documents and the Murderers," *New Yorker*, June 8 2012.

⁴⁵⁶ Fredy Peccarelli in conversation with the author, September 2015.

⁴⁵⁷ See Cmiel, "The Recent History of Human Rights."

⁴⁵⁸ Fredy Peccarelli in conversation with the author, September 29, 2015.

stunned the country and the world when she indicted the former dictator on charges of crimes against humanity and genocide.⁴⁵⁹ Specifically, charges held Rios Montt accountable for the deaths of 1,771 Mayan Ixiles, the displacement of 29,000 others, and the inhumane treatment, torture, and rape of many, many more.⁴⁶⁰ Thanks in no small part to two decades of untiring work by the exhumation teams, Efraín Ríos Montt became the first person anywhere in the world to be charged and tried for the crime of genocide by his home country.⁴⁶¹

Pecarelli testified at the trial as an expert witness. Between 1992 and 2009, he told the court, the Guatemalan forensic teams had exhumed skeletal remains belonging to 420 people from the Ixil area, all of who died in massacres that took place during General Rios Montt's tenure as president. A third of them were under 18 when they died.⁴⁶² The Guatemalan forensic scientist then turned to a report Snow wrote in 2008 that revealed much about how the Ixil victims had died, and who killed them. Ballistics showed that the military's bullets were responsible for nearly all—98 percent—of the deaths. Finally, the percentage of bodies found with fatal wounds—83 percent—was consistent with executions; in a normal combat situation—Rios Montt's attorneys claimed that the graves were battlefield cleanup, containing the bodies of combatants who fought government forces—only about twenty percent of wounds are considered fatal. Snow calculated the probability of an 83% rate of fatal injuries occurring randomly in combat to be 8 in an octillion, which is one followed by twenty-seven zeroes. “This cannot happen,” he said.⁴⁶³ The human remains exhumed by the Guatemalan forensic teams had been executed. The forensic teams' adherence to the international standard laid out in the Minnesota Protocol also added weight to their conclusions that the Ixil had, in fact, been the victims of an organized system of violence.⁴⁶⁴

The trial lasted well over a year. On Friday afternoon, May 10, 2013, he sat in a packed courtroom as the trial's judges handed down the verdict. Efraín Rios Montt, the Judges read, had been found guilty of genocide and of crimes against humanity. As punishment, the former leader would spend 80 years in prison—vastly more than a life sentence for the then-86 year-old. One week later, the court issued a 718-page judgment.⁴⁶⁵ The judgment made reference to the forensic reports, the ballistics evidence, and the demographic information such as ethnicity, age, and gender of the bodies Snow found in the graves as convincing evidence of the Guatemalan state and

⁴⁵⁹ Doyle, “Justice in Guatemala.”

⁴⁶⁰ MacLean, *Judging a Dictator*, 4. Published by the Open Society Justice Initiative, MacLean's book provides a comprehensive of the charges, trial, and conviction of General Rios Montt, as well as the overturning of that verdict and the uncertain future for Guatemala's future in terms of human rights and accountability.

⁴⁶¹ “Trial Background,” The Trial of Efraín Rios Montt & Maruicio Rodríguez Sánchez, Open Society Justice Initiative, <http://www.riosmontt-trial.org/trial-background/>; see also Sanford, “Command Responsibility and the Guatemalan Genocide: Genocide as a Military Plan of the Guatemalan Army under the Dictatorships of Generals Lucas García, Rios Montt, and Mejía Victores.”

⁴⁶² MacLean, *Judging a Dictator*, 5.

⁴⁶³ Matt Eisenbrandt, “Defense presents military experts, prosecution presents forensic experts,” *International Justice Monitor*, Open Society Justice Initiative, April 11, 2013. <http://www.ijmonitor.org/2013/04/defense-presents-military-experts-prosecution-presents-forensic-experts/>

⁴⁶⁴ Ruben Rosario, “Justice achieved in Guatemala, thanks to the Minnesota Protocol,” *Twin Cities Pioneer Press*, May 16, 2013.

⁴⁶⁵ For a partial translation of the judgment from Open Society Justice Initiative, see http://www.opensocietyfoundations.org/sites/default/files/rios-montt-judgment-full-version-11072013_2.pdf

military's crimes. Snow told an interviewer later that year, "After 500 years of American Indian genocide, it is the first conviction!"⁴⁶⁶

But as quickly as the judgment came, it went. Ten days after the verdict was announced, the country's Constitutional Court overturned the former leader's conviction by a 3-2 ruling and annulled the final weeks of the trial, sending it back to where it had been on April 19; by that date, the prosecution had already rested, but allowed some defense witnesses to re-testify. It would also force each side to repeat their closing arguments, and required the judges to re-deliberate and pronounce judgment.⁴⁶⁷ Rumors of political pressure and possible corruption at the highest levels of the country's judiciary swirled around Guatemala City. Although human rights activists around the world celebrated the verdict, it was controversial in Guatemala. Rios Montt supporters waged a lobbying campaign against the Constitutional Court; the most powerful business organization in the country also joined forces to push the court to overturn the verdict.⁴⁶⁸

To date, Rios Montt's trial has not been re-concluded. On July 7, 2015, the then 89 year-old was declared mentally unfit to stand trial, effectively ending all future attempts at prosecution.⁴⁶⁹ Yet Rios Montt was the only person ever convicted of the crime of genocide by his home country—even if that conviction stood for just ten days—no small thanks to the massive forensic effort of Snow and the Guatemalan forensic program. Beatriz Manz, a professor of Chicano/Latino Studies at the University of California, Berkeley, believed that, despite everything, the trial was a moment of hope for the possibility of justice and accountability in Guatemala. "This trial is a transcendent milestone internationally as well as for Guatemala despite the fact that the entire proceedings may have to be redone," she said in an interview in late 2013. "In 1633 the Inquisition annuls Galileo's findings, but Earth still revolves around the sun; in 2013 Guatemala's Constitutional Court annuls tribunal's genocide verdict, but Rios Montt [is] still guilty."⁴⁷⁰

II. Iraqi Kurdistan

THE FIRST YEARS of the 1990s also brought with them the chance for Snow and the Latin American forensic scientists to conduct an investigation into another large-scale act of violence—this time, halfway around the world. The Middle East researcher at Human Rights Watch, the watchdog human rights organization dedicated to documenting and publicizing human rights violations and abuses around the world, was in touch with Jalal Talabani, in Iraqi Kurdistan. Talabani would become the President of Iraq in the early 2000s; at the time, though, he was a leader of the Kurds, a persecuted minority in Saddam Hussein's Iraq. In the 1980s, the Kurds had been subject to various forms of state violence: aerial bombardments, village burnings, mass deportations, forced

⁴⁶⁶ Stuesse, "Sí Hubo Genocidio: Anthropologists and the Genocide Trial of Guatemala's Rios Montt."

⁴⁶⁷ Original Guatemalan Constitutional Court document overturning the conviction and issuing the annulment of the final days of trial available from Right 2 Info: Good Law and Practice.

<http://www.right2info.org/resources/publications/rios-montt-trial/Sentencia20mayo/view>

⁴⁶⁸ Elizabeth Malkin, "Genocide Trial of Guatemalan Ex-Dictator May Have to Restart," *New York Times*, May 21, 2015.

⁴⁶⁹ "Guatemala: Ex-Dictator is Found Unfit," *New York Times*, July 7, 2015.

⁴⁷⁰ Stuesse, "Sí Hubo Genocidio: Anthropologists and the Genocide Trial of Guatemala's Rios Montt."

disappearances, detention and torture, summary execution, massacres by firing squad.⁴⁷¹ Talabani wanted the world to know, as he did, that the Iraqi government had used chemical weapons on its own civilians. To do so, he got in touch with Middle East Watch, who contacted Clyde Snow. Stover remembered years later that the request from Talabani and Middle East Watch came to Snow out of the blue, but that the American forensic anthropologist took it seriously. Talabani communicated to Snow that he believed some 4,000 villages had been destroyed by chemical weapons attacks. He asked Snow and other forensic experts to visit Iraqi Kurdistan to document the atrocities and to prove, scientifically, that chemical weapons had been deployed against the Kurds.⁴⁷²

Anecdotal evidence suggested that they had been used. Witnesses claimed that the Hussein government had used chemical weapons during a series of campaigns against Iraq's Kurdish minorities in the late 1980s known collectively as Al-Anfal. Anfal is the title of a Sura, or chapter, of the Quran, and means "spoils," or booty, referring to plunder taken from infidels. The word in this context—a code name for the military effort that would become the Kurdish Genocide—clearly demarcated the Kurds as religiously alien and suggested that the violence exacted upon them was, in the eyes of the Iraqis, sanctioned by their religion.⁴⁷³ Between 1987 and 1989, seven successive Anfals took the lives of tens of thousands of Kurdish civilians—Human Rights Watch estimates 50-100,000, but according to Kurdish estimates the number is 182,000—saw the forced displacement of hundreds of thousands more, and the total destruction of 2,000 Kurdish villages. The Iraqis' goal, according to Human Rights Watch, "was to exterminate all adult males of military service age captured in rural Iraqi Kurdistan."⁴⁷⁴ The scale of the violence and brutality exacted upon Kurdish civilians—women, the elderly, and children—was enough to lead Human Rights Watch to compare Iraqi actions with those of Hitler's Nazi Germany. "The parallels are apt," the organization's 1993 report reads, "and chillingly close." Even some of the language was strikingly evocative of the Nazi campaign against the Jewish population of Europe: Iraqi leaders spoke of their "Kurdish problem."⁴⁷⁵

When they arrived in refugee camps over the borders—often in Turkey, on Iraq's northern border—Kurdish survivors of the Anfal campaigns recalled deportations, imprisonments, and massacres. They also spoke of chemical weapons: Iraqi planes flew over civilian targets and dropped barrels, rather than bombs. After a muffled explosion, the air began to sulfurous, like garlic or onions—the telltale sign of mustard gas—or to smell sweet, like melons or over-ripe apples, in the case of Sarin gas. Alerted by the smell, people would hang wet blankets on the walls of their homes, cover their faces with wet scarves, or jump into a body of water and try to stay fully submerged.⁴⁷⁶ Mustard gas was first used in World War I by the German army against British soldiers at a battle in Ypres, Belgium, in 1917. The Allies quickly responded with their own use of the gas, and the resulting burns, illness, and permanent injuries caused by the gas so shocked all sides that its use was

⁴⁷¹ See Black, *Genocide in Iraq*,

⁴⁷² Eric Stover in conversation with the author, June 2014.

⁴⁷³ As noted in Stover, *Unquiet Graves*, 1.

⁴⁷⁴ Black, *Genocide in Iraq*, 4-5, 96, 170.

⁴⁷⁵ Black, *Genocide in Iraq*, xii.

⁴⁷⁶ Black, *Genocide in Iraq*, 72, 271-73.

avoided on the battlefields of the Second World War.⁴⁷⁷ Sarin, also known as GB, was also developed by German scientists in the 1930s, in an effort to create a new type of pesticide. Sarin is a nerve agent, which means it interferes with the nervous system, causing seizures and paralysis.⁴⁷⁸ In large enough quantities, both of the gases are lethal.⁴⁷⁹ The most publicized alleged use of chemical weapons against Kurdish civilians occurred in 1988, in the Kurdish village of Halabja. In just one attack, somewhere between 3,500 and 5,000 people were killed, and another seven to ten thousand were injured. In the days following the attack, journalists were able to access the village to photograph and report on its aftermath, bringing Halabja to the world's attention. Yet the Iraqi government blamed the attack on Iran; the United States government publicly accepted Hussein's accusation, despite having intelligence reports that suggested the Iraqis really were the culprits.⁴⁸⁰

In March 1991, Kurdish fighters staged a successful uprising against Iraqi rule, and drove the government troops from the Kurds' territory in northern Iraq. The Kurdish resistance fighters took control of various secret Iraqi police stations in the region, where they found a detailed paper record of the regime's abuses against the Kurds—records that included audio and video recordings of interrogations and torture sessions, and handwritten lists of the names of prisoners who were executed or who died while being tortured. Also included were directives from Baghdad that ordered such mistreatment of Kurds suspected to be politically or militarily active, as well as the forced relocation of many thousands more.⁴⁸¹ These documents—all 14 tons of them, totaling an estimated four million sheets of paper—were, with the help of the US Department of State, transferred to the United States for safekeeping in the spring of 1992, in the custody of Middle East Watch.⁴⁸²

Kurds also began to look for the bodies of the Kurdish dead in the areas retaken by the *peshmerga*. Kurdish investigators started locating graves, shoveling away the dirt, and bringing human remains to the surface. Some were identified by family members or friends by their clothing or other belongings. Yet, like the early investigations of mass graves in Argentina, these exhumations did not produce evidence that could stand up to international scrutiny or in a court of law. As Stover remembered years later, Talabani hoped the American scientists' forensic expertise could expose and legitimate crimes against the Kurds just as they had in Latin America. The Kurdish leader invited them to conduct a short documentation mission in the area of Iraqi Kurdistan under his control, the area around the city of Sulaymaniyah, in the northeast of the country. Snow and Stover agreed to the

⁴⁷⁷ Thomsen, Eriksen, Smidt-Nielsen, "Chronic neuropathic symptoms after exposure to mustard gas: A long-term investigation," 187–190.

⁴⁷⁸ Zachary Laub, "What is Sarin Gas?" *The Council on Foreign Relations*. <http://www.cfr.org/weapons-of-mass-destruction/sarin/p9553>

⁴⁷⁹ For more on the use of chemical weapons by the Iraqi government against Kurdish civilians, see Cook-Deegan, Hu, and Shukri, *Winds of Death*. Physicians for Human Rights received a Nobel Peace Prize in 1997 for this and other studies on the use of chemical weapons on civilians worldwide.

⁴⁸⁰ Joost R. Hiltermann, "Halabja: America Didn't Seem to Mind Chemical Weapons," *New York Times*, January 17, 2003. For a longer investigation by the same author, see also Hiltermann, *A Poisonous Affair*.

⁴⁸¹ Stover, *Unquiet Graves*, 1, 12.

⁴⁸² The information gleaned from these documents, combined with extensive interviews done by Middle East Watch field staff and forensic investigations led by Clyde Snow, was compiled into the Middle East Watch report written by Black, *Genocide in Iraq*. This report provides a comprehensive report on the timeline and various facets of the Iraqi genocide of its Kurdish minority.

mission, and were joined by Karen Burns, another American forensic expert, and two members of the Argentine EAAF. They also recruited a freelance photographer named Susan Meicelas; a veteran in post-conflict situations, Meicelas had spent the early 1980s in El Salvador capturing the aftermath of the El Mozote massacre.⁴⁸³

The forensic scientists were not the first to visit the Kurdish area of Iraq with the intention of investigating and documenting suspected crimes. In October 1988, a team of doctors from a Boston-based organization called Physicians for Human Rights (PHR) visited refugee camps in Turkey, just north of that country's border with Iraq. Their goal was to document the impact the Anfal campaigns had on the bodies of the living—the injuries sustained as a result of torture and of chemical weapons. Although they were too far from the bombing sites to collect material evidence of chemical weapons use, they were able to interview and perform medical exams on survivors. Based on these exams, PHR's report team concluded that the stories of the survivors, as well as the blister scarring on their bodies, consistently fit with the use of mustard gas and potentially another form of chemical gas.⁴⁸⁴

Three years later, the team of forensic scientists invited by Talabani and Middle East Watch arrived to investigate similar questions, this time by examining the bodies of the dead. They touched down in Ankara, Turkey, and then traveled to Diyarbakir, a Turkish city on the banks of the Tigris River, near Turkey's southern border with Iraq. In December 1991, Iraqi Kurdistan was a no-fly zone, patrolled by American troops, so the team took an American army Blackhawk helicopter to the city of Sulaymaniyah, in the southern part of Kurdish territory. They met with Talabani in a hideout “somewhere in the desert,” Stover remembered later in an interview, and were asked by the Kurdish leader to travel throughout Kurdish territory, using forensic techniques to document crimes against the Kurds as they had done in Argentina, Chile, and Guatemala.⁴⁸⁵

On this first visit, the small team worked their way north from Sulaymaniyah to the Turkish border, visiting police stations—where they found dried blood and other evidence of torture—and four sites where locals claimed bodies had been buried during the Anfal campaigns.⁴⁸⁶ At each of these sites, dozens of local Kurds arrived to watch the forensic scientists work, standing near the gravesites to observe them coax the remains out of the sandy soil. In the team's final report, Stover wrote that, for the survivors who gathered around the gravesite, the grief caused by the discovery of bodies was only amplified by the disrespect that had been paid to the bodies after death. Traditional Muslim burial consists of preparing the body in careful ways: undressing and washing the skin and hair, and then wrapping the body in a cloth. The preparation of the grave itself is also important. Then, men dig a rectangular pit, and line it with flat stones, creating a kind of natural coffin. The cloth-wrapped body is then lowered into the stone-lined grave, and placed on its right side, so that the face looks toward Mecca.⁴⁸⁷ Exhumations quickly showed the locals that these burial customs

⁴⁸³ For Meicelas' photographs from Kurdistan, see *Kurdistan*. Her photographs of the El Mozote massacre site are published as *El Salvador*. For a beautifully written and comprehensive account of the El Mozote massacre and the subsequent forensic and documentation efforts, see Danner, *The Massacre at El Mozote*. Some of the same material was published in slightly different form in the *New Yorker* on December 6, 1993, as “The Truth of El Mozote.”

⁴⁸⁴ Cook-Deegan, Hu, and Shukri, *Winds of Death*, 12.

⁴⁸⁵ Eric Stover in conversation with the author, June 2014.

⁴⁸⁶ Stover, *Unquiet Graves*, 14.

⁴⁸⁷ Stover, *Unquiet Graves*, 11.

had not been observed. Although some of the graves were lined with rocks, with the individual lying alone they were often unwashed and still wearing clothes; in a case of “obvious disrespect for the dead,” as Stover wrote in the teams’ report, most were not facing Mecca.⁴⁸⁸

Yet, in discussions with local Kurds, the team found that the incorrect burials were not always a result of disrespect. The gravediggers, many of them Kurdish, told the forensic anthropologists they had been prevented from taking the time necessary to properly prepare the body and grave for burial.⁴⁸⁹ In other cases, Kurdish bodies were buried in their clothing in the hopes of making them more identifiable. When the forensic team visited Sulaymaniyah’s Saywan Cemetery, they met a gravedigger named Sadik Essa, how had been digging graves in the burial grounds for three centuries. Essa told the team that he buried the bodies of about six hundred people who had been killed by Iraqi state police in the late 1980s. Many of them had gunshot wounds to the head. He was warned repeatedly to “keep [his] mouth shut.” But he didn’t. “If I recognized someone,” he told the forensic team, “I’d go directly to the family.” But when he was tasked with burying bodies he did not recognize, Essa was thinking ahead to the people who would come along and dig them up. “Those I didn’t recognize I’d bury with their clothes on,” he told them, “so it would be easier to identify them later.”⁴⁹⁰ Out of respect, however, Essa placed the bodies in the grave on their sides, facing Mecca.⁴⁹¹

Two days after Christmas, Snow and the other forensic anthropologists exhumed four unmarked graves from a hillside in the Saywan Cemetery, a slope the locals nicknamed the “Hill of Martyrs” for the number of Kurds buried there who had been killed by Iraqi police. That day and the next, the forensic team worked on four separate graves, exposing the bodies and then removing the remains from the ground and moving them into the adjacent city morgue for examination. One of the bodies was determined to be far older than the other three, and lacking any evidence of trauma—likely not a victim of Iraqi executions. But the other three very clearly were. One, a young man Snow estimated to be between 17-22 years old, had a an oval chunk of skull missing above his left ear and a larger, more irregularly shaped hole at the back of his crown: a gunshot entry and exit wound. A second skeleton had two entry wounds—“probably from an automatic weapon,” read the team’s report—and only one exit wound. The other bullet, severely corroded by time, moisture, and body fluid, was recovered from inside the man’s skull.⁴⁹² The fourth body, that of a young female, had no bullet wounds. But Essa told Stover and Snow that he remembered burying her. She was attractive, he said, and had bruises around her neck as if she’d been strangled. Back at the morgue, they looked up her file, and it seemed that Essa was right. The assistant pathologist also remembered the attractive young woman, and located the report of the autopsy done on her body when she arrived. Sure enough, the pathologist had ruled that the woman was hanged to death with a rope.⁴⁹³

⁴⁸⁸ Stover, *Unquiet Graves*, 11.

⁴⁸⁹ Stover, *Unquiet Graves*, 11.

⁴⁹⁰ Testimony of Sadik Essa, in Stover, *Unquiet Graves*, 14.

⁴⁹¹ “Human Skeletal Remains Exhumed from Saywan Cemetery, Sulaymaniyah, Iraq, on December 27-28, 1991,” Appendix B in Stover, *Unquiet Graves*.

⁴⁹² “Human Skeletal Remains Exhumed from Saywan Cemetery, Sulaymaniyah, Iraq, on December 27-28, 1991,” Appendix B in Stover, *Unquiet Graves*.

⁴⁹³ Stover, *Unquiet Graves*, 16.

The final site the team visited in Sulaymaniyah was the Sardaw Military Base, the largest Iraqi military installation in the now-Kurdish-controlled northeast of Iraq. When the forensic anthropologists arrived at Sardaw in the last days of December 1991, local Kurds had already found forty-five graves on the grounds of the base. Only twenty-six of the bodies were Kurdish, though; the other nineteen were uniformed Iranian pilots. As they brushed dirt away from the Iranian bodies, a Kurdish onlooker stepped forward and told them that the Iranian pilots had crashed in Iraqi territory, where they were captured, brought to the base, and then shot by Iraqi military troops. The bodies were buried alongside Kurdish dead, with the pilots' identifying military dog tags tucked into glass jars between their legs. The bodies of these Iranian pilots provided another piece of evidence against the Hussein regime: executing captured prisoners of war constituted a grave breach of the Geneva Convention.⁴⁹⁴

As was true during the Katyn Forest exhumation, the scientific proof itself did not garner as much public attention as the simple fact of the exhumation itself. Susan Meicelas' vivid photographs ran as a cover story in the *New York Times Magazine*. A photo of a woman in a long, dark blue dress, kneeling by a grave full of twisted, mummified human remains, her hands on her head in disbelief and grief, graced the cover under the headline, "Iraq Accused: A case of genocide." Inside, readers found a photo of Snow, looking every bit the Texas cowboy, in a blue broad brimmed hat and leather jacket, kneeling in a grave; another showed rows of Kurdish locals standing next to freshly dug pits, their eyes on Snow as he surveyed the grave. Others showed brightly colored pieces of clothing laid out on the ground in the hope that family members might recognize what a loved one was wearing when he or she died. Meicelas' photo spread in the *Magazine* "kind of blew open" the story, Stover remembered in an interview years later. "The reason I think that was is this idea that visually, you're showing this scientific investigation."⁴⁹⁵ Exposing the bodies to the light of day and then exposing them on film offered evocative, convincing proof of Iraqi atrocities in a way that even eyewitness testimony could not.

The following May, Middle East Watch and Physicians for Human Rights collaborated to send a larger team of forensic anthropologists to Koreme, a Kurdish town in the Zagros Mountains, some 30 miles from the Turkish border. The team of forensic scientists had two objectives in the area surrounding Koreme: first, to determine whether it was possible to prove that chemical weapons had been used; and second, to exhume graves to investigate Kurdish claims that they had been subject to massacres and systematic executions at the hands of the Hussein government. Efforts to prove the use of chemical weapons focused on a tiny village called Birjinni.⁴⁹⁶ At dawn on August 25, 1988, survivors reported that Iraqi bombers began to circle Birjinni, and the 30 families that lived in the village braced themselves for aerial bombings, something that had become a common occurrence. Survivors told the investigators from Middle East Watch and Physicians for Human Rights that this time was different: when the planes dropped their bombs, the explosions were much quieter than normal. Then they saw the smoke. It was "white, black, and then yellow," an eyewitness told investigators, "rising about 50 or 60 meters into the air in a column. Then the

⁴⁹⁴ Eric Stover in conversation with the author, July 2014. See Stover, *Unquiet Graves*, 19.

⁴⁹⁵ Eric Stover in conversation with the author, June 2014.

⁴⁹⁶ "The chemical weapons attack at Birjinni," in *Iraqi Kurdistan*.

column began to break up and drift. It drifted down into the valley, and then passed through the village. Then we smelled the gas for the first time.”⁴⁹⁷ As the smoke settled into the valley around the village, survivors told the investigators, Birjinni’s inhabitants tried to run for higher ground. There was no time or breath to spare in digging graves, and the fleeing villagers left their dead where they fell. A few days later, Iraqi soldiers arrived, threw the bodies into mass pits, and razed the village, knocking down houses with backhoes and rigging houses with explosives.⁴⁹⁸

When the forensic team arrived in Birjini in June 1992, their goal was not so much to definitively prove that chemical weapons had been used four years earlier. Their goal was instead to find any evidence that would rule out a chemical attack—that is, any evidence that would determine an likely alternative to explain what the surviving villagers had reported and the physical traces they could find in the village. They found a total of twelve craters that could have been formed by the landing and subsequent detonation of chemical bombs; they were in a straight line, about thirty meters apart—consistent with the reports of eyewitnesses about planes flying low and slow as they dropped the bombs. An archaeologist on the team took soil samples from four of the craters to see if they could find any evidence of chemical compounds.⁴⁹⁹ Testing of soil and tissue samples from the graves would later reveal the presence of compounds from Sarin and mustard gases, offering compelling scientific proof that chemical weapons were used on Kurdish civilians.⁵⁰⁰

Then Snow and the forensic team traveled back to Koreme to begin examining skeletal remains. In a scouting mission earlier in the year, Snow had identified a potential mass gravesite located some two hundred meters from the central part of town. There, villagers had reported that Iraqi soldiers had lined up Koreme’s young men and forced them to squat in a row. Then they opened fire. The bodies, the villagers told the team, were buried in a mass grave nearby.⁵⁰¹ The forensic scientists started their investigation with the execution site, which was located on the side slope of a hill, not directly visible from the town proper. They established where the firing line had been, as well as the location of the parallel victim line. Then two forensic archaeologists crawled along the two lines, searching meter wide sections on their hands and knees. Villagers helped to carefully clear brush and other grasses from each strip in preparation for the archaeologists’ search, and then marked the locations of each artifact as they turned up. According to the team’s forensic report, the majority of the artifacts retrieved were spent brass, or empty cartridges that used to house bullets.⁵⁰²

Fifteen years later, when Saddam Hussein was put on trial in American-controlled Iraq, Snow flew to Kabul to testify about what the forensic team had found in Hussein’s Anfal Trial, which sought to prosecute the former leader for his crimes against Iraq’s Kurds. On November 28, 2006, the American anthropologist testified in front of the court about the bodies, bullets, and bombing patterns the forensic teams uncovered.⁵⁰³ Snow showed the court photographs of the

⁴⁹⁷ “The chemical weapons attack at Birjinni,” in *Iraqi Kurdistan*.

⁴⁹⁸ “The chemical weapons attack at Birjinni,” in *Iraqi Kurdistan*.

⁴⁹⁹ “Investigations by the forensic team,” in *Iraqi Kurdistan*.

⁵⁰⁰ Hay and Roberts, “The Use of Poison Gas Against the Iraqi Kurds: Analysis of Bomb Fragments, Soil, and Wool Samples,” 1065-1066.

⁵⁰¹ “Investigations by the forensic team,” in *Iraqi Kurdistan*.

⁵⁰² Briscoe and Snow, “Archaeological Report on Koreme, Birjinni, and Jeznikam-Beharke Cemetery,” in *Iraqi Kurdistan*.

⁵⁰³ See, e.g., video footage in *The trial of Saddam Hussein*.

Koreme exhumations. As he flipped through his slides, pictures of skeletons washed over one of the courtroom walls. He pointed out the bullet wounds, 80 holes in total, mostly in the skulls; Hussein's defense counsel interrupted, demanding the anthropologist's evidence be thrown out. He was, the Iraqi lawyer said, "a biased American."⁵⁰⁴ The following day, Douglass Scott, an American expert in battlefield archaeology, told the court that the bullets and casings found at the execution site were consistent with Kalashnikovs, and that spray pattern they formed on the ground indicated "firing-squad type organization."⁵⁰⁵ In response, Hussein demanded "neutral countries like Switzerland" be called in to examine the evidence found in mass graves.⁵⁰⁶ Those Swiss scientists were never called, and the Americans' testimony ultimately made no difference. Hussein's Anfal trial was never completed. A month after Snow testified about the massacre in Koreme, the former dictator was convicted for another crime in a concurrent trial—the *Dujail* Trial, in which he was charged with the murder of 148 opposition party members in a town about forty miles north of Baghdad—and executed by hanging before the Anfal trial could be completed. Rather than continue to try the dictator posthumously, the Iraqi High Tribunal closed the case. The legal question of whether the Kurds were victims of genocide, as a 1993 Middle East Watch report labeled the Anfal campaigns, went unanswered.

* * *

IN THE LATE 1980s, around the same time as Snow's first trips to Argentina and his early efforts to train forensic scientists to maintain high legal and ethical standards in mass grave exhumations, there were others thinking about the necessity of preserving forensic evidence from large graves for the future possibility of war crimes trials. In 1984, a group of American lawyers formed the Minnesota Lawyers International Human Rights Committee—now known as Advocates for Human Rights—to address a problem they anticipated in any future attempts to put large scale, international crimes on trial: there was no uniform standard operating procedure, or even an agreed-upon set of best practices, for investigating politically motivated assassinations or murders around the world. They believed that the forensic and legal community had a responsibility to establish an investigatory standard that was both credible and neutral, that would address all aspects of an investigation, from standards for investigation—such as setting up a commission of inquiry, collecting witness statements, etc.—to standards for disinterring human remains and performing autopsies. Barbara Frey, one of the group's founding members, remembered that their primary goal was to create for large-scale international crimes "a protocol that closely modeled what a homicide police investigation entails—the law, autopsies, and forensic evidence."⁵⁰⁷ In 1987, the lawyers invited forensic, legal, and human rights experts to a conference in central Minnesota to set the final details

⁵⁰⁴ Michael J. Kelly, "The Anfal Trial Against Saddam Hussein."

⁵⁰⁵ Michael J. Kelly, "The Anfal Trial Against Saddam Hussein."

⁵⁰⁶ "Kurd witness mocks 'caged' Saddam," *BBC News*, September 12, 2008.

⁵⁰⁷ Ruben Rosario, "Justice achieved in Guatemala, thanks to the Minnesota Protocol," *Twin Cities Pioneer Press*, May 16, 2013.

of the protocol. Snow attended, bringing with him his recently field-tested understanding of what such investigations had required in Argentina.⁵⁰⁸

The group's final report was published as *The Minnesota Protocol: Preventing Arbitrary Killing Through an Adequate Death Investigation and Autopsy*. In 1991, the United Nations adopted the protocol, and incorporated it into the *United Nations Manual on the Effective Prevention and Investigation of Extra-Legal, Arbitrary, and Summary Executions*, effectively bestowing upon the Protocol the status of an internationally-recognized standard.⁵⁰⁹ Because Snow was both a pioneer in the field of forensic investigation prior to the creation of the protocol and a participant in that creation process, implementing the protocol was not a major departure from his normal *modus operandi*; ultimately, though, the very fact that there was an international standard and that his forensic teams operated according to the rules it laid out would become important more than two decades later, when forensic evidence collected by Snow and the FAFG was presented at the trial of former Guatemalan dictator Efraín Ríos Montt; in press coverage of the trial and in the courtroom, the existence of the Minnesota Protocol—and the adherence of the forensic scientists to it—was seen as giving weight and legitimacy to the evidence they presented.⁵¹⁰

Although the establishment of the EAAF in Argentina and the Mengele investigation paved the way for international cooperation over the exhumation of bodies in human rights investigations, the exhumations in Guatemala and Iraq, as outlined in this chapter, marked subtle shifts in the internationalization and global standardization of forensic investigations into mass graves, a move that helped to pave the way for the international war crimes trials and tribunals of the mid-1990s. Viewed as experiments in discovering the potential of forensic evidence in war crimes and human rights investigations, Guatemala and Iraq display subtle shifts in the complexity—for example, working in dangerous or live-conflict situations, independent from and even in opposition to national governments. This movement out of Latin American and onto an international stage, as well as the use of standardized forensic procedures concludes the *Experimentation* section. The next case—involving Australian investigators who traveled to Ukraine to exhume graves for that country's war crimes trials—is a marked departure in form from the Argentine, Guatemalan, and Iraqi cases in that it was not just done to determine the facts of what happened, but explicitly in the context of a legal proceeding, with the stated and primary intention not only to right historical fact but to bring the perpetrators to justice in a court of law.

⁵⁰⁸ Ruben Rosario, "Justice achieved in Guatemala, thanks to the Minnesota Protocol," *Twin Cities Pioneer Press*, May 16, 2013.

⁵⁰⁹ The Minnesota Protocol was updated in 2015, and a revised version was released to the public in spring 2016. The text of the revised Protocol is available at <http://www.ohchr.org/EN/Issues/Executions/Pages/RevisionoftheUNManualPreventionExtraLegalArbitrary.aspx>

⁵¹⁰ See, e.g. Beydoun, "Forensic Evidence Testimony Shows Guatemala Investigation's Strengths"; Ruben Rosario, "Justice Achieved in Guatemala, Thanks to Minnesota Protocol," *Pioneer Press*, May 16, 2013.

PART III

BREAKTHROUGH: International Criminal Tribunals

6. Australia, 1990-1991

7. Croatia and Rwanda, 1992-1996

CHAPTER 6

Australia, 1990-1991



AROUND 7:30 ON the evening of July 29, 1990, on a dark footpath in Trimmer Parade, a suburb of Adelaide, South Australia, a teenage boy found an elderly Ukrainian man lying in a pool of blood, a bullet lodged in his chest.⁵¹¹ The man's name was Ivan Timofeyevich Polyukhovich, and, although the skateboarding teen didn't know it when he flagged down a passing motorist for help,⁵¹² he was on trial for murder—a lot of murders. And that evening, Polyukhovich had tried to kill himself as well.

⁵¹¹ Associated Press, "War Crimes Defendant Shot on Eve of Trial," *Los Angeles Times*, July 30, 1990; "War crimes hearing man shot," *The Australian*, July 30, 1990.

⁵¹² Bernard Humphreys, "Polyukhovich Shot," *The Advertiser*, July 30, 1990.

Polyukhovich was born in 1916 in Serniki, a small village north of Rovno, in what is today Ukraine. As a young man during the Second World War, Ivanechko, as friends knew him, was a forest warden in Nazi-occupied Ukraine. After the war, in 1949, Polyukhovich and his second wife, Maryia, along with her two daughters, Anna and Luba, received Australian visas and emigrated to the suburban sprawl of Adelaide, the capitol city of South Australia, in the province of New South Wales. Mild mannered and well liked by their neighbors, Ivanechko and Maria purchased a small bungalow on a quiet suburban street, and settled into their new life. On February 25, 1958, Ivanechko became an Australian citizen. Polyukhovich worked as a farm laborer and eventually a public servant. In his retirement, he tended bees in his backyard, and shared the honey with his neighbors.⁵¹³ In every outward indication, Polyukhovich seemed to be an example of modest success and contentment in the country that offered him refuge from the ashes of Europe in the wake of the war.

It was the collision of his two worlds, though—the pleasantly mundane Australian present, and his perhaps darker, shadowy Ukrainian past—that would lead Polyukhovich to hold a .22 caliber Beretta to his chest and pull the trigger.⁵¹⁴ Earlier that year, in January 1990, the High Court of Australia had charged Polyukhovich with nine offenses, including the murder of 24 Jews and complicity in the murder of 850 others in September 1942 in German occupied Ukraine.⁵¹⁵ His committal trial was scheduled to start that morning; instead, Polyukhovich spent the morning in Queen Elizabeth Hospital in Adelaide undergoing emergency surgery to remove a bullet from his chest.⁵¹⁶

NEARLY NINE THOUSAND miles away from the spot Polyukhovich tried to kill himself, in the still-Soviet Ukraine, a team of six Australian forensic experts and police investigators had recently spent six weeks investigating gunshot wounds of a different kind.⁵¹⁷ The team had arrived in the town of Rovno, in Ukraine’s westernmost region, on July 11, 1990. There, they met the Procurator for the western half of the Soviet Union, a woman the team called, even in her absence, “Madam Koleznekova.”⁵¹⁸ Joining her in this unprecedented moment of east-west forensic collaboration were three local Rovno Procurators, and an enthusiastic team of Soviet forensic experts.⁵¹⁹ The following morning, the whole group drove just over 100 miles north from Rovno to the village of Serniki, where they were joined by a detail of boyish looking Soviet soldiers—who were to provide the manual labor opening a grave requires—and a thin, dark haired local man who, despite the oppressive summer heat, wore a three piece black suit and brimmed cap. At 64, this man had lived his entire life in Serniki, in a house less than five hundred meters from the area of the forest where, he told the Australians through an interpreter, they would find a grave. Fyodor was 16 in September

⁵¹³ Bernard Humphreys, “Polyukhovich Shot,” *The Advertiser*, July 30, 1990.

⁵¹⁴ “Pistol and Cartridge Cases Near Shot Man,” *The Canberra Times*, July 31, 1990.

⁵¹⁵ Information for an Indictable Offense, pursuant to the *Justices Act 1921*, 26 January 1989, Robert William Reid, informant; see also Fraser, *Daviborsch’s Cart*, 5.

⁵¹⁶ Bernard Humphreys, “Polyukhovich Shot,” *The Advertiser*, July 30, 1990.

⁵¹⁷ Testimony of David Hughes, Polyukhovich Committal Hearing, Transcript of Proceedings, November 11, 1990, 99.

⁵¹⁸ Spelled Kolesnikova in the official trial transcripts, and variously as Koleznikova and Koleznekova in published material.

⁵¹⁹ Testimony of David Hughes, Polyukhovich Committal Hearing, Transcript of Proceedings, November 11, 1990, 100.

1942, when the town's Jews were forced from the ghetto and marched to a prepared pit in the woods.⁵²⁰ Each then received a bullet—for most of them, a 9-millimeter lead bullet—through their skull. The local man remembered that he, along with several other young men from Serniki, were forced by the Germans to fill in the grave after the murders.⁵²¹

Fyodor Polyukhovich led the Australian forensic team to a place in the woods. The team's leader, a Professor of Forensic Archaeology at the University of Sydney named Richard Wright, remembered, "There was no grave showing, in fact quite the contrary. It was impossible to see any traces using the ordinary archaeological techniques," such as looking for certain kinds of vegetation that grow abundantly in the nutrient-rich soil covering mass graves.⁵²² Yet the local man insisted they were standing on a huge grave; approximately, he told the team through a translator, fifty to sixty meters long by five meters across.⁵²³

This meant that a lot of dirt needed to be moved. The area was swept for unexploded metal devices, and then, just after 11 o'clock in the morning on the 16th of July, digging began. Video filmed by one of the Australian police investigators shows the young Soviet soldiers digging with shovels, scooping loose, dry, sandy soil onto four-handled sleds that, once full, were carried between two of them into the forest and tipped over. Then they returned to the gravesite, and repeated the process. Once a small hole dug on the presumed border reached about chest deep, Professor Wright hopped into it, and, crouching low, smoothed the wall with his trowel. "This is the line that marks the boundary between disturbed and undisturbed ground," he said, pointing to a distinct vertical line in the soil. In this pit a line dramatically demarked the undisturbed and disturbed soil, the first consisting of "layers of sand with some clay, and bands of orange iron which had been precipitated possibly since the last ice age." When the grave was dug through the layers, however, and then refilled, "all the bands are broken up, so you get lumps of colored clay material in the filling of the hole," creating a mottled appearance.⁵²⁴ He squinted into the sunlight. "So, this may be the boundary of the grave."⁵²⁵

The village of Serniki lay in the northwestern corner of the Ukrainian Soviet Socialist Republic, in the region of Volhynia-Poldolia. Serniki spent the first half of the twentieth century being passed back and forth between several countries. Before the First World War, the village was part of the Russian Empire. After that empire's fall, in 1917, the German and Russian-signed Treaty of Brest-Litovsk placed Serniki in the newly minted and short-lived Ukrainian Republic. With Germany's defeat in 1918, the Soviet Union retook control of Serniki before losing it to Poland at the conclusion of the Soviet-Polish war in 1921. Serniki continued to change addresses during the Second World War: it was taken by the Soviets in September 1939, by the Germans in 1941, and again by Soviet forces in 1944, upon the German retreat. During the German advance into the

⁵²⁰ "The Charges Against Him" *The Advertiser*, July 30, 1990.

⁵²¹ Wright, "Where Are the Bodies? In the Ground," 98.

⁵²² Wright, Hanson, and Sterenberg, "The Archaeology of Mass Graves," 143.

⁵²³ Testimony of Richard Wright, Polyukhovich Committal Hearing, Transcript of Proceedings, November 12, 1990, 226.

⁵²⁴ Video recording of Serniki exhumation, in possession of the author; Testimony of David Hughes, Polyukhovich Committal Hearing, Transcript of Proceedings, November 11, 1990, 106; Testimony of Richard Wright, Polyukhovich Committal Hearing, Transcript of Proceedings, November 12, 1990, 218-220.

⁵²⁵ Video recording of Serniki exhumation, in possession of the author.

Soviet Union, in June 1941, the area surrounding Serniki fell between the advancing German Army Group Center and Army Group South, and infantry divisions of each worked quickly to secure roads and bridges in the area between them. The largest city in the region, Pinsk, just under 200 miles to the northeast of Serniki, was taken by the German 45th division on July 4, 1941. By July 8, Serniki was well behind German lines, but was too small to be garrisoned.⁵²⁶

Polyukhovich was born in Serniki in 1916, but lived for most of his life in the village of Alexandrove, about five kilometers to the south.⁵²⁷ Before the war, Serniki was a farming village of about five thousand people on the River Stubla, surrounded by marshland and forests. Prior to the war, the Ukrainian people in Serniki farmed small plots of land, while the Jewish population of the town ran the small amount of commerce, including the post office, the general store, as well as working as artisans, traders, and farmers. According to the witnesses from Serniki who testified at Polyukhovich's trial, relations between the Jews and Ukrainians in the village had been good prior to the war, even close.⁵²⁸ One woman testified that Moyshe Kriniuk, the Jewish man who ran the wholesale grocery store in town, regularly extended credit to his cash-strapped Ukrainian customers, and was well liked and respected for it.⁵²⁹

Polyukhovich was a forest warden, a position that brought him into contact with the occupying German administration. Forests were of particular interest to the occupying Germans. They provided wood for the carts that transported German ammunition and supplies, and for heating both local and German homes and buildings. For the SS and the military, forests were also a political and security liability, where partisan fighters could take cover and escaped Jews could find refuge. The German administration recognized that they simply lacked the manpower and experience to control the forests, and maintained in their positions the professionally trained foresters in the region, both Polish and Ukrainian. For every German forester, there were ten or twelve locals, and the native foresters were even given supervisory roles, and were issued weapons.⁵³⁰ Polyukhovich, the prosecution alleged, was one of these foresters who worked for the Germans.

The prosecution's case alleged that the Holocaust had come to the Serniki in 1942, when a ghetto was established along the River Stubla, on the edge of town. In the second half of 1942, a series of ghetto liquidations began in Volhynia-Podolia, and quickly made their way to Serniki. In early September 1942, the prosecution alleged, the huge pit was dug in the woods outside the town of Serniki. Some Jews, seeing the writing on the wall, escaped into the forests, where foresters such as Polyukhovich were sent to round them up. But the vast majority did not or could not flee. Three days before Rosh Hashanah, they were rounded up in the ghetto, and marched "roughly" to the prepared grave, stripped naked, and executed by shooting.⁵³¹ According to the Crown's case, Polyukhovich, in his position as a forest warden for the German occupying authorities, participated

⁵²⁶ Crown Opening, Polyukhovich Committal Hearing, Transcript of Proceedings, October 28, 1990, 16; Testimony of Raul Hilberg, Polyukhovich Trial, Transcript of Proceedings, March 18, 1993, 73.

⁵²⁷ Crown Opening, Polyukhovich Committal Hearing, Transcript of Proceedings, October 28, 1990, 7, 13; "Trial opens for pensioner accused of a war crimes," *The Australian*, March 19, 1993.

⁵²⁸ Crown Opening, Polyukhovich Committal Hearing, Transcript of Proceedings, October 28, 1990, 14.

⁵²⁹ Bevan, *A Case to Answer*, 3.

⁵³⁰ Crown Opening, Polyukhovich Committal Hearing, Transcript of Proceedings, October 28, 1990, 29; Testimony of Raul Hilberg, Polyukhovich Trial, Transcript of Proceedings, March 18, 1993, 88-92.

⁵³¹ Crown Opening, Polyukhovich Committal Hearing, Transcript of Proceedings, October 28, 1990, 38.

in the round up and execution of Serniki's Jews. It was this grave, the one suspected to hold Serniki's Jews, that the Australian team traveled to Ukraine to find some five decades later.

* * *

IT WAS PERHAPS a twist of historical fate that sent Australian investigators to exhume a 50-year-old mass grave in the still-Soviet Ukraine for the trial of a naturalized Australian citizen accused of killing hundreds of Jews with the Nazis. This chapter presents the story of the Australian government's efforts to find, investigate, and prosecute crimes committed by people—such as Polyukhovich—who had been Nazi collaborators and who, after the war, immigrated to Australia and became citizens. The three prosecutions that ultimately went to trial all presented opportunities to utilize forensic experts and forensic investigative methods; that is, all three of the men were accused of participating in the creation of a mass grave. Yet the choice to actually exhume those graves in the context of these trials was not at all an obvious one. Most obviously, the graves were not located on Australian soil, but instead half a world away in Ukraine, which would not declare its independence from the Soviet Union until August 1991, more than a year after the Australian team's work in Serniki. The cooperation required to investigate a crime on one country's soil to locate evidence for a criminal case held in a different country was unprecedented in international human rights-focused forensic work; by the mid-1990s, however, with the establishment of international criminal tribunals, these kinds of negotiations would become *de rigueur*.

The Australian exhumations in Ukraine thus mark a pivot point in this history of forensic investigations into human rights violations and atrocities. As the team of Australian forensic scientists returned to the Europe to conduct the first exhumation of a mass grave done on that continent since Katyn, they also found themselves pioneering a form: the first mass grave exhumation of an international crime done under the auspices of a legal proceeding—as a prosecutorial, evidence-gathering strategy—rather than in the context of human rights advocacy and exposure, as was the case in Latin America, or a documentation mission as was done in Iraq. Snow and the Latin American forensic teams had focused on family and survivor needs, as well as establishing a historical record of human rights violations and had adhered to a universalized standard of evidence in case there would be war crimes trials, in Australia the forensic work was done explicitly for war crimes trials. The prosecution at the court assembled the investigators and forensic scientists, commissioned their work, and defined the boundaries of their investigation and the questions that needed answering. These Australian cases took the use of forensic investigation in cases of war crimes or human rights to their next logical step: from investigations for humanitarian purposes that kept in mind the possibility that there may be trials, to investigations for trial purposes that kept in mind the possibility that there was also humanitarian interest in the graves. The work of the Australian forensic team occurred at precisely the moment the focus of human rights work began to shift from humanitarian to prosecutorial, and its links to the future of human rights investigations and prosecutions were more than theoretical or methodological: many of the Australian forensic scientists and investigators from the Special Investigations Unit moved the SIU to the International Criminal Tribunal in 1993 and 1994, when the Australian war crimes trials were

winding down and investigations into crimes in the former Yugoslavia were picking up steam. Beginning in 1993, Graham Blewitt, head of the Australian SIU, served as Deputy Chief of Investigations at the ICTY.

Two books have been written about the Australian war crimes prosecutions. David Bevan, a journalist who reported on the trials for the Adelaide newspaper *The Advertiser*, provides a comprehensive overview of the complex historical, investigative, and legal processes at play in the Australian war crimes investigations and trials. Bevan does not detail, however, the specific role or significance of forensic science.⁵³² Forensics plays a far greater role in the second book on the subject, *Daviborsbch's Cart: Narrating the Holocaust in Australian War Crimes Trials* by historian David Fraser, which examines the challenges the Crown prosecution team faced as it struggled to reconstruct Holocaust massacres in Ukraine in late twentieth century Australia.⁵³³ The idea of placing fifty-year-old events in a Ukrainian forest, beside a killing pit outside a village, before an Australian court was difficult, if not impossible," Fraser writes. "To add to that challenge, narrating the reality of wartime conditions, occupation, and the facts of local collaboration in the mass killings of the Jewish population [...] was apparently beyond the capacities of both historical and legal discourse to explain in a way that might have been comprehensible to 1990s Australians."⁵³⁴ Sending a team of scientists and investigators six thousand miles afield from Adelaide to uncover, examine, and photograph the physical remains of those mass killings, Fraser writes, was one way the Crown prosecution and the Special Investigations Unit sought to make the charges and the crimes they stemmed from legible, tangible, and meaningful to an Australian jury in the early 1990s. Even so, neither of these books on the Australian Special Investigations Unit explicitly connects the challenges it faced—of prosecuting crimes temporally and geographically far from their commission, especially when the scale of those crimes challenges the imagination—with similar hurdles faced by the international criminal tribunals that came later. In the stories they tell, however, these books do point to a growing recognition that prosecution of international crimes or large-scale human rights violations posed unique challenges.

The turn toward forensic science was—in the Australian case as it would be later in investigations into and prosecutions of more recent genocides and large-scale human rights investigations—a way to overcome the difficulties of proving mass atrocities, international crimes, and human rights violations in international courtrooms. In the most basic sense, forensic evidence can help to distinguish between an international crime and an act of war. In legal terms, not every civilian death in war is a crime; as the existence of a mass grave filled with the bodies of civilian noncombatants with, perhaps, execution-style fatal bullet wounds, provides persuasive evidence that the civilian deaths were not collateral, but criminal.⁵³⁵ The Australian war crimes tribunal also showed in microcosm the challenges that would face international criminal tribunals more generally over the use of witness testimony, and the need to corroborate it with other kinds—in this case,

⁵³² Bevan, *A Case to Answer*.

⁵³³ Fraser, *Daviborsbch's Cart*.

⁵³⁴ Fraser, *Daviborsbch's Cart*, 268.

⁵³⁵ International criminal prosecutor in conversation with the author, October 2012.

forensic or material. Witness testimony is notoriously fragile,⁵³⁶ in cases involving years-old crimes that occurred far from the courtrooms that prosecute them, witnesses were hard to come by. Anyone who had been old enough to remember the crimes or the graves when they were first made would have been well into their sixties, and likely older. They also would have lived their entire lives in small, rural towns in Soviet Ukraine, unaccustomed to traveling far from their homes, let alone overseas. Documentation was similarly difficult to find; Greenwood also anticipated that it would be even harder to get Cold War-conditioned Australians sitting on the jury to believe any documentation from the Soviet Union was reliable enough to warrant a conviction.

These challenges would be replicated in the courtrooms of the international criminal tribunals that opened their doors in the 1990s to prosecute more modern crimes. In historical perspective, the Australian-led exhumations of Holocaust victims in Ukraine can be understood as a testing ground for how and in what ways forensic evidence could help international courtrooms and prosecutors to meet those challenges in the next major development in human rights investigations: the turn toward international, largely United Nations-run tribunals set up to investigate and prosecute war crimes, crimes against humanity, and genocide.

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THE SECOND WORLD War left in its wake the largest humanitarian crisis the world had ever seen. Europe was strewn with millions of displaced persons, some with no ability or desire to return home, some with no home to return to. Australia, along with other countries, opened its doors for some of these refugees. During the war years, Australia had experienced a net migration loss, and members of the government felt acutely that the war had highlighted Australia's weakness: a large country with such a small population, officials thought, could not be defended. The crisis of displaced persons in Europe thus provided the opportunity to boost Australia's population. In 1945, Australia launched a migration program aimed at increasing the country's population by one percent annually. By 1950, almost 200,000 European immigrants—"reffos," in Australian slang—had arrived.⁵³⁷ Polyukhovich, his wife Mariya Andreyevna Polyukhovich, and her daughters Anna and Luba, were four of those 200,000.

In the postwar period, a complex vetting process was established by the Allied powers, including Australia, to prevent former Nazis and "Nazi elements" from joining refugees in leaving Europe and immigrating to countries where they would be able to cover their past. Yet in its focus on people of German nationality as potential former Nazis, it overlooked non-German Nazi collaborators from countries such as Yugoslavia, Hungary, Poland, and Ukraine, and may have allowed non-Germans with questionable pasts to enter Australia.⁵³⁸ The prosecution's case against Polyukhovich alleged that he was a illustrative case in which the vetting process had failed. The Polyukhovich family left Serniki with the retreating German army in 1943, and moved to Minsk and

⁵³⁶ For a recent discussion of witness testimony in international criminal tribunals, see Combs, *Fact Finding Without Facts*; for an older, but classic account of the fragility of witness memory and testimony, see Loftus, *EyeWitness Testimony*.

⁵³⁷ Commonwealth of Australia; Department of Immigration and Citizenship (DIAC), "Fact Sheet 4 – More Than 65 Years of Post-war Migration." <http://www.immi.gov.au/media/fact-sheets/04fifty.htm> .

⁵³⁸ Fraser, *Daviborsch's Cart*, 52.

then ultimately to Germany where they were issued work permits by the German government. Upon Germany's surrender in 1945, the Polyukhovich family landed in Fallingbostal, Germany, in a displaced persons camp. It was there that Australian officers interviewed them. Polyukhovich passed the interview, and completed the requisite paperwork, and in 1949 he and his family were given Australian visas.

Reports of former Nazis arriving in Australia, "infiltrating" Australian displaced persons camps and "boasting of their former Nazi activities" surfaced almost immediately following the refugees' arrival, and sprang up sporadically over the decades that followed.⁵³⁹ Yet it took a series of radio broadcasts in April 1986 to garner the necessary public and political will to reopen the question of war criminals living as Australian citizens or residents. In the mid-1980s, a Jewish Australian journalist named Mark Aarons visited archives in the countries of western Soviet Union, including Ukraine, to investigate allegations that war criminals had emigrated to Australia after the war.⁵⁴⁰ Based on Aaron's archival research and interviews with people living in Australia and in the Soviet Union, the Australian Broadcasting Company's (ABC) radio program *Background Briefing* ran a series called "Nazis in Australia." Aarons' report concluded "that between 150 and 200 ex-Nazis illegally entered Australia under our postwar immigration schemes," some with the knowing consent of the Australian government.⁵⁴¹

Aarons' broadcasts aired at a particularly fruitful moment, one where it was possible to galvanize public awareness and political will to reopen this chapter of Australia's history. Canada and the United Kingdom had begun inquiries into their own immigration histories around the same time, and, as an Australian investigator said decades later, in the mid-1980s in Australia as well "there was a brief moment where accountability was taken seriously."⁵⁴² Additionally, the Australian Jewish community began pushing the issue harder than ever before, and the Executive Council of Australian Jewry decided that lobbying the federal government to deal with the Nazi war criminals issue as its top priority.⁵⁴³

In response to growing public concern, the Australian Parliament appointed a politician and lawyer named Andrew Menzies on June 25, 1986, to investigate whether war criminals had entered Australia and, if so, whether further investigation into their presence in the country or their past crimes was called for.⁵⁴⁴ When Menzies' report was presented to Parliament on November 28, 1986, it found "it was more likely than not that a significant number of persons who committed serious war crimes did enter Australia"—numbers greater, perhaps, than one or two hundred the ABC Radio broadcasts had initially offered. The report recommended that a dedicated unit be established to investigate and prosecute Australia's suspected war criminals. In order to allow Australian courts to pursue such prosecutions, the report noted, Parliament would have to amend the Australian War Crimes Act. Parliament had passed that Act on October 11, 1945, "to make provisions for the trial

⁵³⁹ "Migrants Tell Startling Stories To Police Of Ex-Nazis Here; ADMISSIONS ALLEGED IN STATEMENTS," *The Sunday Herald*, December 18, 1949. See also *Report of the Investigations of War Criminals in Australia*, 173.

⁵⁴⁰ See Aarons, *War Criminals Welcome*, 283-389.

⁵⁴¹ Aarons, *Sanctuary*, xxix.

⁵⁴² Special Investigations Unit investigator in conversation with the author, July 2013.

⁵⁴³ See Caplan, *Road to the Menzies Inquiry*.

⁵⁴⁴ Menzies, "Review of Material Relating to the Entry of Suspected War Criminals into Australia."

and punishment of violations of the laws and usages of war committed during any war in which His Majesty has been engaged since the second day of September, One thousand nine hundred and thirty-nine.” It was, however, limited to offenses “against any persons who were at any time resident in Australia.”⁵⁴⁵

The Menzies Report recommended expanding the Act to allow prosecution in Australia if a person had committed serious crimes in Europe during World War II and then subsequently become a citizen or resident of Australia. In a speech to Parliament on October 28, 1987, Attorney General and Deputy Prime Minister Lionel Bowen said that the amendment recommended by the Menzies report “was designed to ensure that any serious criminal activities committed in the course of World War II, the commission of which is established beyond a reasonable doubt, by persons who are now residents or citizens of Australia, will not go unpunished.”⁵⁴⁶ In January 1989, the Australian Parliament did just that, passing an amendment to the War Crimes Act that allowed for “persons accused of such war crimes be brought to trial in the ordinary criminal courts of Australia [and] be given a fair trial.”⁵⁴⁷

By the time this War Crimes Amendment passed, implementation of the first recommendation in the Menzies Report was already underway. Almost a year earlier, Parliament had appointed a well-known lawyer named Robert F. Greenwood to head a Special Investigations Unit (SIU), which would be tasked with investigating the allegations about specific Australian citizens and residents contained in the Menzies Report, as well as a list of thirteen names provided by a representative of the Simon Wiesenthal Center in Tel Aviv, Israel.⁵⁴⁸

Greenwood also began staffing the SIU. Thanks to its unique task—to investigate war crimes committed on another continent nearly four decades earlier—the SIU became a “unique professional body with an unusual collection of specialized skills.” At the outset, the SIU’s membership included two investigators from the Australian Federal Police force, three investigators from local police forces, two historians, a part-time investigator, and a translator to join the ranks of the SIU. At its peak in 1991, the SIU would consist of 52 professionals, ranging from historians to translators to lawyers. The SIU also came to employ several forensic experts, including archaeologists, anthropologists, doctors, and experts in skeletal remains and ballistics.⁵⁴⁹

The decision to use forensic experts and the evidence they produced came from concerns about how available other forms of evidence would be, and how they would play to an Australian jury. Anyone who was old enough to remember the crimes in question was necessarily elderly, raising concerns that they would either be unable to travel to Australia—or that defense attorneys could call their recollections into question. In addition, they worried that the geopolitical climate would predispose juries to mistrust witnesses or documentary evidence from the Soviet Union. As an SIU investigator explained, “this was still the tail end of the Cold War, and there was a lot of

⁵⁴⁵ War Crimes Act, 1945, pmb. (Austl.)

⁵⁴⁶ Hon. Lionel Bowen MP, War Crimes Amendment 1987, Second Reading Speech, 28 October 1987; see Australia, Attorney-General’s Department, and Special Investigations Unit, Report of the Investigations of War Criminals in Australia. 29-32

⁵⁴⁷ War Crimes Amendment Act, 1988, sect. 3 (Austl.)

⁵⁴⁸ Special Investigations Unit, *Report of the Investigations of War Criminals in Australia*, 20.

⁵⁴⁹ Special Investigations Unit, *Report of the Investigations of War Criminals in Australia*, 20.

distrust of anything coming out of the Soviet Union.” In order for the cases to stand up in front of a jury, the Australians needed to have independent evidence of these accused’s involvement. “So,” he said, “they came up with an idea that ‘sounded fantastical’: to send people in to the Soviet Union to exhume graves.”⁵⁵⁰

The exhumations began in the summer of 1990 with the Serniki grave, the largest the SIU would exhume. The following summer, Australian SIU investigators returned to exhume a smaller grave, one containing 140 bodies, in the town of Ustinovka; the third exhumation, of a grave containing approximately 100 bodies in the Ukrainian town of Gnivan, proceeded immediately afterwards. These three graves were chosen because, in each case, witnesses made very precise statements that could be verified by excavation. For example, eyewitnesses in the case involving the Ustinovka case stated that, after the Jewish adults were shot and arranged in the grave, the accused—a Ukrainian-born Australian citizen named Heinrich Wagner—demanded that the *mischlinge* children, children of mixed Jewish and non-Jewish parentage, be assembled near the grave that held their parents. Each small child was then thrown into the air, witnesses remembered, and shot “like clay pigeons.” As an SIU investigator recalled in an interview, this is precisely what they found when they opened the grave. The children, he said, “were laying higgledy piggledy.” Under the children there was a foot of partial filling, under which the adult bodies were found. The forensic facts, in this case, served to corroborate the witness testimony.⁵⁵¹

When they first visited Ukraine in the summer of 1990, the Australian forensic team anticipated that they would stay at the site for six weeks, sufficient time to “sample various areas of the grave site to obtain an estimate as to the number of victims,” as the anthropologist Wright testified in Polyukhovich’s trial.⁵⁵² To their dismay, upon their arrival Soviet officials insisted that the presence of a grave could be established in the span of a few days, and the foreign forensic team would be on their way. The Australians suspected the encouragement to use such speed was a product of the fact that, as Wright testified, “We were taking up a lot of their time.”⁵⁵³ But, with the support of the doctor leading the Soviet team, Wright told the court, “we stuck to our guns, and we stayed the time allotted.”⁵⁵⁴

As it was, six weeks would be barely enough time. The exhumation was only possible thanks to a backhoe, two bulldozers, and a detachment of Soviet soldiers to assist with the digging. The area was swept for unexploded metal devices, and then, just after 11 o’clock in the morning on the 16th of July, digging began. The young Soviet soldiers started with shovels, scooping loose, dry, sandy soil onto four-handled sleds that, once full, were carried between two of them into the forest and tipped over. Then they returned to the gravesite, and repeated the process. One of the goals of this preliminary digging was to determine the exact boundaries of the grave.

⁵⁵⁰ Special Investigation Unit investigator in conversation with the author, July 2013.

⁵⁵¹ Special Investigation Unit investigator in conversation with the author, July 2013.

⁵⁵² Testimony of David Hughes, Polyukhovich Committal Hearing, Transcript of Proceedings, November 12, 1990, 167.

⁵⁵³ Testimony of Richard Wright, Polyukhovich Committal Hearing, Transcript of Proceedings, November 12, 1990, 248.

⁵⁵⁴ Testimony of Richard Wright, Polyukhovich Committal Hearing, Transcript of Proceedings, November 12, 1990, 248-9.

Once a small hole dug on the presumed border reached about chest deep, Wright hopped into it, and, crouching low, smoothed the wall with his trowel. “This is the line that marks the boundary between disturbed and undisturbed ground,” he said, pointing to a distinct vertical line in the soil. In this pit a line dramatically demarked the undisturbed and disturbed soil, the first consisting of “layers of sand with some clay, and bands of orange iron which had been precipitated possibly since the last ice age.” When the grave was dug through the layers, however, and then refilled, “all the bands are broken up, so you get lumps of colored clay material in the filling of the hole,” creating a mottled appearance.⁵⁵⁵ He squinted into the sunlight. “So, this may be the boundary of the grave.”⁵⁵⁶

The mechanical diggers then started moving the topsoil, known as the overburden, from the surface of the grave. An Australian police detective sergeant named David Hughes, a crime scene expert from the New South Wales Police Department, filmed the scene with a handheld video camera as a dusty green backhoe started its engine and began to push the top layer of dirt from the grave.⁵⁵⁷ Although hardly delicate tools, bulldozers, and backhoes are often used to do much of the heaving lifting even in the most carefully archaeological of mass grave exhumations, operated by drivers skilled enough to carefully remove dirt without disturbing the bodies that lie below.⁵⁵⁸ By 5:30 pm, the Soviet soldiers, who had by this time largely jettisoned their uniform shirts, stood neck deep in the hole dug by the backhoe. As the soldiers worked to widen the pit, the Australian team took to their knees, brushing dirt away from the bones with trowels and their hands. Soon three craniums were visible on the surface.⁵⁵⁹

The next morning, the backhoe continued to lift dirt from the grave as Hughes’ video camera rolled on. Hughes, a seasoned member of the New South Wales police force, had traveled to Serniki with the SIU forensic team to oversee the collection, examination, and recording of any evidence found at the site. He was also tasked with both photographing and videotaping the exhumation.⁵⁶⁰ That afternoon, as the backhoe roared on in the background, Hughes’ camera captured the Australian team as they knelt in the grave, delicately digging by hand to uncover the human remains found the previous afternoon. One skeleton, a woman whose long, braided plaits were still intact, still held the bones of an infant in her arms, just as they had laid at the moment of their deaths.⁵⁶¹ This woman and child, along with the remains of a twelve or thirteen year old child, lay at a higher elevation in the grave than the rest of the skeletons, a fact that corroborated accounts eyewitnesses had provided to Australian investigators: after the killings and after the grave had been partly filled witnesses said that Polyukhovich and two policemen had taken a woman and two

⁵⁵⁵ Videorecording of Serniki Exhumation, in possession of the author; Testimony of David Hughes, Polyukhovich Committal Hearing, Transcript of Proceedings, November 12, 1990, 106; Testimony of Richard Wright, Polyukhovich Committal Hearing, Transcript of Proceedings, November 12, 1990, 218-220.

⁵⁵⁶ Videorecording of Serniki Exhumation, in possession of the author.

⁵⁵⁷ Videorecording of Serniki Exhumation, in possession of the author.

⁵⁵⁸ Wright, Hanson, and Sterenberg, “The Archaeology of Mass Graves,” 143.

⁵⁵⁹ Videorecording of Serniki Exhumation, in possession of the author.

⁵⁶⁰ Testimony of David Hughes, Polyukhovich Committal Hearing, Transcript of Proceeding, November 12, 1990, 103.

⁵⁶¹ Videorecording of Serniki Exhumation, in possession of the author.

children down a ramp into the grave. Nobody saw Polyukhovich shoot the three victims, but the witnesses said that only he and the policemen returned.⁵⁶²

Within a week, digging by the soldiers and machines created an enormous pit 37.5 meters long by 3.6 meters wide and three meters deep, very close to the size the local man who led the team into the woods upon their arrival in Serniki had remembered.⁵⁶³ The walls sloped outward at a 10-degree angle.⁵⁶⁴ The two long sides of the grave were very close to being parallel, with corners at almost right angles, looking “more like a designed rectangle rather than a casually dug hole.”⁵⁶⁵ By observing the same characteristics of disturbed and undisturbed soil that allowed them to find the boundaries of the grave itself, the team found an entry ramp “cut like a slice out of the eastern side of the grave.” The ramp was approximately a meter wide, and, sloping up to the forest floor, almost three meters in length, and steep, nearly 45 degrees.⁵⁶⁶ As he filmed the grave with his handheld camera, Hughes fixed the lens on the steep entrance ramp that cut into the wall of the grave. “As was aptly put by one of the soldiers, [that is the] gateway to hell.”⁵⁶⁷

On the 5th of July, the two teams finished removing soil from the final top layer skeletons. Hughes captured the dramatic effect of having the entire grave exposed: blackened skeletons covered the grave’s floor, an area fifty meters long by ten meters wide. In each end of the pit, the bodies lay more densely, pressed together, some still covered in soft tissue.⁵⁶⁸ Behind his camera, Hughes walked around the pit, slowly panning across the remains and filming them up close. Hughes, who had maintained a light and joking tone as he narrated behind the camera for the duration of the exhumation, was subdued. “The remaining flesh is decaying,” he said. “It’s been wet. It’s not a pleasant smell.” He walked further. “Row upon row of skulls and bones, rib cages, tibias. Rotting flesh.”⁵⁶⁹

With the bodies exposed, however, the forensic scientists could begin examining the skeletons for usable evidence. Initially, the Australian team’s forensic pathologist, a veteran of the Coroner’s office in New South Wales named Dr. Godfrey Oettle, planned to conduct full post-mortem exams on each set of remains. He built a work area on the side of the grave, complete with makeshift waist-high tables made of planks resting on saw horses. On top were piled a jumble of books, papers, cleaning implements and cameras. Burt Bailey, a forensic assistant who appeared on Hughes’ camera as a white-haired, bespectacled man in a blue painter’s jumpsuit, was tasked with cleaning, organizing, and reconstructing and gluing bone fragments back together. Once the first layer of bodies exposed, however, it quickly became clear that there were simply too many

⁵⁶² “War Crimes: the search for justice,” *The Advertiser*, May 9, 1993.

⁵⁶³ Testimony of David Hughes, Polyukhovich Committal Hearing, Transcript of Proceedings, November 12, 1990, 107, 184.

⁵⁶⁴ Testimony of Richard Wright, Polyukhovich Committal Hearing, Transcript of Proceedings, November 12, 1990, 221.

⁵⁶⁵ Testimony of Richard Wright, Polyukhovich Committal Hearing, Transcript of Proceedings, November 12, 1990, 222.

⁵⁶⁶ Testimony of Richard Wright, Polyukhovich Committal Hearing, Transcript of Proceedings, November 12, 1990, 223.

⁵⁶⁷ Videorecording of Serniki exhumation, in possession of the author.

⁵⁶⁸ Testimony of Richard Wright, Polyukhovich Committal Hearing, Transcript of Proceedings, November 12, 1990, 273.

⁵⁶⁹ Videorecording of Serniki exhumation, in possession of the author.

individuals in the grave to remove and examine full skeletons, and the team resorted to simply lifting each skull from the grave, determining age, sex, and cause of death.⁵⁷⁰

The team laid out white tape at one-meter intervals, dividing the grave into meter square sectors. These would make it easier for the scientists to take an accurate headcount. As Hughes' ever-present video camera rolled, members of the Australian and Soviet forensic teams lifted each skull on the top layer of bodies, before cleaning it and examining it to determine age, sex, and cause of death. Then, each skull was replaced.⁵⁷¹ They did not attempt to dig below this top layer of bodies, although it was obvious to Wright and Oettle that there were more bodies underneath. In particular, at the southern end of the grave, where the Australian team was working, it appeared that there were at least two layers of bodies, "victims lying on top of each other."⁵⁷² Wright would later testify that he believed there were more bodies "particularly at the southern end, [but] the density of bones, fat, and other soft tissues made it, in my opinion, too unpleasant to remove the bodies."⁵⁷³ In an interview years later, one of the Australian scientists recalled that the team was able to find enough of the required information for trial, such as age, sex, and cause of death, simply by analyzing the top layer of bodies. "It is not always necessary to exhume but it is often ruthlessly carried out when it needn't be."⁵⁷⁴

Oettle served as the team's expert in skeletal remains and was in charge of examining the skulls from that top layer, tasked with determining age, sex, and cause of death. Determining the cause of death was in many cases the easy task. In 53% of victims, Oettle found a bullet wound in the back of the head. The Germans' large 9mm rounds often shattered the skulls of the Serniki victims. Some showed large exit wounds, while in others "you would find that the face was missing because the entry wound was in the back of the head and with a high velocity bullet you get a disintegration of the lighter bone in the front of the face."⁵⁷⁵ Some of the remaining skulls showed shots in the side of the head, while others had "random" bullet wound patterns. Oettle also found many skulls that lacked any bullet wound at all, but instead showed a depression and fracturing consistent with rifle butt blows.⁵⁷⁶

To determine sex, he looked at certain genetic characteristics of the skulls, such as its thickness, the temporal lines, and the size and shape of the eye sockets. And finally, to estimate age at death, Oettle examined the wear found on the molars, and the extent to which sutures—seams between the many bones of the skull—had fused together.⁵⁷⁷ This information was carefully recorded, and, under the watchful eye of Hughes' video camera, each skull was placed back with the rib cage and spinal column of its rightful owner. The final number of victims the team counted—

⁵⁷⁰ Testimony of David Hughes, Polyukhovich Committal Hearing, Transcript of Proceedings, November 12, 1990, 168.

⁵⁷¹ Testimony of David Hughes, Polyukhovich Committal Hearing, Transcript of Proceedings, November 12, 1990, 171.

⁵⁷² Testimony of David Hughes, Polyukhovich Committal Hearing, Transcript of Proceedings, November 12, 1990, 108.

⁵⁷³ Testimony of Richard Wright, Polyukhovich Committal Hearing, Transcript of Proceedings, November 12, 1990, 246.

⁵⁷⁴ Special Investigations Unit investigator in conversation with the author, July 2013.

⁵⁷⁵ Testimony of Richard Wright, Polyukhovich Committal Hearing, Transcript of Proceedings, November 12, 1990, 274.

⁵⁷⁶ Testimony of Richard Wright, Polyukhovich Committal Hearing, Transcript of Proceedings, November 12, 1990, 274; Bevan, *A Case to Answer*, 57.

⁵⁷⁷ Testimony of Richard Wright, Polyukhovich Committal Hearing, Transcript of Proceedings, November 12, 1990, 264.

just the ones whose skulls they could access, definitely not every body in the grave—was 533, more than four hundred of them female.

The bodies weren't the only pieces of physical evidence in the grave. Ballistic evidence—cartridge casings and bullets—was scattered throughout the grave. Hughes took photographs of each sand-encrusted, blobby object they found; rusted to shades of orange, if they were above the bodies, and green, if they were below the bodies, saturated with bodily fluid. “At first we didn't realize that we were looking at cartridge cases,” Professor Wright recalled in his later court testimony, “because the interaction between the metal and the sand had caused a dense crust around [them] and [they] looked like a lump of natural iron stone of the sort [...] that was in the natural soil. Some of them however were suspiciously heavy, and when we opened them we realized that we were finding cartridge cases and bullets.”⁵⁷⁸ The dirt-encrusted ballistic evidence was taken to the “radiology department,” Hughes joked as he narrated behind the video camera, a metal x-ray device the size of a shoebox that sat on the dry grass under a tree. X-rays taken with this contraption allowed Dr. Oettle to identify the caliber and make of the ammunition. The large hunks, crusted with sand and rust to about the size of a human thumb, were 7.62-millimeter rounds from a carbine, a weapon similar to a rifle, and the smaller lumps, the size of a pinky finger, were bullets and cartridge cases from 9-millimeter ammunition.⁵⁷⁹

Subsequent cleaning crumbled some of the samples. The ones that survived, though, provided the investigators with useful evidence for Polyukhovich's trial: they bore engravings that indicated their caliber, the year they were made, and the name of the manufacturer.⁵⁸⁰ This ballistic evidence offered clues about who fired the shots into the graves. The 9-millimeter rounds were German-made Parabellum ammunition, standard-issue ammunition to German forces during the Second World War. The carbine rounds were 7.62 caliber and Soviet-made; ballistics experts from Britain and Australia would testify in court that these rounds were the ammunition most commonly issued to local militias in the Ukraine during the Second World War.⁵⁸¹

The bullets and casings that survived cleaning were also useful in helping to date the grave. All of the casings the team found were dated between 1938 and 1941, which meant that 1941 was the earliest possible date of execution. To determine more precisely the age of the grave, the SIU investigators relied, in part, on dendrochronology, the use of tree rings to determine age. As at Katyn, evidence from trees planted on top of the grave gave investigators invaluable clues to how old the graves must have been. Professor Wright analyzed cross-sections of pine trees from the top of the Serniki grave and concluded that they were no less than 30 years old.⁵⁸² This, combined with the date stamps on the bullets, placed the date of execution between 1941 and 1960.

Wright, the forensic anthropologist from the University of Sydney, also collected hair for a third method of determining the age of the grave: radiocarbon dating. He cut still-extant braids from

⁵⁷⁸ Testimony of Richard Wright, Polyukhovich Committal Hearing, Transcript of Proceedings, November 12, 1990, 231.

⁵⁷⁹ Videorecording of Serniki exhumation, in possession of the author.

⁵⁸⁰ Testimony of David Hughes, Polyukhovich Committal Hearing, Transcript of Proceedings, November 12, 1990, 128.

⁵⁸¹ Testimony of David Hughes, Polyukhovich Committal Hearing, Transcript of Proceedings, November 12, 1990, 126; Videorecording of Serniki exhumation, in possession of the author.

⁵⁸² Testimony of Richard Wright, Polyukhovich Committal Hearing, Transcript of Proceedings, November 12, 1990, 232-234.

the remains of two skeletons. One set went to a private lab in Florida, and the other to the Radiocarbon Dating Research Unit at the Australian National University in Canberra. Radiocarbon dating can be used on recent human remains to show whether the victim lived after 1955, when atmospheric radiocarbon levels began to skyrocket thanks to aboveground nuclear weapons testing. This, Professor Wright quipped, “[is] perhaps the only advantage of letting off hydrogen bombs.”⁵⁸³ Reports from both radiocarbon-dating labs concurred: the braids removed from the skulls by Professor Wright came from individuals who died before 1955. As far as forensic science could determine, the victims were executed between 1941 and 1955—a window consistent with witnesses claims that the grave was created in 1942, during the German occupation of Serniki.

MEANWHILE, PREPARATIONS FOR Polyukhovich’s trial continued in Australia. He had been arrested six months earlier, on January 26, 1990. The charges against him stated, “between the first day of September 1942 and about the thirtieth day of September 1942 near the village of Serniki in the Rovno District in the Ukraine, Europe, [Polyukhovich] was knowingly concerned in the murder of eight hundred and fifty persons, whose names are not known but who are described as the Jews from the Serniki Ghetto, such killings being willful killings, and did thereby commit a war crime contrary to Section 9 of the War Crimes Act of 1945.”⁵⁸⁴

The first step of Polyukhovich’s legal proceedings were the same as they would be for any criminal: under the Australian legal system, any case involving a serious crime, such as murder or rape, goes first before a magistrate in a preliminary examination, known as a committal hearing. Much like a grand jury proceeding in the United States, Australian committal hearings require the prosecutor to convince the magistrate that a case against the defendant is strong enough to justify a jury trial. The evidence presented by the Prosecution is held to a high standard of proof: Australian law stipulates that “evidence will be regarded as sufficient to put the defendant on trial for an offence if, in the opinion of the Court, the evidence, if accepted, would prove every element of the offence.”⁵⁸⁵ Proceedings against him were scheduled to begin that summer, but Polyukhovich’s suicide attempt in July delayed their start. The elderly man spent three months recuperating in the hospital, and then a year under medical supervision that advised against a trial out of concern for his health.⁵⁸⁶ On October 28, 1991, almost fifteen months to the day after his suicide attempt, Polyukhovich’s committal trial finally opened.

In presenting its case at the committal hearing, the Crown Prosecution called several witnesses to speak to both the historical and the forensic aspects of the case. Wright, Oettle, and Hughes all testified, respectively walking the courtroom through the exhumation, the examination of the skeletal remains, and the care taken with the physical evidence once it was removed from the grave. The historians-turned-expert witnesses provided context for the famed Austrian-born historian Raul Hilberg—author of the seminal 1961 work *The Destruction of European Jews*, a book Hannah Arendt called “the first clear description of [the] incredibly complicated machinery of

⁵⁸³ Testimony of Richard Wright, Polyukhovich Committal Hearing, Transcript of Proceedings, November 12, 1990, 239

⁵⁸⁴ Information for an Indictable Offense, pursuant to the *Justices Act 1921*, 26 January 1989, Robert William Reid, informant; see also Fraser, *Daviborsch's Cart*, 5.

⁵⁸⁵ See Summary Procedure Act, 1921, sect. 104-106. (Austl.)

⁵⁸⁶ “Fading Memories after 50 Years Hurt the Prosecution,” *The Australian*, May 19, 1993.

destruction” under the Nazis⁵⁸⁷—submitted a written historical overview of the German occupation of the area around Serniki. Hilberg’s history also discussed the role of local Nazi collaborators in Ukraine, specifically the role of the forest wardens like Polyukhovich. The Crown also submitted authenticated copies of archival documents, provided to them by archivists in West Germany, as well as from archives in countries like Czechoslovakia, Russia, Belarus, and Ukraine—no small feat in 1991, when the Soviet Union was collapsing.

Establishing the historical context was critical to the Crown’s case because the amendment to the War Crimes Act only applied to a very particular kind of crime committed in Europe during the Second World War: *war* crimes. Crimes such as murder, although it was considered a “serious crime” under Australian law, only become war crimes under the Amendment when committed “in pursuing a policy associated with the conduct of a war or with an occupation; or on behalf of, or in the interests of, a power conducting a war or engaged in an occupation.”⁵⁸⁸ Thus, in order for any murders Polyukhovich may have committed in the Ukraine in 1943 to be subject to Australian jurisdiction, the Prosecution needed to argue that Polyukhovich acted as a result of the occupation and in pursuit of Nazi policies. Moreover, because the occupying German forces had made it illegal in late 1941 for locals to kill Jews without authorization, the prosecution needed to prove not only that Polyukhovich had participated in the killing of the Jews of Serniki, but also that he had done so on German orders. If he had killed Jews on his own volition, he might be liable in the Ukraine for the murders, but would not be in Australia.

The committal hearing lasted from late October 1991 until June 5, 1992, when the Magistrate Kevin Prescott delivered his decision. Despite the wealth of forensic evidence the Crown prosecution was able to marshal—and the time, money, and effort expended to get it—in the end it failed to satisfy Prescott that the case met the necessary standard of proof. Polyukhovich was found to have “a case to answer” in two of what were originally nine original counts of war crimes.⁵⁸⁹ Prescott dismissed the other seven counts, including the charge relating to the mass killing of Serniki’s Jews and the mass grave exhumed by the SIU forensic team, due to lack of evidence.⁵⁹⁰ Despite the evidence taken from the pit in Serniki, Prescott’s ruling reduced a case that had originally involved nearly nine hundred deaths to just six individual killings.

That afternoon, as they recovered from shock, the Crown prosecutors decided to take the forensic evidence to Australia’s Supreme Court,⁵⁹¹ and just before Christmas in 1992, Judge Brian Cox made his decision. Because the testimony of Fyodor Polyukhovich and the forensic evidence from the grave appeared to line up, Judge Cox ruled that the charge involving the mass grave would go before a jury. The comparatively short trial began on March 18, 1993. Three months later, after only an hour of deliberation, a jury of nine men and three women found Polyukhovich not guilty of all charges. The Canberra newspaper *The Australian* reported that Polyukhovich reddened, and began to cry. His lawyers, Lindy Powell and Michael David, ushered Polyukhovich and his wife out of the

⁵⁸⁷ Arendt, *Eichmann in Jerusalem*, 71.

⁵⁸⁸ War Crimes Amendment Act, 1989, sect. 7. (Austl.)

⁵⁸⁹ Bevan, *A Case to Answer*, 180.

⁵⁹⁰ War Crimes: The search for justice,” *The Advertiser*, May 19, 1993.

⁵⁹¹ Bevan, *A Case to Answer*, 183.

courtroom and into a red Mitsubishi Lancer that whisked them away from the court. “One of Australia’s most monumental legal exercises,” *The Australian* wrote, “ended with a whimper.”⁵⁹²

The other two war crimes cases taken on by the Australians, both of which also involved forensic investigations of mass graves in Ukraine, were similarly dissatisfying. Just as Polyukhovich’s trial was starting, an Adelaide magistrate dismissed the charges against Mikolay Berezowsky, the second man charged under the War Crimes Amendment Act. In Berezowsky’s case, forensic evidence had confirmed the statements of witnesses in dramatic fashion, but the case had fallen apart in part because witnesses had refused to travel to Australia to identify him.⁵⁹³ In December 1993, charges were dropped against the third and final defendant, 70 year-old Heinrich Wagner. Professor Wright found that the children were lying on top of the adults in the grave, as he said in court, “in all directions,” just as an eyewitness said they would be. Yet in this case, as in Polyukhovich’s, the problem was one that continues to challenge forensic evidence in prosecutions of large-scale crimes: that it does not—perhaps cannot—provide sufficient linkage evidence. As historian David Fraser observes, “the story of science confirms the eyewitness accounts of the pit shootings [...]. None of these findings puts [the defendant] at the pit, with a pistol or with a rifle.”⁵⁹⁴

In his scholarly work, Professor Wright has written that exhuming graves is important for evidentiary, humanitarian, and historical reasons. Recovering bodies in his estimation is recovering history, because “bodies present a danger to those who would revise the past.”⁵⁹⁵ When the exhumation uncovered 553 bodies, most of them women and children with bullet wounds and rifle butt blows to the head, a traditional hairpiece worn by a rabbi, and Polish coins and German bullet casings dating to the late 1930s and early 1940s, it became much more difficult to deny that something terrible had happened to the Jews of Serniki during the years of the German occupation of the western Soviet Union. “Of course historical scholarship and memories are critical,” Wright writes, “but the powerful evidence of the bodies themselves, especially in conjunction with documentary evidence and witness memory, is difficult to contest. If bodies with gunshots are there in the ground, then somebody shot them. The bodies demand an explanation.”⁵⁹⁶

* * *

FOR PROFESSOR WRIGHT and some of other Australian forensic investigators, the Serniki and Gnivan graves were not the only graves they would come across who demanded explanations. The SIU was officially disbanded in early 1993. But just as the Australians were wrapping up their work, investigations into another conflict was gaining steam on the European continent; one that would uncannily evoke images of Nazi racial polices and inspire more comparisons to the Holocaust than any other conflict in the twentieth century. The crimes that were committed in the states of the

⁵⁹² “Into the Sunshine of Freedom,” *The Advertiser*, May 19, 1993.

⁵⁹³ Special Investigations Unit investigator in conversation with the author, July 2013.

⁵⁹⁴ Fraser, Daviborshch’s Cart, 240. The forensic evidence was made irrelevant when he was deemed to ill to stand trial. The ending of Wagner’s trial remains a sore spot in Australia; in 1999 an ABC journalist visited his home and found him gardening, carrying bags of groceries, and doing chores. See, e.g. Max Uechtrit, “US Report says Australia a war criminal’s haven,” *20/20*, June 12, 1999.

⁵⁹⁵ Richard Wright, “Where are the bodies? In the Ground,” 103.

⁵⁹⁶ Richard Wright, “Where are the bodies? In the Ground,” 103.

former Yugoslavia would occupy much of the international forensic community's energy for the next two decades and beyond.

At that time, the Yugoslav tribunal was just beginning to build an internal forensic investigation division. The Australians, with their recent experience exhuming graves of mass violence, were well placed to move to other graves in Europe. Some also felt a stinging disappointment at the outcome of Australia's war crimes cases, and saw the ICTY as an opportunity to pursue similar work in an environment where it might be better received. But the work they did for the SIU in 1990 and 1991 remained a point of pride. Wright, in an interview on the eve of his fifth time testifying before the ICTY as an expert witness in July 2013, wanted only to talk about the Serniki exhumation and how forensic evidence had helped to write the definitive history of the Holocaust in a small town in the Ukraine.⁵⁹⁷ The work done by the Australian Special Investigations Unit, however, had implications far beyond the Holocaust.

In particular, the Australians' work raised questions that would remain salient for the ICTY and other tribunals about the purposes of forensic investigation: what kinds of information graves can provide; how, why, and by whom they should be opened; and once they are, the legal and moral responsibilities they engender. From a practical perspective, the Australian exhumations sought to supplement and corroborate other types of evidence, such as documents and witness testimony, just as they would at the ICTY and ICTR. In this sense, they were a natural extension of the Commonwealth's system for prosecuting domestic violent crimes: in a single murder case scientists like Professor Wright would be employed to find and examine the body of the victim; in a case involving hundreds of murders, then, sending scientists to find the bodies was a natural move. Yet the position of Wright and the Australian team—that “it is not always necessary to [fully exhume a grave] but it is often ruthlessly carried out when it needn't be”—also pointed toward a philosophical question that would become a point of tension within the forensic community during later, court-directed exhumations: once a grave is opened to produce evidence for an international criminal prosecution, what moral responsibilities does the tribunal have to the bodies it contains? Court investigators may have needed only certain kinds of information from the grave in order to prove their charges, as the Australian investigator's words implied: the number of victims, their genders and approximate ages, and their cause of death. Identifying individual bodies, returning remains to families, or reburial according to cultural norms are often clearly outside the evidentiary needs of a court. The question of whether or not those further steps with the bodies were outside their moral imperative, however, became a point of debate on the forensic teams that exhumed graves in Rwanda; in Bosnia, tensions spilled over, for a time pitting family and survivor groups against the ICTY, and ultimately creating a schism within the forensic community between humanitarian and family-focused scientists, and those focused on legal justice and accountability.

⁵⁹⁷ Special Investigations Unit investigator in conversation with the author, July 2013.

CHAPTER 7

Croatia and Rwanda, 1992-1995



IN OCTOBER 1992, Clyde Snow arrived in Zagreb, Croatia, to meet with a United Nations war crimes commission tasked with investigating rumors of atrocities in the eastern part of the country. Snow traveled to Zagreb with the intention of locating possible graves in Croatia, which had seen bitter violence after the invasion of Serbian troops eleven months earlier. Once he arrived, though, the assembled group of investigators, representatives of human rights groups, and diplomats struck Snow as a lot of talk, and not much action. Very quickly, the anthropologist wrote in an article three years later, he got bored. “I’ve been here for four days now,” Snow told the UN Commission’s administrative chief, “and I can guarantee you that there aren’t any mass graves in this hotel. I’ve checked it out and it’s clean.”⁵⁹⁸

In 1992, in response to the reports filtering out of the Balkan region about ethnically-motivated atrocities, the United Nations established a Commission of Experts, a group that had a

⁵⁹⁸ Snow, “Murder Most Foul,” 16-20.

mandate to enter Serb territory to investigate reported crimes. It was under the auspices of this Commission of Experts that Snow had come to Zagreb. When the Commission finally let Snow leave the Croatian capitol the following day—“perhaps,” the anthropologist wrote later, “to rid itself of a thorn in its side”—he traveled east from the Croatian capitol to the Serbian border, seeking out evidence of a reported event that stood out for its brutality and horror even from the nearly year-long, bloody conflict: the suspected massacre of more than 200 patients and staff members from the Vukovar Medical Center, a hospital near Croatia’s border with Serbia. Snow, along with Jack Geiger, President of Physicians for Human Rights, met with the Dean of the Medical Faculty at the University of Zagreb. The Dean, Dr. Ivica Kostovic, These doctors, nurses, and injured and sick patients had disappeared from the Red Cross-supported hospital in November 1991.⁵⁹⁹ Many people suspected that the missing people from Vukovar would not be located in a prison camp, but in a mass grave.

The belief that the missing from Vukovar were more likely to be found through forensic means than diplomatic ones was bolstered by the story of a man who claimed to be an eyewitness to the massacre. After the meeting at the medical school, Dr. Kostovic put Snow in touch with a Croatian officer who said he knew what happened to the hospital staff and patients because he had only narrowly escaped sharing their fate.⁶⁰⁰ They had been shot, the officer said, and he knew where their bodies were buried. The officer feared that knowing this information put his life in danger from Serb forces still in the Croatian capitol, and it had taken a few “cloak-and-daggerish telephone calls” for Snow to convince the man to meet. The officer, known in ICTY documents as “Witness B,” finally agreed to the meeting, and came to the anthropologist’s hotel room in Zagreb around 6pm on October 15.⁶⁰¹ Witness B told Snow that he had personally witnessed the massacre of medical workers and patients from the Medical Center. If true, such an act would be a serious international offense: the murder of patients and medical personnel has been considered a war crime since 1864, when representatives of several European states congregated in Geneva, Switzerland, and signed the Geneva Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field.⁶⁰²

The Croat officer told Snow that he had been lightly wounded fighting the Serbs. He went to the hospital as much for a refuge as for treatment: he had heard the Serbs were planning to allow the Red Cross to transport the prisoners out of the conflict zone.⁶⁰³ Witness B told Snow that he quickly came to regret his decision to go to the hospital. This was November 1991, and shortly after he arrived, Serb soldiers did too. The Serbs loaded all of the men—doctors and patients alike, some badly injured—onto trucks, and drove them into the forest. He told Snow he could guess easily enough what was happening. Taking advantage of his minor injury, and his lucky position at the back of the truck, Witness B jumped over the tailgate, and started running as soon as he hit the

⁵⁹⁹ *The Prosecutor v. Mrkšić et al.* (Trial transcript), March 28, 1996, International Criminal Tribunal for the former Yugoslavia, 449.

⁶⁰⁰ Stover and Peress, *Graves*, 102.

⁶⁰¹ *The Prosecutor v. Mrkšić et al.* (Trial transcript), March 28, 1996, International Criminal Tribunal for the former Yugoslavia, 449.

⁶⁰² “Convention for the Amelioration of the Condition of the Wounded in Armies in the Field,” August 22, 1864, International Committees of the Red Cross.

⁶⁰³ Snow, “Murder Most Foul,” 16-20.

ground. Five or six gunshots followed him, but the truck didn't stop. He never heard from the other men from the hospital again.⁶⁰⁴ Four years later, Snow told the courtroom at the International Criminal Tribunal for the former Yugoslavia that he listened carefully, "trying to evaluate the witness." Though he was not a professional interrogator, Snow said to the court, "he struck me as a pretty straightforward young man, who was telling a straightforward story." Unlike other, less reliable witnesses the anthropologist had encountered in his work, one thing in particular struck the anthropologist as worthy of his trust: Witness B did not focus on the lurid details of his story; and instead tried to piece together the facts.⁶⁰⁵ Snow decided to take him seriously.

The most important fact to determine was the grave's location. Witness B told the anthropologist that Serb paramilitary soldiers held him and the other men from the Vukovar Hospital in a hangar near Ovčara, where they were badly beaten. When darkness fell, the men were loaded onto a truck in groups of about twenty. The same truck returned about every half hour; the execution site, they figured, could not be more than a ten or fifteen minute drive—on bumpy, slow back roads—from the hangar. This narrowed the area considerably.⁶⁰⁶ In Snow's hotel room in Zagreb, the anthropologist and the officer scoured maps of immediate region around the hangar together, looking for landmarks that matched the area where Witness B remembered jumping from the truck. The Croat pointed to a spot on one of the maps, where a wooded ravine met cleared agricultural land. Snow circled the location with his pen. The location seemed promising, Snow wrote later. "If I were going to make a mass grave, that's where I'd put it." The rest of the surrounding area was covered by farmland, and "no good farmer is going to let anybody put a mass grave smack dab in the middle of a good cornfield."⁶⁰⁷

Snow took a UN helicopter to the city of Vukovar, in the extreme east of Croatia, almost on the Serbian border. From there, the forensic anthropologist and his entourage—two Belgian UN Protection Force officers, a UN civil-affairs officer, and Larry Moore, an enormous Staff Sergeant in the Royal Canadian Mounted Police with a voice that, as Snow would write, "could carry from the Yukon to Calgary"⁶⁰⁸—piled into jeeps and drove out to the wooded ravine Snow had marked on the map. The circle indicated a spot just south of the city, on the edge of a property known as the Ovčara Farm. They abandoned their vehicles at the side of the road, got out quietly, and headed up the muddy road on foot. Near the head of the ravine, Sergeant Moore called out, and Snow hurried over to where the policeman was pointing. When Snow caught up to him, he immediately recognized the spot as a "non-functional aspect of the landscape"—archaeologist-speak for "something that should not be there," as Snow testified in the ICTY courtroom in 1996, something "not natural." Scrubby weeds covered the ground, in marked contrast to the larger bushes and trees

⁶⁰⁴ Snow, "Murder Most Foul," 16-20.

⁶⁰⁵ *The Prosecutor v. Mrkšić et al.* (Trial transcript), March 28, 1996, International Criminal Tribunal for the former Yugoslavia, 453.

⁶⁰⁶ *The Prosecutor v. Mrkšić et al.* (Trial transcript), March 28, 1996, International Criminal Tribunal for the former Yugoslavia, 450.

⁶⁰⁷ Snow, "Murder Most Foul," 16-20; see also Snow's explanation in *The Prosecutor v. Mrkšić et al.* (Trial transcript), March 28, 1996, International Criminal Tribunal for the former Yugoslavia, 454.

⁶⁰⁸ Snow, "Murder Most Foul," 16-20.

in the surrounding area.⁶⁰⁹ A human skull was lying face up in the mud, his jaw dropped open in the expression so familiar to those who work with the dead, like it was “screaming at the sky.”⁶¹⁰

A bullet hole in the back of the skull left little mystery as to the cause of death. Nearby, two partially exposed skeletons lay in the mud, surrounded by bullet cartridges of a caliber consistent with the Serb-issued 762-millimeter Red Star, a prototype of the Russian AK-47. Then, Snow found the imprint of what appeared to be a large grave: a depression in the ground, of a size and shape that didn’t look natural—a telling indicator of the sinking that often occurs over a grave.⁶¹¹ The dirt on the surface of the grave was disturbed, apparently scooped out and pushed back in by heavy machinery in the not-too-distant past. Based on its size, Snow concluded that the grave could hold upwards of 200 bodies—approximately the number missing from the Vukovar Medical Center. Trees riddled with bullet holes surrounded the area.⁶¹² There were also, as Snow would testify years later, certain “olfactory signs” that suggested they were in the presence of a grave. “There is an odor of decomposition very commonly associated with these places and that was certainly apparent there, that something had been, some sort of animals, had been buried in this grave.” He went on, “From what we could see from the surface—human skeletons—the bodies that were buried there would have to be human.”⁶¹³

Snow, Sergeant Moore, and their UN escort were afraid to linger at the gravesite. Local men arrived in a tractor, and began cutting down trees nearby. Too much attention to the area on the part of the UN team might cause some suspicion, and lead the locals to report the encounter to Serb authorities; the authorities, in turn, might destroy the site or throw the bodies it contained into the Danube River, whose mighty waters ran less than a mile away. Less than fifteen minutes after they arrived, the team was back in their white UN trucks, driving away.⁶¹⁴ But Snow was convinced that they had found the missing doctors and patients from the Vukovar hospital. He flew back to the States to put together a forensic team.⁶¹⁵

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POLITICAL SCIENTIST VICTOR Peskin has called the last decade of the twentieth century “a golden age in international human rights.”⁶¹⁶ In purely legal terms, Peskin may be right. The mid-1990s brought with them a sea change in both the means and the desired ends of the international human rights project. Where the 1980s—and even the early 1990s, with the Australian war crimes trials—had been characterized by advocacy and exposé, the involvement of international nongovernmental

⁶⁰⁹ *The Prosecutor v. Mrkšić et al.* (Trial transcript), March 28, 1996, International Criminal Tribunal for the former Yugoslavia, 449.

⁶¹⁰ Stover and Peress, *The Graves*, 109.

⁶¹¹ Testimony of Davor Strinovic, *The Prosecutor v. Mrkšić et al.* (Trial transcript), May 23, 2006, International Criminal Tribunal for the former Yugoslavia, 9438.

⁶¹² Clyde Snow, “Murder Most Foul,” 16-20; Stover and Peress, *The Graves*, 110.

⁶¹³ *The Prosecutor v. Docmanovic.* (Trial transcript), March 18, 1998, International Criminal Tribunal for the former Yugoslavia, 1544-1545.

⁶¹⁴ *The Prosecutor v. Mrkšić et al.* (Trial transcript), March 28, 1996, International Criminal Tribunal for the former Yugoslavia, 458-459.

⁶¹⁵ Stover and Peress, *The Graves*, 109.

⁶¹⁶ Peskin, “Virtual Trials.”

organizations, and some national trials, the 1990s brought with them a turn toward solutions within international law: prosecutions and trials. The United Nations moved to establish the first international criminal tribunals since the Nuremberg trial that followed the Second World War. These courts, known in shorthand as the UN's *ad hoc* tribunals, were formed in response to two prolonged acts of violence and conflict: ethnic violence in the former Yugoslavia during and after that country's breakup, and the Rwandan Genocide. The establishment of the UN's Commission of Experts for Yugoslavia had, at its core, an assumption that the crimes were heinous enough to supersede national sovereignty and deserved—even required—the attention of the international community. Now, it was not nongovernmental organizations that crossed borders to investigate crimes, bringing forensic scientists with them; this border-crossing investigative work was now sanctioned and commissioned by the intergovernmental community, as represented by the United Nations.

The United Nations established both courts—the International Criminal Tribunal for the former Yugoslavia (ICTY) and for Rwanda (ICTR)—by invoking Chapter VII powers from its Charter, which give it the power to respond to threats to international peace and security. The Security Council voted to create the ICTY in May 1993; the ICTR was formed eighteen months later, in November 1994. As they established the first international war crimes tribunals since Nuremberg, United Nations officials consciously harkened back to the half-century old predecessor to create both historical and moral precedent for the *ad hoc* tribunals for Yugoslavia and Rwanda. On the eve of the ICTY's founding, US Secretary of State Madeleine Albright proclaimed that the tribunal's very existence reaffirmed the international lessons that came out of the Second World War. "We have preserved the long-neglected compact made by the community of civilized nations 48 years ago in San Francisco," she said, referring to the meeting that drew up the United Nations' charter.⁶¹⁷ The tribunal's existence, in this formulation, had both historical and moral significance, connecting it both to the post-Holocaust period and to the rise of a global human rights movement.⁶¹⁸

The development of forensic science tracked with the movement in the greater human rights project toward international legal solutions in the early 1990s from the largely humanitarian advocacy impulses of the 1980s. The six years between Snow and Stover's first trip to Argentina in 1984 and the establishment of the UN Commission of Experts, the precursor to the International Criminal Tribunal for the former Yugoslavia, had been a critical growing phase for forensic science and its incorporation into human rights investigations. The mass graves Snow and the EAAF exhumed across Argentina, as well as the identification of Mengele in Brazil, not only offered new opportunities for forensic scientists to develop techniques and methodologies that allowed them to work on large graves—through trial and sometimes error, as in Chile—but they also demonstrated

⁶¹⁷ "Provisional Verbatim Record of the Three-Thousand One-Hundred and Seventy-Fifth Meeting of the Security Council, 22 February 1993, S/PV. 3175," reprinted in Mettraux, "Judicial Inheritance: The Value and Significance of the Nuremberg Trial to Contemporary War Crimes Tribunals," 604.

⁶¹⁸ Various scholars have explored the founding of the ICTY and the *ad hoc* tribunals of the 1990s in connection with Nuremberg or a longer history of humanitarianism or human rights work. See Neier, *War Crimes*; Roth, "Introduction"; Power, *A Problem from Hell*. For a personal reflection in the same vein by South African judge and former ICTY Chief Prosecutor, see Goldstone, *For Humanity*. For an exploration in the context of international humanitarian law, see Robertson, *Crimes Against Humanity*; Jones, *Toward A Just World*.

to the global public, to governments, and to lawyers and diplomats that exhuming mass graves was a powerful tool for exposing, documenting, and prosecuting war criminals and violators of human rights. In these years, the mass graves and the bones they contained took on a progression of roles within the growing human rights movement: from exposers in Argentina to documenters in Iraqi Kurdistan to a valuable form of evidence in international war crimes tribunals.

That lawyers and policy makers around the world would, at the end of the Cold War, draw connections between their world and post-World War II “rights talk” makes both policy sense and public relations sense, because both were moments of triumph for what was conceived of as western values—and in large part, the triumph of American values. Yet some scholars have been skeptical, drawing a brighter line between Nuremberg and the international tribunals of the 1990s and, more importantly to the current story, complicating the relationship between the international tribunals and the broader human rights movement. International legal scholar Guénaél Mettraux has written that the critical principal that was upheld in connecting the tribunals of the 1990s to those of the 1940s was not so much one of an international concern for human rights, but a moral distinction between “us” and “them,” suggesting that the establishment of international criminal tribunals in the 1990s can be seen as a form of American legal and moral imperialism.⁶¹⁹ Others, often from policy circles, critique such tribunals from another angle, arguing that they were detrimental to the peace process—adding an element of blame and moral fault that discouraged conflict resolution and post-conflict reconciliation. The first line of critique makes the connection between Nuremberg and the ad hoc tribunals of the 1990s easier in some ways: cynically both can be seen as mechanisms for spreading American values in the wake of a western victory. More broadly, the ad hoc tribunals were in many ways “fig leaves,” covering inaction on the part of the international community during the conflicts and atrocities they sought to investigate and prosecute. These lines of critique complicate the picture of precisely where and how the international criminal tribunals fit into the history of human rights, and how the advocacy and activism of the 1980s fits with the turn toward investigation, prosecution, and legal solutions in the 1990s.

That is not to say, though, that the international criminal tribunals were not part of the global human rights movement or of its development. They were. The introduction of legal processes to try violators of human rights norms and to develop an international legal standard for those norms came from a similar impulse to the one that had brought non-governmental organizations and forensic investigators to Latin America in the 1980s: that some crimes called for or required outsiders to investigate and expose. Even so, the transition to tribunals from the human rights activism and advocacy of the past was not entirely smooth, because it required blending humanitarian impulses with legal ones.

The picture was complicated by the fact that the ICTR and ICTY held mandate not only to prosecute war crimes and crimes against humanity—crimes taken up at the Nuremberg Tribunal as well—but also the crime of genocide. The 1948 Convention defines genocide as specific “acts committed with intent to destroy, in whole or in part, a national, ethnical, racial or religious group,

⁶¹⁹ Mettraux, “Judicial Inheritance: The Value and Significance of the Nuremberg Trial to Contemporary War Crimes Tribunals,” 604. See also Parenti, *To Kill a Nation*.

as such.”⁶²⁰ The task of prosecuting genocide is harder than of prosecuting other crimes, because there is a mental element: the crime of genocide requires not only the destruction of a group, but the *intent* to destroy the group. The *ad hoc* tribunals for the former Yugoslavia and Rwanda were the first international tribunals to pursue the charge of genocide. When they began their work, then, the evidentiary requirements of the crime were as yet untested in international courtrooms. Prosecutors and investigators for both tribunals incorporated forensic investigative methods from the outset, hoping to supplement witness testimony and the relatively limited documentary evidence they were able to find in either case to support the additional evidentiary burden the crime carries. In exhuming victims’ bodies, investigators could gather material evidence that might point to their shared identities—ethnic, racial, national, or religious—and use that information to build a case for genocide.⁶²¹ Yet these legal and evidentiary reasons to open graves represented a shift from the broader, humanitarian and family-focused documentary reasons. And in some cases, these differing motivations for opening the graves bred conflicts over methods.⁶²²

The forensic science community found itself torn along these lines. Clyde Snow and many of the forensic experts he had trained and then worked with in Latin America traveled first to Croatia, in 1992, and then to Rwanda and Bosnia in 1995 and 1996, to assist with exhumations commissioned by international tribunals. They quickly found that these exhumations bore little resemblance to the ones they were used to performing. Their past experience with exhumations, in particular those done in Argentina and Guatemala, had been deeply connected to the families and to survivor communities—with family members often crowded around the graves to observe the scientists’ work—and were performed slowly and carefully, taking as much time as was needed to complete their work. The scientists explained their presence and then asked for permission from the communities affected by violence before beginning their work: “we didn’t need permission, since we had a court order,” Eric Stover recalled years later about the early exhumations done by forensic teams in Mayan villages in Guatemala, “but we always asked for their permission.”⁶²³ The priority international criminal tribunals, in contrast, often privileged the evidentiary requirements of their cases over the needs of the families of the missing and the dead. With different ends in mind, some within the forensic community clashed with the tribunals they contracted with over the means, leading to an external rift between scientists and lawyers, as well as internal conflicts within the forensic community.⁶²⁴

Unlike previous forensic forays into human rights work, in Rwanda and the former Yugoslavia the high-level control over the exhumations was taken out of the hands of the scientists

⁶²⁰ United Nations Resolution 260, “Convention on the Prevention and Punishment of the Crime of Genocide,” December 9, 1948.

⁶²¹ At the ICTR, crimes against humanity was defined as systematic attack against a civilian population on national, political, ethnic, racial or religious grounds. Therefore, in Rwanda, Crimes Against humanity changed the landscape for forensic evidence as well, because it equally meant that evidence of ethnicity gathered from a grave could be used to reveal victims’ group status.

⁶²² Stover and Shigekane, “The missing in the aftermath of war: When do the needs of victims’ families and international war crimes tribunals clash?”

⁶²³ Stover, “The Disappeared,” Talk given at Berkeley Law, February 2016; Stover and Shigekane, “The missing in the aftermath of war: When do the needs of victims’ families and international war crimes tribunals clash?”

or the NGOs they worked for, and given instead to the lawyers, investigators, and policy makers at the tribunals and at the United Nations. The introduction of international legal processes to the global project of human rights brought with it challenges for the forensic scientists who participated in investigations and exhumations. For one thing, there was the problem of access. In the countries of the former Yugoslavia, where the conflict still raged when investigations began, forensic teams had difficulty securing sufficient permissions and protections to exhume graves. And because a charge on the magnitude of genocide or crimes against humanity had not been tried in an international courtroom since Nuremberg, there was considerable uncertainty over how much evidence the prosecution would require. Both of these factors—the danger and limited access, and the uncertain legal and evidentiary requirements needed to prove the charges like genocide—shifted the purpose of forensic investigations into these kinds of crimes in subtle and overt ways. In some cases these shifts affected the scientists—many of whom were used to working closely with and primarily for family members and survivor communities and found it a harsh transition to work in heavily-guarded conflict zones primarily for lawyers and international investigators—bred conflict within forensic teams over the purpose, goals, and methods of their work.

This chapter proceeds in three parts as it touches on these challenges. First, it begins in the still-warring territory of the former Yugoslavia, where Snow and a small team of forensic scientists arrived at the suspected gravesite in Croatia. Although the return trip confirmed the forensic scientist's initial suspicion that the ravine next to the Ovcara farm contained a mass grave, the ongoing conflict and peace negotiations would prevent any further exhumations for nearly four years, until 1996. The second part of the chapter follows forensic teams that began locating and exhuming graves for the International Criminal Tribunal for Rwanda in the meantime: in the summer of 1995, a grave containing the remains of nearly five hundred individuals was opened and fully exhumed—a massive undertaking that was a first for the fledgling international courts. Finally, the chapter moves back to Croatia, where the resolution of the conflict in the Balkans finally allowed for the Ovcara Farm grave to be exhumed, and where forensic scientists played a critical role in assembling evidence against Bosnian Serb commanders in what became known as the Vukovar Hospital Case at the ICTY. It explores the challenges and internal and external conflicts faced by the forensic scientists, ultimately arguing these challenges reflected, in microcosm, the growing pains faced by the human rights movement as a whole as it moved from an NGO-driven advocacy model in the 1980s to a UN-driven legal and investigative model in the 1990s.

I. Vukovar, Croatia, 1992

THE KINGDOM OF Yugoslavia, the Kingdom of the Southern Slavs, was formed out of the ashes of the First World War and unified the three major ethnic groups living on the eastern shores of the Adriatic Sea, across from the boot of Italy. From the beginning, Yugoslavia's ideological underpinnings were inauspicious. The Kingdom was founded on two different, and ultimately competing, ideologies: the concept of the state of south Slavs, based on a shared ethnic heritage and a shared language, had been percolating in the minds of Croatian intellectuals during the nineteenth

century; at the same time, the concept of a Greater Serbia gained traction among the regions' Serbs. After the fall of the Austro-Hungarian Empire at the end of World War I, the way was cleared for Yugoslavia's unification. Yet the marriage of two ideologies that underpinned that state's creation—the Croat vision of unified southern Slavic peoples, or Greater Serbia, as the Serbs conceived it—remained an uneasy one.⁶²⁵

The Second World War brought Nazi occupation and internal ethnic strife, a messy mix of ethnic conflict that resulted in a civil war between three Yugoslav factions: the Ustasha forces of the nationalist Croatians who were supported by and allied with the Nazis; the Chetniks, the Serb nationalist forces; and the Partisans, a separate, largely communist Serb group. After the Nazis took Belgrade in the spring of 1941, the Ustasha quickly threw their support behind the Germans and Italians. In return, the occupying German authorities gave the Ustasha puppet control over Croatia and Bosnia. The Ustasha quickly became known for their brutality; thousands of Serbs and Jews were slaughtered at the Ustasha's hands, including entire villages of ethnic Serbs living in Croatia. Serbs in Bosnia who survived the bloodbaths were rounded up and sent to concentration camps. The position of Bosnia's Muslims in the midst of this ethnic strife was precarious.⁶²⁶ Croat nationalists believed that Muslims were simply Croats who had converted to Islam; therefore, many Bosnian Muslims, seeking to protect their property and to stay alive, threw their lot in with the Ustasha and the Nazis. This was a rational move at the time, one intended to ensure their survival, but it was one for which Bosnian Muslims would ultimately pay very dearly.⁶²⁷

The Serbs, for their part, were divided. The Partisans, led by the popular, charismatic figure of Marshal Josip Broz Tito, opposed the Nazis and the Ustasha. They quickly found themselves fighting another enemy, however: the other Serbian faction, the Chetniks. The Chetniks initially resisted Hitler—they were royalists who wanted to see the continuation of the Kingdom of Yugoslavia—but ultimately threw their lot in with the Nazis. Once they did, they started slaughtering Muslims and Croats. This inter-Yugoslav conflict fed on long-standing ethnic tensions, and it also helped to solidify them. Neighbors turned on neighbors, suddenly willing to kill for ethnic differences they hardly knew they had. Tens of thousands of people were murdered, and thousands more were forced from their homes or corralled into concentration camps.

Events immediately following the end of the war did not seem to bode well for future peace in Yugoslavia. After the German defeat, the Nazi-allied Croat Ustasha was turned over to Marshal Tito, the leader of the Serb Partisans. Tito immediately began summarily executing some 100,000 Croat soldiers.⁶²⁸ Yet even with such a bloody beginning to his rule, Marshal Tito—who himself was the product of ethnically mixed parentage—reigned over a relatively peaceful and unified Communist Yugoslavia until his death in 1980, largely by ignoring ethnicities altogether and recasting the country's bloody history as a unified struggle against Nazi occupation. The Kingdom of

⁶²⁵ *Prosecutor v. Dusko Tadic* (Trial judgment), May 7, 1997, International Criminal Tribunal for the Former Yugoslavia, paras. 59-62.

⁶²⁶ On the efforts of Muslims to create a separate ethnic identity and political positions in the late years of the Second World War, see Chapter 5, "Dilemmas of the New European Order: The Muslim Question and the Yugoslav Civil War" in Greble, *Sarajevo, 1941-1945*, here esp. 163-169.

⁶²⁷ Neuffer, *The Key to My Neighbor's House*, 16.

⁶²⁸ *Prosecutor v. Dusko Tadic* (Trial judgment), May 7, 1997, International Criminal Tribunal for the Former Yugoslavia, para. 63.

Yugoslavia was rebuilt on the idea that atrocities committed by one group against another would be forgotten if they went unacknowledged. And for more than four decades, this suppression of the past was relatively successful: the years from 1945 to 1990 were free from ethnic violence. It was not, however free from violence. Under the slogan “Brotherhood and Unity,” Tito suppressed even the slightest hints of resurgent nationalism, slaughtering Serbs, Croats, Muslims, Slovenes, Macedonians, and Albanians alike, so that no one group found itself more or less repressed than any other.⁶²⁹

After Tito’s death in 1980, the lid he had so carefully clamped over the country’s history came flying off, and latent ethnic tensions and inter-ethnic atrocities of the past bubbled once again to the surface.⁶³⁰ Those bubbles soon came to a rolling boil of ethnic tensions and competing nationalisms.⁶³¹ The Serb dream of a Greater Serbia revived itself,⁶³² and in 1989 Serbian delegates sought to alter the federal constitution to grant greater voting power to Yugoslavia’s more populous Republics, of which Serbia was the greatest; there were more than twice as many Serbs than Croats, the next largest ethnic group, in Yugoslav territory.⁶³³ In response, the representatives from Croatia and Bosnia and Herzegovina walked out of Congress, and the Slovenian leadership resigned.⁶³⁴

In December 1990, Slovenia held a plebiscite, in which the population voted for Slovenian independence from Yugoslavia.⁶³⁵ An election the same year in Croatia brought a nationalist government to power; the following year, Croatians also voted in a plebiscite to secede from Yugoslavia.⁶³⁶ On June 25, 1991, both Slovenia and Croatia declared their independence from the Socialist Federal Republic of Yugoslavia after spending months arming themselves for the possibility

⁶²⁹ Laura Silber and Alan Little, *Yugoslavia*, 29.

⁶³⁰ The breakup of Yugoslavia is a topic of much scholarly writing, debate, and disagreement. Because this is still relatively new history, and because tensions still run high in the countries that make up the former Yugoslavia, there is little consensus about the events that caused the breakup, let alone the underlying causes. For in depth discussions about the differing scholarly opinions and national narratives of Yugoslavia’s breakup, see, e.g. Van Heuven, “Understanding the Balkan Breakup: Three Book Reviews”; and Ramet, *Thinking about Yugoslavia*. For a deeper history of the Second World War’s impact on ethnic and religious identities, see Greble, *Sarajevo, 1941-1945*, especially Chapter 4, “Between Identities: The Fragile Bonds of Community,” 120-147. The version agreed upon by the International Criminal Tribunal for the former Yugoslavia on behalf of the international community is laid out in the May 1997 Trial Judgment in *Prosecutor v. Duko Tadic*. (Trial Chambers in later Judgments, including from the Vukovar Hospital and Srebrenica cases used in this dissertation, cited the narrative detailed in *Tadic* as the general historical background of the Yugoslav breakup.) See also the volume *Yugoslavia: Death of a Nation*, written by Laura Silber, the Balkans correspondent for the *Financial Times*, and Allan Little, who covered the Yugoslav wars for BBC radio and television news; as well as *Balkan Odyssey*, by David Owen, the former British Foreign Secretary, who worked with U.S. Secretary of State Cyrus Vance to propose a peace plan.

⁶³¹ Neuffer, *The Key to My Neighbor’s House*, 18-19.

⁶³² The stirrings of Serb nationalism and the rise of Slobodan Milosevic are discussed in detail in Chapters 1 and 2 of Silber and Little, *Yugoslavia*, 31-47.

⁶³³ Silber and Little, *Yugoslavia*, 29.

⁶³⁴ For more on Slovenia’s secession from Yugoslavia that precipitated the breakup of Yugoslavia, see Chapter 7, “Slovenia and Serbia: The Final Years of Yugoslavia, 1988-1990,” in Jović, *Yugoslavia*, esp. 349-351; *Prosecutor v. Dusko Tadic* (Trial judgment), May 7, 1997, International Criminal Tribunal for the Former Yugoslavia, paras. 70-72.

⁶³⁵ On the Slovene vote for independence, see Chapter 3, Silber and Little, *Yugoslavia*, 48-57; see also *Prosecutor v. Dusko Tadic* (Trial judgment), May 7, 1997, International Criminal Tribunal for the Former Yugoslavia, para. 73.

⁶³⁶ On the Croatian national movement and their vote for independence, see Chapter 4 of Silber and Little, *Yugoslavia*, 58-69; *Prosecutor v. Dusko Tadic* (Trial judgment), May 7, 1997, International Criminal Tribunal for the Former Yugoslavia, para. 74.

of civil war.⁶³⁷ From the perspective of the Serbs and their leader, Slobodan Milosevic, was that if it was possible for states such as Croatia and Slovenia to secede from Yugoslavia, then the Serbs living in those territories should *also* have the right to secede.⁶³⁸ Slovenia had very few Serbs within its borders, so that state was allowed to leave with very little intervention from Belgrade.⁶³⁹ Croatia, which had a large Serb population and had historically Serb lands within its borders, was another matter.⁶⁴⁰

Over the first half of 1991, any remaining signs that the JNA existed for the protection and defense of the Federal Republic of Yugoslavia eroded, and it became clear in the Balkans and beyond that the army would fight only for Belgrade's interests in creating a greater Serbia.⁶⁴¹ One of those interests was the Serb peoples and lands contained within the now independent Croatian state. The war in Yugoslavia broke out in 1991, when the Yugoslav National Army (JNA)—controlled by the Serbs in Belgrade—crossed the border into the newly independent Croatia. The region surrounding the eastern Croatian city of Vukovar was in the JNA's crosshairs from early on. Its very location put it at risk: Vukovar lies on the western bank of the Danube, separated from Serb territory by just the rushing waters of Europe's second longest river; it was also one of the richest areas in Yugoslavia, thanks to the natural resources from the land and the built infrastructure. The population of the Vukovar area also invited Belgrade's intervention. In 1991, about 84,000 people lived in the region. Of these, about 31,500 were Serbs.⁶⁴²

In the last days of August 1991, Vukovar came under a heavy aerial attack by the JNA. The siege lasted until November 18, when Croatian forces capitulated, abandoning their defense line around the city. Two days later, troops arrived at the Vukovar Medical Center. Red Cross and Croatian officials stationed at the hospital told UN investigators that they saw busloads of men being driven away from the hospital. Then, according to survivors, men like the Croatian officer Snow had met in secret in his hotel room in Zagreb, who were able to flee the massacre, the prisoners from the hospital were beaten and then shot by Serb soldiers in a cornfield on the edge of the Ovcara Farm, and buried in the ravine nearby.⁶⁴³

In October 1992, the UN Security Council unanimously passed a resolution establishing a Commission of Experts in response to rumors that had filtered out of the region about the Vukovar hospital and other atrocities and acts of mass killing. It was, as the resolution noted, "a matter of urgency."⁶⁴⁴ The Commission was given a broad mandate to conduct a review of all available information about atrocities, and to send investigators into the conflict zone to survey the situation

⁶³⁷ For more on the arming of Slovenia and Croatia, and those nations' actions prior to declaring independence, see Chapter 8 of Silber and Little, *Yugoslavia*, esp. 105-118.

⁶³⁸ Silber and Little, *Yugoslavia: Death of a Nation*, 147.

⁶³⁹ *Prosecutor v. Dusko Tadic* (Trial judgment), May 7, 1997, International Criminal Tribunal for the Former Yugoslavia, para. 111

⁶⁴⁰ *Prosecutor v. Dusko Tadic* (Trial judgment), May 7, 1997, International Criminal Tribunal for the Former Yugoslavia, para. 112.

⁶⁴¹ Silber and Little, *Yugoslavia*, 169.

⁶⁴² *Prosecutor v. Dusko Tadic* (Trial judgment), May 7, 1997, International Criminal Tribunal for the Former Yugoslavia, para. 18.

⁶⁴³ Chuck Sudetic, "U.N. investigating Croats' grave site," *New York Times*, November 29, 1992.

⁶⁴⁴ "Final Report of the Commission of Experts Established Pursuant to Security Council Resolution 780 (1992)," United Nations Doc. S/1994/674, May 27, 1994.

on the ground. The first year of war between Croatia and Serbia had left no shortage of clandestine graves to for the Commissions' experts to find and investigate.

After forensic experts found the skull and the imprint of the grave in the ravine near Vukovar, Russian soldiers employed by the UN stood watch over the site to ensure that Serb troops wouldn't tamper with the grave for the month it took the UN's Commission of Experts to organize a second investigation into the suspected gravesite.⁶⁴⁵ Aside from adding an empty vodka bottle to the surface of the grave,⁶⁴⁶ the Russian troops kept the grave safe until Snow and a small team of forensic investigators returned to the Ovcara Farm on November 17, 1992. The team included Rebecca Sanders, an archaeologist from Louisiana State University, and Morris Tidball Binz, the Argentine medical student—now a doctor—who had served as Snow's translator on his first trip to Argentina.⁶⁴⁷ Stover, who by this time was the executive director of the Boston-based nongovernmental organization Physicians for Human Rights (PHR), organized the team.

On the cross-Atlantic plane flight from Boston, Stover fiddled with a Sony Handycam video recorder given to him by WITNESS, a newly formed human rights organization. WITNESS's premise at the time was revolutionary: that cameras could be powerful tools in recording the truth of human rights abuses. Gabriel was inspired when, in 1991, a bystander recorded the beating of Rodney King, Jr., on a Handycam, the first small handheld video camera marketed to consumers. Gabriel started WITNESS with the intent of putting video cameras in the hands of eyewitnesses of human rights around the globe.⁶⁴⁸ In the decades since, WITNESS has trained six thousand people to film abuses, and has recorded video in almost one hundred countries. In December 1992, though, WITNESS was in its infancy. The organization gave its first-ever video camera to Stover, to take with him to the Ovcara Farm.⁶⁴⁹ WITNESS had yet to perfect training with the video cameras, though. "Later," he joked in an interview, "I discovered that what I was actually doing was filming my feet."⁶⁵⁰

In the video Stover took of the forensic team's trip back to the gravesite at the Ovcara Farm outside of Vukovar that winter, there is, in fact, considerable footage of Stover's feet, along with bumpy views of the gray-brown, half-frozen mud and stone-covered ground. But his video provides a glimpse into the situation the forensic experts found at the gravesite.⁶⁵¹ The video shows the landscape around the farm was flat and scrubby, covered with the pall of the early winter gray. Nothing about the scene captured on video looks cheerful. Coils of barbed wire ringed the site, and the bullet-riddled trees still stood nearby, along with the rusted out body of a car—perhaps a relic from when the site was merely a graveyard for farm machinery, rather than one for human remains.

⁶⁴⁵ Testimony of Davor Strinovic, *The Prosecutor v. Mrkšić et al.* (Trial transcript), May 23, 2006, International Criminal Tribunal for the former Yugoslavia, 9440.

⁶⁴⁶ *The Prosecutor v. Mrkšić et al.* (Trial transcript), March 28, 1996, International Criminal Tribunal for the former Yugoslavia, 464.

⁶⁴⁷ Stover and Peress, *The Graves*, 109.

⁶⁴⁸ Rosenblatt, *Digging for the Disappeared*, 13.

⁶⁴⁹ Eric Stover in conversation with the author, July 2014.

⁶⁵⁰ Eric Stover in conversation with the author, July 2014.

⁶⁵¹ "DVD 4: [Vukovar grave exhumation] (site visit)," Open Society Archives, 392-2-8: Video recordings of WITNESS, WITNESS Partners Raw Footage, Physicians for Human Rights, HU OSA.

The scientists would later find a slug embedded in the car's metal frame.⁶⁵² Blue beret-wearing Russian peacekeepers stood guard, curiously but silently watching the new arrivals, the forensic scientists. Silhouetted against the gray sky in Stover's Handycam video, Snow wore the same uniform he appears in in photographs from exhumations around the world: a cowboy hat and a canvas bomber jacket, seemingly insufficient cover for the winter morning. A cigarette hung from the corner of his mouth. Tidball, with his shaggy blonde hair, wore a more weather-appropriate blue down vest as he surveyed the area they suspected held the grave.

While Stover filmed the team's preparations with his Handycam, Snow marked the exposed skull with red tape, the one they had found screaming at the sky two months earlier, and then the forensic anthropologist watched as the others cordoned off the perimeter of the suspected grave with twine, and then marked a meter-wide swath through it. They would dig only this section, to see if they were on the right track. If they found the number of bodies Snow suspected lay under the ground, they would have to bring back a much larger forensic team to exhume the entirety of the grave. Morris started to shovel off the overgrowth, just skimming the ground with the metal blade to remove the vegetation. A group of Luxembourg mine-clearing experts from the UN Protection Force swept the grave with a metal detector, which rang wildly as it picked up on the spent cartridges scattered throughout the grave.⁶⁵³ As the soldiers used rods to estimate bullet trajectories based on the holes they left in the acacia trees nearby, Snow picked up a silver-colored necklace found around the neck of a skeleton found on the surface, likely pushed from the grave by the bulldozer that backfilled the grave with dirt over the bodies. Stover zoomed in on the anthropologist's hands as he brushed the dirt off the medallion with his thumb.⁶⁵⁴ "BOG I HRVATI," it read, next to an engraved Roman Catholic cross. "God and the Croatians."⁶⁵⁵

The little medallion would turn out to be an important piece of the forensic puzzle, because it would later be used to establish in court that at least one of the bodies in the grave was likely Croatian.⁶⁵⁶ Later digging would turn up medical equipment such as an IV pole, crutches, and braces, challenging the Serbs' claim that the bodies in graves found belonged to combatants, killed in battle. And the bones told the forensic anthropologist still more. The first exposed skeleton was a male, 25 or 30 years old, Snow thought, based on his pubic bones and the ossification of his ribs. And his skull offered even more specific information. Snow, through his cigarette, observed, "his canines are protruding. This is something his mother would remember." He looked closer. "Damn. We need a toothbrush."⁶⁵⁷

⁶⁵² Testimony of Eric Stover, "Hearing of the Commission on Security and Cooperation in Europe: Regarding the Refugee Crisis and War Crimes," January 25, 1993, minute 57.

⁶⁵³ *The Prosecutor v. Mrkšić et al.* (Trial transcript), March 28, 1996, International Criminal Tribunal for the former Yugoslavia, 466.

⁶⁵⁴ "DVD 4: [Vukovar grave exhumation] (site visit)," 392-2-8: Video recordings of WITNESS, WITNESS Partners Raw Footage, Physicians for Human Rights, HU OSA.

⁶⁵⁵ Stover and Peress, *The Graves*, 110.

⁶⁵⁶ *The Prosecutor v. Mrkšić et al.* (Trial transcript), March 28, 1996, International Criminal Tribunal for the former Yugoslavia, 473.

⁶⁵⁷ "DVD 4: [Vukovar grave exhumation] (site visit)," 392-2-8: Video recordings of WITNESS, WITNESS Partners Raw Footage, Physicians for Human Rights, HU OSA.

As it turned out, the skeleton crew of a forensic team would need more than a toothbrush. The one meter wide test trench dug by the small forensic team in December 1992 turned up nine sets of human remains. And, as the Luxembourg de-mining detachment swept the area once more, the forensic scientists followed along behind, marking with red flags the points where their metal detectors identified spent cartridges that lay on the surface. All of them were 7.65mm shells fired from AK-47s, which eject from the gun about ten to fifteen feet to the right of the shooter. In nearby trees, they found bullet marks—in one case, a bullet had passed all the way through a sapling, leaving a hole in the trunk that betrayed the bullet's path. By correlating these two pieces of information, the scientists were able to determine the position of the shooters: they must have made the men stand in the grave and then stood at one corner, shooting into it—and into the men cowering within.⁶⁵⁸ This discovery convinced all of the forensic scientists that they had located a mass grave of significant size on the edge of the Ovčara Farm, a grave likely to hold the remains of the two hundred missing men from the hospital in nearby Vukovar. Yet they had neither the manpower nor the permissions to conduct a full-scale exhumation of the grave. With the help of Russian soldiers, the four-person forensic team shoveled dirt back into the trench, and unspooled coils of barbed wire around the site to keep any intruders at bay. Just before they left, Snow put the remains of two skeletons found some distance from the grave into white plastic bags.⁶⁵⁹ On a piece of duct tape on each bag he labeled them “Ovčara 1” and “Ovčara 2.” Then, in anticipation of a future exhumation, Snow buried the bags in one corner of the suspected gravesite.⁶⁶⁰ Snow later told the ICTY courtroom that he was concerned that it might take them months or years to get clearance to return. In the meantime, he worried that “these surface skeletons would be scattered or disturbed, so we thought it was better to go ahead and bag them up [...] put them in this trench so that they could be found later and would be in a good state of preservation.”⁶⁶¹

After leaving Vukovar, Stover and Snow remained convinced they had found something of international importance—evidence of a war crime committed by the Serbs—and that they had a duty to tell the international community about what they found. Chuck Sudetic, a journalist at the *New York Times* named who would build his name on his coverage of the breakup of Yugoslavia and, later, the Srebrenica massacre, ran a story about Vukovar on the *Times*' front page.⁶⁶² Sudetic's story reported that both the international humanitarian groups like the Red Cross and Croatian officials believed the grave found near the Ovčara Farm contained the bodies of the Croats who had been missing from the Vukovar hospital since November 20, 1991, two days after JNA troops took Vukovar. He also reported the first rumors of international response: the gravity of the crime, he wrote, might occasion the establishment of the first international war crimes tribunal. Members of

⁶⁵⁸ *The Prosecutor v. Mrkšić et al.* (Trial transcript), March 28, 1996, International Criminal Tribunal for the former Yugoslavia, 471.

⁶⁵⁹ Testimony of Eric Stover, Hearing of the Commission on Security and Cooperation in Europe: Regarding the Refugee Crisis and War Crimes, January 25, 1993, minute 57; *The Prosecutor v. Mrkšić et al.* (Trial transcript), March 28, 1996, International Criminal Tribunal for the former Yugoslavia, 474.

⁶⁶⁰ Stover and Peress, *The Graves*, 110.

⁶⁶¹ *The Prosecutor v. Docmanović* (Trial transcript), March 28, 1998, International Criminal Tribunal for the former Yugoslavia, 1562.

⁶⁶² Chuck Sudetic, “U.N. Investigating Croat's Grave Site,” *New York Times*, November 29, 1992; Eric Stover in conversation with the author, July 2014.

the U.N.'s Commission of Experts, Sudetic wrote, said there was sufficient legal basis to prosecute the case under domestic law, but also on the basis of international conventions on war crimes and crimes against humanity, provided a treaty for international jurisdiction was signed. "There is a viable possibility for establishing an international jurisdiction to deal with the alleged war crimes," read a report from the Council on Security and Cooperation in Europe written the previous month. It continued, "An international jurisdiction must be set up to meet the highest standards of legal protection."⁶⁶³ Although there were rumors and suggestions circulating in the ether that a tribunal might be set up to try Serb war crimes, many in the UN including Cyrus Vance worried that pushing the issue would only hurt the peace efforts—efforts they felt were more pressingly important than any post-conflict prosecutions.⁶⁶⁴ Raising the specter of punishing Serbs for war crimes would hardly incline them to participate in peace efforts. Yet for members of the forensic team like Stover and Snow, such political justifications weren't enough reason to cover up what they had seen: skeletons of murdered Croats from a hospital called for further investigation.

In January 1993, less than a month after he returned from Vukovar, Stover testified before the US Congress's Commission on Security and Cooperation in Europe Regarding the Refugee Crisis and War Crimes.⁶⁶⁵ As Stover flipped through slides in the darkened House chamber, images of the grave outside of Vukovar, Snow measuring long bones, bullet riddled skulls, and blue beret wearing Russian soldiers, flashed across a screen. Stover explained that the evidence they found in the test trench—nine skeletons, Kalashnikov cartridges and slugs, and, in particular, the Roman Catholic crosses and the medallion reading "God and the Croatians"—was not inconsistent with the men who went missing from the Vukovar hospital. But, he cautioned the Congressmen, more work would need to be done before anything could be said with certainty. The grave needed to be exhumed by a team of scientific experts, he said, and a number of bodies would have to be identified "using forensic methods and techniques." Physicians for Human Rights, he went on, planned to continue doing forensic work in other regions of the former Yugoslavia. This was not a partisan effort, he emphasized, but one aimed at justice, accountability, and fact-finding. PHR intended to investigate not just suspected Serbian crimes, but possible atrocities committed by Bosnian and Croatian troops as well. Stover was already thinking ahead to an era where forensic evidence would not just expose war crimes and human rights violations to the view of the international community, but it would also be used to convict the perpetrators in international courts. "This is physical evidence," he said. "This is the kind of evidence that, if witnesses aren't present, it can still be used as court admissible evidence. Physical evidence of this sort becomes the *corpus delicti*. We're hopeful [...] if a tribunal is established, we can bring this information and justice will be done."⁶⁶⁶

⁶⁶³ Chuck Sudetic, "U.N. Investigating Croat's Grave Site," *New York Times*, November 29, 1992.

⁶⁶⁴ For more on Cyrus Vance and the peace process from individuals who were present at the time, see: from David Owen, who served as co-chairman of the Conference for the Former Yugoslavia, *Balkan Odyssey*; and from Richard Holbrooke, President Clinton's special envoy to the Balkans and the US's chief negotiator at the Dayton Accords, *To End a War*.

⁶⁶⁵ Testimony of Eric Stover, Hearing of the Commission on Security and Cooperation in Europe: Regarding the Refugee Crisis and War Crimes, January 25, 1993, minute 57.

⁶⁶⁶ Testimony of Eric Stover, Hearing of the Commission on Security and Cooperation in Europe: Regarding the Refugee Crisis and War Crimes, January 25, 1993, minute 1:01-1:03.

Not since the Nuremberg Tribunal, had there been an international court such as the one Stover outlined. Yet there were reasons why the conflict in the Balkans offered a chance to revive the idea of international courts and of prosecuting international crimes. First, metaphors comparing the Balkan conflict to the Holocaust were easy to make—they were both acts of ethnic and religious violence on the European continent that occurred under the nose of the international community—but hard to stomach. The post-Holocaust refrain had been “never again,” never again would the world stand by and watch the destruction of a people. Yet the reports filtering out of Bosnia, like those brought to the press and to the US Congress by Stover and Snow, suggested that the world was doing precisely that: ignoring genocide.⁶⁶⁷

The UN took a first concrete step toward establishing such a tribunal in early 1993. On February 22, the Security Council passed Resolution 808, which stated that it “[d]ecides that an international criminal tribunal be established for the prosecution of persons responsible for serious violations of international humanitarian law committed in the territory of the former Yugoslavia since 1991.”⁶⁶⁸ In May, a statute for such a court passed the Security Council, officially establishing the International Criminal Tribunal for the former Yugoslavia (ICTY). In the Commission of Experts was instructed to continue its work “on an urgent basis.”⁶⁶⁹

Yet while the work may have been urgent, it was not easy. After Snow, Stover, and their small forensic team left Vukovar for the second time in December 1992—after locating the engraved Croatian cross and reburying the bodies labeled Ovcar 1 and 2—the UN’s Commission of Experts spent the better part of 1993 trying to overcome various obstacles to conducting a full exhumation. These obstacles included practical matters: how to exhume bodies from the ravine, transport them and other physical evidence to a morgue, and conduct scientifically-sound autopsies in the middle of a war zone. More difficult, though, was overcoming the political obstacle. Serbian permission—both locally in the eastern sector of Croatia, in the city of Knin, and in the Serbian power center of Belgrade—to perform exhumations of suspected Serbian crimes proved unsurprisingly difficult to obtain. From March through October 1993, representatives from the Commission of Experts negotiated for the right to exhume Ovcar, offering “as a matter of balance” to simultaneously excavate a second mass grave believed to contain Serb victims in the area of Pakracka Poljana and Marino Selo.⁶⁷⁰

On the fifth of September, Commission of Experts representatives believed they had a deal. The Commission put in place plans to send forensic teams to both Ovcar and to the Serb grave in Pakracka Poljana in mid-October. When they arrived, however, the Commission representatives were informed that no excavations could be done in Ovcar until “a political solution was found to the situation in the former Yugoslavia.” Proceeding without permission, they feared, would put all of the forensic personnel, not to mention the UN Protection Force troops assigned to guard them as

⁶⁶⁷ See Power, *A Problem from Hell*, 358-362.

⁶⁶⁸ United Nations Security Council Resolution 808, February 22, 1993. For more general overviews, see Bassiouni, “The United Nations Commission of Experts Established Pursuant to Security Council Resolution 780 (1992),” 791; Meron, “The Case for War Crimes Trials in Yugoslavia,” 122.

⁶⁶⁹ United Nations Security Council Resolution 827, May 25, 1993.

⁶⁷⁰ “Final Report of the Commission of Experts Established Pursuant to Security Council Resolution 780 (1992),” 1994, paras. 265-269.

they exhumed the grave, at risk. The stalemate continued for weeks, with forensic anthropologists and scientists alternately working on the Serb grave and waiting for clearance to start at Ovcara. By the tenth of November, though, no agreement had been reached. The calendar, however, made the decision for them: the coming cold weather made it impractical to start an exhumation. The Commission left UN Protection Force troops guarding the gravesite, hoping to return the following spring.⁶⁷¹ They could hardly have known, though, quite how long UN troops would be left guarding a slight depression in the dirt next to a cornfield. The grave wouldn't be exhumed for almost four years.

II. Rwanda, 1995

ALTHOUGH THE FORENSIC effort in the countries of the former Yugoslavia would ultimately dwarf anything attempted by other international tribunals, the ongoing conflict in the Balkans stalled any plans for exhumations for the next four years. In the meantime, the attention of the world was drawn three thousand miles south of Croatia, to another conflict that erupted into bloody violence: Rwanda. In the wake of the Rwandan Genocide, an ethnically driven conflict that took the lives of hundreds of thousands of people in the course of the summer of 1994,⁶⁷² the UN established a second *ad hoc* court that fall. It was under the auspices of that court that, in December 1995, a group of forensic scientists found themselves outside a church in Kibuye province, preparing to exhume a huge grave in a churchyard in Kibuye, Rwanda.

The spark that set off a wildfire of violence in Rwanda occurred on the evening of April 6, 1994, when the airplane carrying Rwandan President Juvenal Habyarimana and Burundian President Ntaryamirai crashed as it approached the runway in Kigali, Rwanda's largest airport, killing everyone on board. The crash—which many of the late President's supporters believed to be an assassination—blew the lid off long-simmering tension between Rwanda's two major ethnic groups: the majority Hutu, the group to which the President belonged, and the minority Tutsi, who were blamed with Habyarimana's assassination.⁶⁷³ Rwanda's ethnic divide—and the very categories of Hutu and Tutsi—is a fairly recent one, far more a product of the country's colonial history than of any long-standing cultural, linguistic, or “tribal” distinctions between the groups.⁶⁷⁴ In 1994, there

⁶⁷¹ “Final Report of the Commission of Experts Established Pursuant to Security Council Resolution 780 (1992),” 1994, paras. 270-274.

⁶⁷² The number of civilian victims of Rwanda's genocide is a point of much debate, and estimates vary wildly, from 500,000 to more than a million. On the lower end, see Des Forges, *Leave None to Tell the Story*, 15-16. The most commonly cited figure is 800,000, see, e.g. Cohen, *One Hundred Days of Silence*, 14. The ICTR cited a figure of 800,000 to one million, or nearly one-seventh of Rwanda's population. See *Prosecutor v. Clement Kayishema and Obed Ruzindana* (Trial Judgment), May 21, 1999, International Criminal Tribunal for Rwanda, para. 291.

⁶⁷³ *Prosecutor v. Clement Kayishema and Obed Ruzindana* (Trial Judgment), May 21, 1999, International Criminal Tribunal for Rwanda, para. 291.

⁶⁷⁴ Numerous scholars have taken up the question of Tutsi and Hutu designations, examining their history and whether or not they should be considered ethnic categories at all. For more on the historical and colonial roots of ethnicities in Rwanda, see, e.g. Gourevitch, *We Wish to Inform You*; Mamdani, *When Victims Become Killers*. The ICTR also examined the question of ethnic difference in the context of whether or not the violence in Rwanda could be considered genocide. See especially *Prosecutor v. Jean-Paul Akayesu* (Trial Judgment), September 2, 1998, International Criminal Tribunal for

were three ethnic groups officially recognized in Rwanda: the Hutus, Tutsis, and the Twas. The Hutus were a vast majority of the population, constituting an estimated 85-91%,⁶⁷⁵ yet under colonial rule—first by the Germans, who arrived in 1897, and then by the Belgians, who assumed control over Rwanda after the First World War—they had been an oppressed group, effectively afforded second-class status to Tutsis. The primacy of Tutsis was a societal norm prior to the arrival of colonizing Germans, but the barrier between the groups was class-based and therefore permeable: with enough wealth, a Hutu could become a Tutsi.⁶⁷⁶ It was only under Belgian rule that these flexible categories of class began to ossify into hard and fast ethnic distinctions, complete with national identification cards issued in 1931 that labeled individuals as ethnically Hutu, Tutsi, or Twa. During the 1994 genocide, these cards were used to determine who should live and die.⁶⁷⁷

The violence that followed Habyarimana's death on April 6, 1994 was swift and brutal. During the night, the Hutu-dominated Rwandan army, the Interahamwe, built roadblocks around the capital city. Before dawn broke, Hutu militia had started massacring Tutsis in the government, and Hutus known to be sympathetic to the notion of a power balance between the ethnic groups in the Rwandan government.⁶⁷⁸ By the twelfth of April, calls went out over Radio Rwanda, the state radio station, which made it clear Tutsis were the enemy and that they were to be targeted. The killing reached its peak levels in the third week of April. Testimonies taken by the organization African Rights suggest that, by April 21, a quarter million people had lost their lives, most of them Tutsi.⁶⁷⁹ Hutu soldiers and militia members indiscriminately targeted Tutsi men, women, and children, often brutally murdering them with machetes.⁶⁸⁰ When the violence finally ended in July, between 500,000 and one million people had been killed. Their bodies lay in piles in the streets, strewn on Rwanda's hillsides, on the pews of churches where they had taken refuge, and in hastily-dug mass graves.⁶⁸¹

During the weeks and months of the genocide, many Tutsi civilians fled to churches across the country for protection. By April 17, less than two weeks after the president's plane crash and the onset of violence, thousands of Tutsi men, women, and children had gathered around the Catholic

Rwanda, paras. 170-172; see also, *Prosecutor v. Clément Kayishema and Obed Ruzindana* (Trial Judgment), May 21, 1999, International Criminal Tribunal for Rwanda, paras. 34-36, 78-86.

⁶⁷⁵ The last census before the genocide reported that Hutus were 91.1% of the population, the Tutsis were 8.4%, and the Twa less than 0.4%. See République Rwandaise, *Recensement general de la population et de l'habitat au 15 Aout 1991*, 124. However, most scholarship on Rwanda uses statistics left over from Belgian colonial rule, which puts Hutus at 85% and Tutsis at 14%. See, e.g., Des Forges, *Leave None to Tell the Story*, 37.

⁶⁷⁶ See *Prosecutor v. Clément Kayishema and Obed Ruzindana* (Trial Judgment), May 21, 1999, International Criminal Tribunal for Rwanda, paras. 34-36. See also Cohen, *One Hundred Days of Silence*, 11; Prunier, *The Rwanda Crisis*, 25.

⁶⁷⁷ As noted in *Prosecutor v. Clément Kayishema and Obed Ruzindana* (Trial Judgment), May 21, 1999, International Criminal Tribunal for Rwanda, para. 35. Clea Koff observes that, although the genocide's planners claimed that the two groups did have ethnic differences that rendered them visually distinguishable—Hutus were “described as stocky, dark-skinned, and broad-nosed”; Tutsis were “tall, with straight noses, and lighter brown skin”—the stereotypes could not have easily translated to reality, since identity cards were used to determine a person's ethnicity even at the height of the violence. Koff, *The Bone Woman*, 86.

⁶⁷⁸ *Prosecutor v. Jean-Paul Akayesu* (Trial Judgment), September 2, 1998, International Criminal Tribunal for Rwanda, para 107.

⁶⁷⁹ Kuperman, *The Limits of Humanitarian Intervention*, 16.

⁶⁸⁰ *Prosecutor v. Jean-Paul Akayesu* (Trial Judgment), September 2, 1998, International Criminal Tribunal for Rwanda, paras. 111.

⁶⁸¹ Power, *A Problem from Hell*, 334.

Church and the Home St. Jean complex in Kibuye town, located in the western part of Rwanda, on the eastern shores of Lake Kivu. Some hoped that the church would offer them protection from attacks on Tutsis that had occurred across the region in recent days. Others went to the church in compliance with orders from the *Prefect* of the larger Kibuye *Prefecture*—which includes Kibuye town—a man named Clement Kayishema.⁶⁸² On the 17th, communal police and Interahamwe soldiers stormed the church complex, using guns, grenades, machetes, and spears to kill the assembled Tutsis.⁶⁸³ When forensic teams arrived eighteen months later, they would find skeletonized sets of remains, adults and children, strewn on the hillsides around the church. Often those bones would have deep cuts visible in the back of the lower leg bones: pursuers had aimed machete blows at their Achilles tendons to stop them from running away.⁶⁸⁴

Throughout the height of the killing in April and through the spring, the international community debated the nature of the conflict, and stalled for time on the question of whether or not they should intervene. Much of the debate turned on the use of the “g-word”: genocide.⁶⁸⁵ In western governments, there was a fear that labeling the conflict “genocide” would obligate them to intervene to stop it. An internal US government discussion paper on Rwanda dated May 1 read, “Be careful. Legal at State was worried about this yesterday—Genocide finding could commit [the U.S. government] to actually ‘do something.’”⁶⁸⁶ But the reports filtering out of the country in April and May—reports that cited hundreds of thousands dead in a matter of weeks—made it difficult to ignore the scale of the violence.⁶⁸⁷ By the third week of April, humanitarian and nongovernmental organizations like Human Rights Watch and the International Committee of the Red Cross had expressed public concern about the reports of mass murder in Rwanda’s streets; by the end of the month, others, like Pope John Paul II and the humanitarian organization Oxfam, used the word “genocide” to describe the violence.⁶⁸⁸ A confidential memo from US Secretary of State Warren Christopher to the US Mission to the UN in Geneva authorized all officials to state publicly that “acts of genocide” had occurred on May 21; internally, it authorized them to acknowledge that “genocide has occurred in Rwanda.”⁶⁸⁹ Yet it was only in mid-July, more than a week after the cessation of the violence, that the Clinton administration took any concrete steps, closing the Rwandan embassy in the US and freezing the country’s assets.⁶⁹⁰

⁶⁸² *Prosecutor v. Clement Kayishema and Obed Ruzindana* (Trial Judgment), May 21, 1999, International Criminal Tribunal for Rwanda, paras. 25-26.

⁶⁸³ *Prosecutor v. Clement Kayishema and Obed Ruzindana* (Trial Judgment), May 21, 1999, International Criminal Tribunal for Rwanda, para. 28.

⁶⁸⁴ Cited Testimony of William Haglund, 26 November 1997, in *Prosecutor v. Clement Kayishema and Obed Ruzindana* (Trial Judgment), May 21, 1999, International Criminal Tribunal for Rwanda, para. 326; see also Koff, *The Bone Woman*, 636.

⁶⁸⁵ In the words of National Security Advisor Anthony Lake, as cited by Cohen, *One Hundred Days of Silence*, 134. See also section titled “The ‘G-Word,’” in Power, *A Problem from Hell*, 358-364.

⁶⁸⁶ “Office of the Secretary of Defense, “Secret Discussion Paper: Rwanda,” May 1, 1994,” in Power, *A Problem from Hell*, 359.

⁶⁸⁷ As cited in Power, *A Problem from Hell*, 362.

⁶⁸⁸ See Cohen, *One Hundred Days of Silence*, 134; see also: “Press Release, Human Rights Watch/Africa Watch, April 20, 1994,” reproduced in Kuperman, *The Limits of Humanitarian Intervention*, 27-28.

⁶⁸⁹ “Confidential memo from Warren Christopher to the US Mission to the UN in Geneva, “Subject: UN Human Rights Commission: “Genocide” at Special Session on Rwanda,” May 24, 1994, reproduced in Power, *A Problem from Hell*, 362.

⁶⁹⁰ “White House briefing, Federal News Service, July 15, 1994,” in Power, *A Problem From Hell*, 381.

On July 1, 1994, the UN's Security Council commissioned UN Secretary-General Boutros Boutros-Ghali to establish a Commission of Experts, similar to the one in Yugoslavia, to begin official investigations.⁶⁹¹ Members of the Commission landed in Rwanda at the end of August, and spent four weeks traveling the county and talking with Tutsi refugees in neighboring countries. By the time the Commission issued its interim report, at the end of September, Ghali was convinced: "individuals from both sides to the armed conflict have perpetrated crimes against humanity," but "acts of genocide against the Tutsi group were perpetrated by Hutu elements in a concerted, planned, systematic, and methodical way."⁶⁹² After the Commission issued its final report in November,⁶⁹³ which found "acts of genocide and other systematic, widespread and flagrant violations of international humanitarian law had been committed in Rwanda,"⁶⁹⁴ the UN passed resolution 955, establishing the International Criminal Tribunal for Rwanda.⁶⁹⁵ The ICTR was set up in Arusha, Tanzania, the following year. Although the acts of killing were hard to deny—journalists had captured photographs of bodies strewn in the streets, and eyewitness accounts told of thousands of indiscriminate killings—proving the cases in a legal setting still posed a problem. "Unlike the leaders of Nazi Germany, who meticulously documented their acts during World War II, the organizers and perpetrators of the massacres that occurred in Rwanda in 1994 left little documentation behind."⁶⁹⁶

Faced with limited documentary evidence—in particular, documentary evidence that clearly showed the intent required for genocide—the ICTR's first Chief Prosecutor, a South African judge named Richard Goldstone, turned to forensic evidence to supplement witness testimony. Goldstone contacted Stover to ask if he could conduct a survey of Rwanda's mass graves. Stover traveled to the east African country to conduct the survey in the summer of 1995. Even a year after the massacres, decomposing bodies and bones littered Rwanda's streets, rivers, and hillsides. Piles of bodies were stacked outside of churches, local prefectures, and stadiums, places where Tutsis were ordered to assemble or where they had gathered for protection.

Stover returned to PHR headquarters in Boston with firsthand knowledge of the enormous scale of the forensic work that could be done in Rwanda. PHR assembled a sizeable forensic team—sixteen archaeologists, anthropologists, pathologists, and autopsy assistants—that arrived in December 1995 in Kibuye Parish, Rwanda, at the Catholic Church where Tutsis had gathered and been massacred the previous April. Preparations for the exhumation took the better part of a

⁶⁹¹ "Letter Dated 1 October 1994 from the Secretary-General Addressed to the President of the Security Council," United Nations Security Council.

⁶⁹² "Letter Dated 1 October 1994 from the Secretary-General Addressed to the President of the Security Council," United Nations Security Council; "Preliminary Report of the Commission of Experts established pursuant to Security Council resolution 935 (1994)," October 4, 1994.

⁶⁹³ "Final Report of the Commission of Experts Established Pursuant to Security Council Resolution 780 (1992)," 1994; "Report on the situation of human rights in Rwanda submitted by Mr. René Deqni-Séqui, Special Rapporteur of the Commission on Human Rights, under paragraph 20 of resolution S-3/1 of 25 May 1994," United Nations Economic and Social Council.

⁶⁹⁴ *Prosecutor v. Jean-Paul Akayesu* (Trial Judgment), September 2, 1998, International Criminal Tribunal for Rwanda, para. 2.

⁶⁹⁵ Security Council resolution 955, November 8, 1994.

⁶⁹⁶ *Prosecutor v. Clement Kayishema and Obed Ruzindana* (Trial Judgment), May 21, 1999, International Criminal Tribunal for Rwanda, para. 65.

month, as the team hired locals to help dig and move bodies, and set up a makeshift autopsy tent, where the pathologists could examine the bodies to determine age, gender, and cause of death of each body they removed. The excavation itself got underway in mid-January. A WITNESS Handycam—this one more deftly operated than the one Stover had used to film his feet three years earlier, at the Ovcaro Farm in Croatia—recorded the scene as hired locals began removing the topsoil, the overburden, and the back dirt that covered the grave to expose the top layer of bodies.

As they got lower in the grave, closer to the level containing human remains, the process of digging became more careful and painstaking, done mostly by hand; the forensic anthropologists and archaeologists took over from the laborers, using trowels and shovels to slowly and carefully clear the remaining dirt above and around the bodies.⁶⁹⁷ Nature also served to complicate matters: set into the bottom of a hill, the grave served as a natural drainage area for much of the surrounding hillside, so they struggled from the get-go with water in the grave. That problem only got worse as they dug deeper. Locals dug circular trenches around the gravesite, intended to serve as drainage routes for excess standing water. The blazing equatorial sun scalded the skin of the forensic anthropologists, and rapidly accelerated the decomposition of the bodies as they were brought to the surface. Tarps were strung up in elaborate, makeshift tents over the graves, in an attempt to keep all of the bodies—dead and alive—out of the sun. “Our concerns are to get the remains out quickly and efficiently and in as good shape for autopsies as possible,” Melissa Connor, an American forensic anthropologist, said into the WITNESS Handycam.⁶⁹⁸ The crunchy sound of plastic tarps snapping in the breeze is the constant background noise of the video footage from the gravesite. Three weeks after digging began, “the logistics alone have been interesting, quite a struggle,” Melissa Connor said, over the sound of tarps flapping, three weeks after digging began, as the shot panned from her face to the open pit behind her. “It took us quite a while to dig this hole.”⁶⁹⁹

Logistical considerations were not the only challenges facing the forensic scientists working on the grave in Kibuye. Another practical consideration was receiving the acceptance, blessing, and trust of the local population and Rwandan officials, many of whom were curious or confused about the forensic work, or outright hostile to the foreign scientists’ presence. The team had to answer questions about why they were there, and what it was doing, both to the Rwandan government and to the Rwandan people, many of whom didn’t understand the international communities’ rationale for digging up the gristly aftermath of the country’s bloody summer. Bill Haglund, an American forensic scientist who served as the UN’s senior scientific expert and oversaw the exhumations, recalled that politicians and locals alike him, “Well, why are you here? We know there’s been a genocide in Rwanda. What do you have to add to that information?”⁷⁰⁰ Unlike the case of the *Madres de la Plaza de Mayo*, where the mothers of the victims believed their children to still be alive, the

⁶⁹⁷ Statement of Melissa Connor, DVD 2: [Rwanda Exhumation] Part 1 (site visit), 392-2-8: Video recordings of WITNESS, WITNESS Partners Raw Footage, Physicians for Human Rights, HU OSA, minute 18.

⁶⁹⁸ Statement of Melissa Connor, DVD 2: [Rwanda Exhumation] Part 1 (site visit), 392-2-8: Video recordings of WITNESS, WITNESS Partners Raw Footage, Physicians for Human Rights, HU OSA, minute 18.

⁶⁹⁹ Statement of Melissa Connor, DVD 2: [Rwanda Exhumation] Part 1 (site visit), 392-2-8: Video recordings of WITNESS, WITNESS Partners Raw Footage, Physicians for Human Rights, HU OSA, minute 18.

⁷⁰⁰ Statement of Bill Haglund, DVD 1: [Rwanda Exhumation] Part 1 (site visit), 392-2-8, Video recordings of WITNESS, WITNESS Partners Raw Footage, Physicians for Human Rights, HU OSA, minute 21:40.

Rwandan opposition came from an acceptance that their missing were dead. They saw no use in digging up their bodies to prove with science what they had seen with their own eyes.⁷⁰¹

Haglund thought long and hard about how to answer these questions. “Our answer,” he said on that February afternoon as he relaxed in the shade, “has been that the living have given testimony to the tribunal. Now it’s the opportunity through us that the dead are giving testimony. And the kind of information that we’re collecting is objective, and any anthropologist or archaeologist from around the world could look at this and say, ‘Yes, indeed, that’s what I see.’” It also served to preserve the eyewitness evidence for future generations, in a way that would survive long after the memories of eyewitnesses. Forensic evidence, Haglund reflected, can prevent “revisionists from coming along later and saying ‘Well, nothing happened.’”⁷⁰² In the immediate term, it also added weight to claims that many Rwandans already knew: the bloodbath in the summer of 1994 was no civil war, or clash between combatants from the two major ethnicities. The grave’s skeletons, most of them showing major skeletal damage from machete blows, were largely those of women, the elderly, and infants. Another volunteer for the Rwanda exhumation, Bob Kirschner, director of PHR’s International Forensic Program, sat next to Haglund in the shade. Kirschner observed dryly that the bodies in the grave would not have made “a very effective fighting force.”⁷⁰³

The grave in the Kibuye churchyard was the largest mass burial exhumed for human rights purposes up to that point,⁷⁰⁴ other than the Katyn Forest grave more than a half-century earlier. Ultimately it contained the remains of a minimum of 493 individuals.⁷⁰⁵ It was also the first one to be exhumed for the purpose of building a case for an international tribunal. As they wrapped up their work at the exhumation site, the forensic team sat down on the grassy lawn of the guesthouse where they had stayed to debrief. The conversation started with logistics: they had received the wrong equipment, or broken equipment; they needed more archaeologists to map the grave; next time, a generous stash of elbow length gloves would be a non-negotiable. But soon, they became more reflective. Clea Koff, a young American forensic anthropologist, would later write that they asked themselves, “How much forensic evidence is enough? Is it necessary to dig every grave in Rwanda to prove that genocide happened?”⁷⁰⁶ The forensic scientists simply didn’t know.

Neither did anyone, really. Koff wrote later that the determination of how much forensic evidence would be necessary for international tribunals would ultimately be left up to the ICTR’s judges, “and *they* didn’t know.”⁷⁰⁷ When the PHR forensic team made its trip to Rwanda, it simply was not yet known how much forensic evidence would be needed for an international criminal tribunal that sought to charge high-level perpetrators with crimes against humanity and genocide. They were acutely aware of the first-ness of their work. As the forensic team worked to close the

⁷⁰¹ Rosenblatt, *Digging for the Disappeared*, 29.

⁷⁰² Statement of Bill Haglund, DVD 1: [Rwanda Exhumation] Part 1 (site visit), 392-2-8, Video recordings of WITNESS, WITNESS Partners Raw Footage, Physicians for Human Rights, HU OSA, minute 21:40.

⁷⁰³ Statement of Bob Kirschner, DVD 1: [Rwanda Exhumation] Part 1 (site visit), 392-2-8, Video recordings of WITNESS, WITNESS Partners Raw Footage, Physicians for Human Rights, HU OSA, minute 21:40.

⁷⁰⁴ Koff, *The Bone Woman*, 26.

⁷⁰⁵ *The Prosecutor v. Clément Kayishema and Obed Ruzindana* (Trial Judgment), ICTR-95-1-T, International Criminal Tribunal for Rwanda (ICTR), 21 May 1999, para. 326.

⁷⁰⁶ Koff, *The Bone Woman*, 75.

⁷⁰⁷ Koff, *The Bone Woman*, 75.

grave, Kirschner and Haglund took a break under the shade of a tree and reflected on the previous two months' work as the WITNESS Handycam rolled. "The work we've done here constitutes the largest exhumation ever undertaken that we know of. [...]" Their work, he continued, "set a new standard in producing evidence for war crimes trials and future work in the forensic analysis of mass graves."⁷⁰⁸ Both men believed that the forensic evidence they collected in the grave could be used to advance the cause of justice by producing physical evidence that strengthened the case by corroborating other forms of evidence, such as witness testimony. "The living have told their stories," Haglund told the WITNESS camera. "The dead have been patiently waiting. They wait as flesh, they wait as bone. And we have to come along and interpret whatever is there. This grave, empty as it is, is almost like an echo chamber because it echoes the testimony that the living witnesses told, and it will add to what they said."⁷⁰⁹ Yet in the courtroom in Arusha, where the ICTR established its headquarters, the expectations of forensic fact finding and evidence production bumped up against hard realities: lack of resources, lack of established protocols, lack of public understanding and support, all of which made it difficult to produce evidence that stood on its own in court. Despite the optimism of the forensic scientists evidenced on the WITNESS video, when it came down to forensics' entrée into the international human rights courtroom—its first since Nuremberg—the Rwandan exhumations ended up being somewhat less than a triumph.

Three months after leaving the Catholic Church in Kibuye, Haglund, a young American anthropologist named Clea Koff, and the other members of the Physicians for Human Rights forensic team flew back to Rwanda. This time, they planned to exhume a site eighty miles west of Kibuye, in the Rwandan capitol of Kigali. Locals had reported to Tribunal investigators that bodies were located in and near a latrine pit at the Amgar Garage, in one of Kigali's business districts. The search for bodies was initially a disappointment. Upon arriving at the scene, they were greeted by a lot filled with trash and rusted out car and truck bodies. After two days of lowering Haglund and Pierre Heuts, a Dutch Tribunal investigator, into the eight-meter deep latrine shaft—a working latrine, no less—they turned up only a handful of skeletons, and no partially decomposed sets of remains for PHR's pathologists to examine. The next day, though, tribunal investigators called them back. A witness had pointed to a nearby hillside as the location of the graves. Very quickly, it was obvious that they were on the right track: skeletonized bodies lay on the surface, in the underbrush, and in shallow graves of three or four that dotted the entire hillside.⁷¹⁰ A public path ran close to the bottom of the hill, and it struck Koff how little interest passersby had in the forensic scientists' work. She wrote in her memoir, "*Everyone knows a genocide happened here.*"⁷¹¹

The number of bodies in each grave, and the fact that each body was fully skeletonized and therefore easier to remove from the ground, made the exhumations easier going than they had been in the huge grave at the Kibuye Church. But their location in Kigali, near the ICTR's Rwandan headquarters, made other aspects of the forensic team's work more complicated. After the exhuming

⁷⁰⁸ Statement of Bob Kirschner, DVD 1: [Rwanda Exhumation] Part 1 (site visit), 392-2-8, Video recordings of WITNESS, WITNESS Partners Raw Footage, Physicians for Human Rights, HU OSA, minute 21:40.

⁷⁰⁹ Statement of Bill Haglund, DVD 1: [Rwanda Exhumation] Part 1 (site visit), 392-2-8, Video recordings of WITNESS, WITNESS Partners Raw Footage, Physicians for Human Rights, HU OSA, minute 21:40.

⁷¹⁰ See description of exhumation in Koff, *The Bone Woman*, esp. Chapter 7.

⁷¹¹ Koff, *The Bone Woman*, 90.

and examining the skeletonized remains from the Amgar Garage site, the team held a second Clothing Day, where family members walked among rows of clothing spread on the grass, interacted with the forensic scientists, and made some possible identifications. Even as members of the forensic team considered Clothing Day a success, however, it was indicative of a brewing source of tension: the tribunal needed the forensic scientists to determine cause of death and approximate age and gender; scientists like Koff got much out of interacting with family members, and many considered it the purpose of their work. Meanwhile, Tribunal investigators were calling for speed. With one week left in Rwanda, investigators wanted the forensic team to exhume sites across the country, and, Koff writes, “didn’t understand why a week wasn’t enough time to complete one.”⁷¹² Instead, the forensic team conducted “assessments” of other sites across the country, recording their initial observations, including the size of the graves and the estimated numbers of bodies, in theory in preparation for future exhumations. But after the team left Rwanda on June 24, 1995, no further forensic exhumations would be done in that country.

These tensions arose both over the goals of the forensic investigations, and their methods. In her memoir, Koff writes, upon her first arrival in Kigali in December of 1995, Haglund briefed the forensic team. The anthropologist had impressed on them that their primary purpose in Rwanda was to determine age, sex, and cause of death, as well as to gather evidence of defensive wounds. Afterwards, Koff remembers, David Del Pino—a forensic anthropologist from Chile who had helped to found that country’s Forensic Anthropology Team—told them about an exhumation he conducted of skeletons that had been thrown down a two hundred meter deep mine shaft. It took each team member two hours to climb down and up the rope ladder, ferrying only the bones they could carry, as family members of the victims looked on, talking to the anthropologists and sharing their grief.⁷¹³

In her memoir, Koff moves from one story to the other in the space of one paragraph, not noting the inherent tension between them. Yet the two stories illustrate, in microcosm, the contrast between the performance of forensic investigations in the context of human rights work in the 1980s and the 1990s. In Argentina, Chile, and Guatemala, even as the scientists adhered to court-admissible evidence-gathering techniques, it quickly became clear to the forensic anthropology teams that their work would only feature in a small number of national criminal trials. Although they continued to collect forensic evidence in ways that would make it court admissible should there be trials,⁷¹⁴ the humanitarian-driven exhumations in Latin America in the 1980s were understood to be primarily for the families and communities of the missing and murdered. The forensic teams had asked permission from the families of the missing to exhume the graves—even in cases where they had court orders to dig, as they did in Guatemala, and needed no local permission—and then encouraged community members to observe the forensic work and interact with the scientists at the gravesite. “Such encounters,” Stover wrote years later, “were extremely important for the families of the missing.”⁷¹⁵

⁷¹² Koff, *The Bone Woman*, 99-101, 103.

⁷¹³ Koff, *The Bone Woman*, 28.

⁷¹⁴ Freddy Pecarelli in conversation with the author, September 2015.

⁷¹⁵ Stover and Shigekane, “The Missing in the Aftermath of War: When do the needs of families and international war crimes tribunals clash?”

Those same encounters were also important to many of the forensic scientists, often offering meaning and purpose that helped to counteract the physical difficulty and emotional toll of their work. At the exhumation in Kibuye, such interactions with families of the missing and murdered were few and far between, largely limited to a so-called “Clothing Day.” On Clothing Day, members of the forensic team laid out clothing found in the grave on the grassy lawn outside of the church for family members to walk through, in the hope they would recognize a piece of clothing—allowing the team to assign at least a presumptive identity to the body. Koff wrote in her memoir that Clothing Day, and the contact it brought with family and community members “restored some of my equilibrium” after weeks of emotionally and physically difficult forensic work.⁷¹⁶ Speaking with the sister of a man murdered at the Kibuye church, she wrote later, “I had a true sensation of being on the continuum of history for the Rwandans affected by the genocide. Working with these remains we are irretrievably part of the survivor’s process of healing.”⁷¹⁷

Yet such experiences were not to be the norm for forensic scientists who worked at gravesites under the auspices of the UN tribunals, in Rwanda and later in the former Yugoslavia. The families were no longer the primary recipients of information gathered from the grave; rather, the criminal tribunals were. And as Koff wrote in her memoirs, Haglund had made it clear to the forensic team at the outset that their goal was defined by the needs of the tribunal: to gather evidence from the graves that would be useful for trials, like the number of bodies, age, sex, and cause of death. This list left off what is often the primary concern of the families of the missing: the individual identity of each set of remains, and with it, a sense that the forensic teams shared their priority of finding people, not just facts.

The forensic evidence Haglund, Koff, and the PHR forensic team collected from the mass grave at the Kibuye Catholic Church featured in the first trial opened by the International Criminal Tribunal for Rwanda. On November 22, 1995—a month before Haglund and Koff arrived in Rwanda for the first time—Clement Kayeshima had been charged with Genocide and Crimes Against Humanity for his involvement in the April 17, 1994 massacre at the Catholic Church and Home St. Jean, in Kibuye *Prefecture*, where he served as Prefect.⁷¹⁸ Bill Haglund and Nizam Peerwani, a forensic pathologist and the Medical Examiner for four counties in Texas, testified before the court about the forensic evidence they retrieved from the grave at the Kibuye Catholic Church. Between the large grave the team exhumed and skeletons they found on the surface of the surrounding hillsides—people who tried to hide or run but were caught, their bodies left where they fell—the scientists told the court they had examined thousands of skeletons from the Church complex. Based on the forensic experts’ testimony, the Tribunal’s judges accepted that many of the victims were elderly men, women, and young children: clearly not combatants. Identity cards found

⁷¹⁶ Koff, *The Bone Woman*, 69.

⁷¹⁷ Koff, *The Bone Woman*, 71.

⁷¹⁸ Kayeshima was charged in conjunction with Obed Ruzindana, a wealthy and powerful figure in Kibuye *Prefecture*. The charges against the men also included conspiracy to commit genocide and a violation of Article 3 Common to the Geneva Conventions, and involved two other alleged massacres: one beginning on April 14, 1994, at the Church in Mubuga, where thousands of Tutsis were killed over the course of several days; and near daily massacres in the area of Bisesero in Kibuye *Prefecture*, lasting from early April 1994 until the end of June and resulted in thousands dead. See *Prosecutor v. Clement Kayishema and Obed Ruzindana* (Trial Judgment), May 21, 1999, International Criminal Tribunal for Rwanda, sections 1.2-1.3.

in the grave showed that they were all Tutsis.⁷¹⁹ And, Haglund and Peerwani told the court, these Tutsi civilians died violently. As an example, Haglund described the remains of a fifty-year-old man whose fibula, lower leg, was fully severed by a machete-like object, a blow that would have cut his Achilles tendon in two as well; “all of the soft tissue from the right side of the neck toward the back,” Haglund went on, “would have been cut through.” The man’s shoulder blade, too, had received a blow from a sharp object. The confluence of injuries, the forensic anthropologist testified, suggested the man was under attack, presenting different body parts to his assailant in an attempt to protect himself.⁷²⁰

The effect of Haglund and Peerwani’s testimony and forensic reports is clear in the Kayeshima Judgment: based “primarily on the testimony of Dr. Haglund and Dr. Nizam Peerwani, Prosecution expert witnesses,” the judges write, “[...] the Prosecution has proved the facts alleged.”⁷²¹ Yet the positive impact of forensic investigations and forensic expert testimony was not so clear in the other ICTR trial that featured forensic evidence prominently. Georges Rutaganda, a prominent businessman in Rwanda’s capitol city of Kigali, was charged with genocide and crimes against humanity for his central role in orchestrating the Rwandan genocide. Haglund again traveled to Arusha to testify as an expert witness, this time on the forensic team’s findings from the Amgar Garage site, where he, Koff, and others had exhumed remains from shallow graves on the hillside in June 1995.

Rutaganda’s lawyers, however, called their own forensic expert witness to challenge Haglund. Kathleen Reichs, a forensic anthropologist best known for writing *Bones*—first a bestselling fictional series about an offbeat forensic anthropologist, which later became a hit procedural crime drama with a twelve year run on FOX—testified on behalf of Rutaganda’s defense team.⁷²² In her scathing testimony, Reichs critiqued Haglund’s exhumations at the Amgar Garage, calling both his team’s methods and their conclusions into question. Just as at Nuremberg, where lawyers and judges had to weigh two forensic accounts against each other, competing expert testimonies did forensics no favors: “firstly,” the Judgment in Rutaganda’s reads, “the Chamber, on the basis of the testimony by Dr. Kathleen Reich, a forensic anthropologist, called by the Defense as an expert witness, is not satisfied that the scientific method used by Professor Haglund is such as to allow the Chamber to rely on his findings in the determination of the case.”⁷²³ The Chamber also determined that the forensic evidence did not provide sufficient linkage evidence to connect Rutaganda to the bodies found on the hillside near the Kigali garage—the same problem that plagued the forensic evidence presented before the Australian War Crimes Tribunal at the Polyukhovich trial in 1991.

⁷¹⁹ *Prosecutor v. Clement Kayishema and Obed Ruzindana* (Trial Judgment), May 21, 1999, International Criminal Tribunal for Rwanda, para. 325.

⁷²⁰ *Prosecutor v. Clement Kayishema and Obed Ruzindana* (Trial Judgment), May 21, 1999, International Criminal Tribunal for Rwanda, para. 326.

⁷²¹ *Prosecutor v. Clement Kayishema and Obed Ruzindana* (Trial Judgment), May 21, 1999, International Criminal Tribunal for Rwanda, para. 353.

⁷²² Interestingly, Kathy Reichs’ personal website states on the “About Kathy” page, “Dr. Reichs has travelled to Rwanda to testify at the UN Tribunal on Genocide,” misstating the name of the ICTR and failing to mention that she testified in defense of Rutaganda, who was convicted of Genocide, Crimes against Humanity, and murder, and sentenced to life imprisonment. See, “About Kathy,” www.kathyreichs.com.

⁷²³ *Prosecutor v. Georges Anderson Nderubumwe Rutaganda* (Trial Judgment), December 6, 1999, International Criminal Tribunal for Rwanda, para. 257.

“Consequently,” Rutaganda’s Judgment reads, “the Chamber holds that the findings of the said expert witnesses should not be admitted in the instant case.”⁷²⁴ Both of these challenges to Haglund’s forensic evidence in the ICTR courtroom—conflicts between forensic scientists over methods, and a Chamber unconvinced that the material evidence linked the accused to the crime—would reappear in the context of the former Yugoslavia. But they spelled the end of the forensic work in Rwanda.

Ultimately, the Rwandan forensic effort was smaller than the one that coalesced in the former Yugoslavia around the same time. The Kibuye Church grave and the Amgar Garage site in Kigali were the only two forensic exhumations done for the ICTR—although Haglund and others from PHR’s forensic team conducted assessments and photographic missions across the country—and Haglund only testified in the Kayishema and Rutaganda cases. Sociologist Adam Rosenblatt posits, as well as practical considerations—such as the sheer number of those killed, more than twenty times that in Bosnia, and the widespread displacement of survivors to neighboring countries—complicated the prospect of taking DNA samples and identifying bodies individually.⁷²⁵ In theory, DNA testing could supply at least some of the names of some of the skeletons—although of course with the number of people killed in Rwanda, a regime of DNA testing would require enormous, unprecedented numbers of blood samples be drawn and analyzed—but scholars have noted that there has been little official interest or public demand for such identifications.⁷²⁶ Instead, Rwandans have memorialized massacre sites in other ways, one of which is constructing memorials that use the physical remains of the individual dead as a representation of the genocide as a whole.

Today in Rwanda, memorial museums have been set up at various places around the country where large numbers of people were killed, or bodies were buried. These museums showcase the bodies—now skeletonized—of the dead in a way that strikes the western eye as both radically visible and startlingly anonymous. The predominant way of memorializing the genocide in Rwanda’s museums has been to preserve and display bones and human remains at massacre sites around the country; in one memorial, thousands of corpses were covered in powdered lime, a mummifying agent, leaving them frozen in time.⁷²⁷ Others are characterized by “shelves and shelves of skulls and bones,”⁷²⁸ in the words of journalist Andrew Blum. The bones are displayed communally, as piles of bones or anonymous skeletons. The faint smell of decay has remained on the air in these museums for many years, as if visitors had found themselves in a morgue.⁷²⁹

⁷²⁴ *Prosecutor v. Georges Anderson Nderubumwe Rutaganda* (Trial Judgment), December 6, 1999, International Criminal Tribunal for Rwanda, para. 258.

⁷²⁵ Rosenblatt also posits that racial biases on the part of the international community may also have played a role. Rosenblatt observes that the forensic efforts expended on “light skinned bodies in countries considered part of the west” such as Bosnia is all out of proportion with the effort put in to find and identify dark-skinned bodies in the developing world and in non-western countries. Forensic scientists I spoke to considered this suggestion to be speculative. Perhaps more work on this question is needed to determine whether Rosenblatt’s suggestive Rosenblatt, *Digging for the Disappeared*, 29.

⁷²⁶ Sara Guyer, “Rwanda’s Bones,” 160; Koff, *The Bone Woman*, 89.

⁷²⁷ Sara Guyer, “Rwanda’s Bones,” 157.

⁷²⁸ Andrew Blum, “Searching for Answers, and Discovering That There Are None,” *New York Times*, May 5, 2005.

⁷²⁹ For an impression of bodies-as-memorials, see Gourevitch, *We Wish to Inform You That Tomorrow We Will Be Killed with our Families: Stories from Rwanda*, 16.

Yet the spaces lack the scientific and investigative qualities a morgue would have. In 2000, a Rwandan Ministry of Justice official stated publicly that he was “not very interested in the preservation of forensic evidence.” To this official, eyewitness testimony spoke more powerfully; the words themselves are a memorial of Rwanda’s genocide, and require no further scientific or material explication.⁷³⁰ Anthropologist Richard Wilson’s work offers support for the Rwandan official’s position. Wilson similarly observes that a positivist focus on forensic investigation and scientific facts can distract from the experiential truth of systemic violence. In directing its attention to numbers of bodies found and injuries documented from their bones—extreme events—he argues that South Africa’s Truth and Reconciliation Commission downplayed or ignored altogether the mundane, every day enforcement of apartheid and the systematic violence that became routine practice under that regime.⁷³¹ “Human Rights methods of investigation” such as mass grave exhumations, he argues, “if not accompanied by more historical forms of documentation and analysis, can be a poor avenue for accessing experiential dimensions of violence.”⁷³²

Some scholars have pointed to the possibility that they serve a more explicitly political, even sinister, purpose: not only memorializing the genocide but also glorifying the ideologies that made it possible, or consolidate now-President Paul Kagame’s hold on political power.⁷³³ Anthropologist Susan Cook writes that these memorials are less concerned with producing scientific evidence as they are with forcing the visitor into a very real, immediate experience of memory⁷³⁴—one that, from the perspective of Rwanda’s now-Tutsi controlled governmental regime, may be designed to warn visitors of the future possibility of more death, corpses, and bones.⁷³⁵ In some cases, this focus on bodies of the dead rather than the historical and lived experiences of the living is intentional, a tool used by authorities in post-conflict situations to reassert a sense of order and control, and to define—or manipulate—the parameters of historical memory.⁷³⁶ In caring for the bodies of dead citizens, and through them their living relatives, the authorities demonstrate competence and judicial control, reestablishing a sense of authority over their populations: Wilson writes, they can say, “potential war criminals, beware!”⁷³⁷ Understood thusly, exhumations can serve a far more functional purpose for the state than they do a humanitarian or even a historical one.

The Rwandan exhumations exposed various tensions over the purpose of forensic exhumations and their desired results: in particular, tensions between the legal needs of the tribunal, the political needs of the government, the various needs of the families, and the documentary needs of history. The forensic scientists often found themselves stuck in the middle, forced to reckon with their place both *vis a vis* the survivor communities and families, and in the historical and legal process of documentation. In February, as the forensic team was packing up the gravesite at the church in Kibuye, Stefan Schmitt, one of the founding members of Guatemala’s forensic program, looked into the WITNESS Handycam and contemplated the meaning of what the forensic teams were doing,

⁷³⁰ Cook, “The Politics of Preservation in Rwanda,” 303.

⁷³¹ Wilson, *The Politics of Truth and Reconciliation in South Africa*, 34.

⁷³² Wilson, *The Politics of Truth and Reconciliation in South Africa*, 33.

⁷³³ See Timothy Longman, *Christianity and Genocide in Rwanda*, 303-324.

⁷³⁴ Cook, “The Politics of Preservation in Rwanda,” 305.

⁷³⁵ Guyer, “Rwanda’s Bones,” 161.

⁷³⁶ Wagner, *To Know Where He Lies*, 249.

⁷³⁷ Wagner, *To Know Where He Lies*, 253.

and what their place was in the context of the Rwandan genocide and its aftermath. “Forensic science is very important—and to forensic scientists of course it’s their whole world—but the truth is that on most missions it’s only like 10 or 15 percent of the whole story.” For Schmitt, and like many of the families of the dead, collecting evidence to answer the legal question of innocent or guilty was not the whole story. “There’s a certain kind of justice that I would call ‘moral justice’ or ‘eternal justice,’” he went on, “where it’s necessary to write the story.” Bones were one piece, but documents were another; the analyses of historians, anthropologists, political scientists, and economists were another. “Telling the story points a finger,” Schmitt said.⁷³⁸

As he sat the side of the Kibuye Church grave in February 1995, Bill Haglund had lamented, “Rwanda is such a small country, and it has so many graves.”⁷³⁹ The limited forensic investigations done in the central African nation had barely scratched the surface of the ground, and yet everywhere they dug it seemed they turned up bodies. Yet Rwanda it was not the only country for which this was true. War and ethnic violence still raged across the fracture lines of the former Yugoslavia, leaving that fractured region dotted with graves of its own.

III. Vukovar, Croatia, 1996

THE UN COMMISSION of Experts arranged for a forensic team from PHR to return to Vukovar in October 1993 with the intention of fully exhuming the grave. But shortly after they arrived, threats of violence from locals, led by the Vukovar City Council, forced them to, as Snow put it in his testimony before the ICTY, “undeploy.” The UN security teams did not think they would be able to guarantee the scientists’ safety in the face of local violence. “So we pulled up stakes,” Snow said.⁷⁴⁰ The stakes would remain pulled up for nearly three years, until the late summer of 1996, when forensic teams were finally able to return to the Ovcara Farm. Bill Haglund, who still served as the United Nations’ Senior Forensic Advisor, led the forensic team as he had in Rwanda. In the latter half of 1996, Haglund—along with Andrew Thomson, a doctor from New Zealand, and in cooperation with Physicians for Human Rights—coordinated the work of ninety forensic scientists from around the world in a number of forensic investigations throughout Croatia and Bosnia, an operation that Eric Stover would later call “the largest international forensic investigation of war crimes—or possibly of any crime—in history.”⁷⁴¹

When Clea Koff arrived at the gravesite outside of Vukovar in the last days of August, 1996, she was struck by the condition of the site. “We’d come a long way from Kibuye, where we had fashioned cut tree branches into a simple frame over which we stretched multiple thin tarps.”⁷⁴² The

⁷³⁸ Stefan Schmitt, “DVD 1: [Rwanda Exhumation] Part 1 (site visit),” 392-2-8: Video recordings of WITNESS, WITNESS Partners Raw Footage, Physicians for Human Rights, HU OSA.

⁷³⁹ Bill Haglund, “DVD 1: [Rwanda Exhumation] Part 1 (site visit),” 392-2-8: Video recordings of WITNESS, WITNESS Partners Raw Footage, Physicians for Human Rights, HU OSA.

⁷⁴⁰ *Prosecutor v. Mrkšić et al.* (Trial transcript), March 17, 1998, International Criminal Tribunal for the former Yugoslavia, 1564-1565..

⁷⁴¹ Stover and Peress, *The Graves*, 93.

⁷⁴² Koff, *The Bone Woman*, 178.

Ovcara Farm, in contrast, was neatly kept, with a gravel courtyard, white picket fencing, and a large, white UN tent that served as a mess hall, complete with a plank floor that reminded Koff of a “country dancehall.”⁷⁴³ It was only later that she found out the truth: that everything at the gravesite was secondhand, in its last stage of life. “Apparently,” she wrote in her memoir, “the UN planned to burn everything we used—including the \$6,000 dancehall tent in which we ate lunch—because they believed no one would use them after they had been at a grave site.”⁷⁴⁴

When Koff arrived, the grave itself was a non-descript plot of flat dirt, a fact that infuriated Haglund: the UN demining team had done such a thorough job checking the area for booby traps and other explosives that they had, in the process, wiped out all physical evidence on the surface of the grave.⁷⁴⁵ As they got to work, it quickly became obvious that water was going to be a problem, as it often is in a mass grave. Most days were punctuated by several bouts of rain, so the forensic scientists found themselves continually having to jump out of the grave and cover its top with tarps in the mostly futile attempt to prevent it from becoming a mud pit. Conditions improved after General Jacques Klein, the UN administrator of the region including Vukovar, visited the grave and watched in horror as the forensic scientists slid in the mud around the partially decomposed bodies in the grave. Two days later, twenty Slovak engineers arrived with an enormous truckload of materials that they expertly constructed into a tent over the entirety of the grave. The tent allowed the scientists to continue working in the rain, and helped to mitigate its transformation into a mud pit.⁷⁴⁶

Protected from the rain, the forensic scientists dug deeper into the grave, carefully shaving dirt off the top until they exposed the bodies that lay beneath. As they dug, it became ever clearer that the grave likely did contain the men who disappeared from the Vukovar Hospital in November of 1991. Koff found several corpses still wearing the white clogs characteristic of European medical staff; a man with a cast on his arm; another with a catheter tube at his feet.⁷⁴⁷ While Haglund and Koff, and the PHR forensic team worked at the gravesite, Clyde Snow had been working to set up an autopsy facility in a university morgue in Zagreb.⁷⁴⁸ Once bodies were removed from the grave at the Ovcara Farm, they were placed in refrigerated trucks and driven to the Zagreb morgue, where Snow and a team of pathologists and forensic anthropologists received and examined the bodies. In these examinations, they sought two sets of information. One set included evidence for the ICTY’s prosecutions: the approximate age, gender, and cause of death of each body found, as well as any information about his or her—mostly, in this case, his—ethnicity. The second kind of information was far more difficult to obtain, but it was precisely the kind of proof the Mothers sought: the identity of the men, whether or not the bodies the grave contained were those of their sons.⁷⁴⁹

In order to facilitate the identification of the more than two hundred bodies removed from the grave at the Ovcara Farm, Snow had to lean on the experience that got him into mass grave

⁷⁴³ Koff, *The Bone Woman*, 167.

⁷⁴⁴ Koff, *The Bone Woman*, 169.

⁷⁴⁵ Koff, *The Bone Woman*, 168.

⁷⁴⁶ Koff, *The Bone Woman*, 178.

⁷⁴⁷ Koff, *The Bone Woman*, 180.

⁷⁴⁸ Stover and Peress, *The Graves*, 162.

⁷⁴⁹ *Prosecutor v. Docmanovic* (Trial transcript), March 28, 1998, International Criminal Tribunal for the former Yugoslavia, 1566.

exhumations and identifications in the first place: the 1971 crash of American Airlines flight 191 on the tarmac at O'Hare Airport, where Snow and the forensic team developed an ad hoc database to cross reference characteristics of the skeletons found in the wreckage with medical records provided by the families, like x-rays and dental records. The Chicago plane crash had served as a perfect testing ground for such a system: unlike a massacre, where the identities of those killed may be unknown, the flight manifest contained a complete list of passengers; identifying bodies was then a relatively simple matter of matching, trial and error. Snow and the Latin American forensic teams had also employed databases to pursue identifications in Argentina, Guatemala, and Chile. In the former Yugoslavia, Snow had been working with Dr. Kostovic, a forensic scientist at the University of Zagreb, since the earliest days of the UN Commission of Experts in 1992 to develop a system for identifying and repatriating bodies from the Serbo-Croatian conflict.⁷⁵⁰ At that point, Snow testified before the ICTY, Kostovic “had a little more than lists of names and perhaps birth dates of people who had disappeared and had not been accounted for in the Vukovar area at the time.” Kostovic and his staff had received a list from the Croatian Red Cross—the organization that had been in charge of the Vukovar Hospital when the surrounding city fell to the Serbs in 1992—of some three hundred names, people suspected to have gone missing when the Serbs took control of the hospital.⁷⁵¹

Over the next four years, Snow worked with investigators, first from the Commission of Experts and then from the ICTY, to collect, as he put it in his courtroom testimony “the kind of information we would need to establish these identifications,” not just their names and ages, but details from their medical and dental records that would show up on the skeleton, such as handedness, old injuries, or dental work. As they examined skeletons in the makeshift morgue in Zagreb, the forensic anthropologists could enter similar information gleaned from each set of bones. “We set it up with a search engine,” Snow explained in court, so that if the pathologists found a skeleton with a something distinctive, “an unusual injury or a prosthetic device,” they could run it through their database and create “a printout of the people who would fall within that category, perhaps half a dozen names.” Then, using the medical records from each of those preliminary matches, the pathologists and anthropologists could do a more detailed examination of the body “to pinpoint,” as Snow put it, “the person this most closely resembled, thereby making what we were classifying as a tentative identification.” Based on their experience in other mass grave contexts, the forensic anthropologist explained in his testimony, this method could show with about 95 percent probability that the remains belonged to the person in question.⁷⁵² Ninety-five percent may be good betting odds, but in identifications of the dead, they count only, as Snow made clear in his testimony at the ICTY, as “tentative identifications”—matches still too uncertain to form the basis of repatriations or returning remains to families. And as painstaking as the process was, turning those tentative identifications into positive ones took substantially more time and expertise. In many cases,

⁷⁵⁰ *Prosecutor v. Docmanovic* (Trial transcript), March 28, 1998, International Criminal Tribunal for the former Yugoslavia, 1566.

⁷⁵¹ *Prosecutor v. Docmanovic* (Trial transcript), March 28, 1998, International Criminal Tribunal for the former Yugoslavia, 1567.

⁷⁵² *Prosecutor v. Docmanovic* (Trial transcript), March 28, 1998, International Criminal Tribunal for the former Yugoslavia, 1568.

it simply was not possible. Laurie Vollen, director of PHR's antemortem database project, was in charge of interviewing family members about their loved ones' medical histories, distinguishing characteristics, and personal belongings, as well as collecting medical and dental records. In 1996, she told Stover that she believed most of the bodies would never be identified. "We are going to have a bunch of people that are males between the ages of 18 and 40 who will have nothing distinguishing in terms of their skeletal system, their dental appearance, and their clothing. Most of this group will probably be unidentifiable."⁷⁵³

The final results of the ICTY's trials against the men dubbed by the media as "the Vukovar three"—Mile Mrkšić, Vesilin Šljivančanin, and Miroslav Radić—and against the former Mayor of Vukovar, Slavko Dokmanović. The results were decisive in two cases: two-thirds of the Vukovar three received prison sentences, twenty years for Mrkšić and ten years for Šljivančanin. But Radić was acquitted, and a verdict was never issued in Dokmanović's trial because the former mayor hung himself just days before a judgment would have been handed down. The results of the forensic investigation was equally mixed. Ultimately, forensic teams commissioned by the ICTY fully exhumed the mass grave on the edge of the Ovčara Farm, removing over 200 bodies and transferring them to Zagreb for further examination and for entry into the database. The exhumation turned up considerable material evidence that suggested these men were indeed the missing from the Vukovar Hospital, including bandaged wounds, and corpses found wearing hospital clothing. Most of the victims had gunshot wounds; many of them multiple gunshot wounds. By March 1998, Snow testified before the ICTY, the pathologists and anthropologists in Zagreb had been able to positively identify fifty-one of the two hundred bodies.⁷⁵⁴

These identifications were among the earliest iterations in a of a twenty-year-long effort to solve what journalist Christopher Jennings has called Bosnia's "forensic puzzle," an effort that would ultimately involve hundreds of forensic scientists, thousands of graves exhumed, and tens of thousands of sets of human remains: since there are 206 bones in the human body, as Jennings writes, Bosnia's lush forests and green hillsides concealed an estimated million bones. The even greener, lusher hillsides of Rwanda held even more: nearly a million sets of remains, around 200 million bones. The forensic effort to exhume them on behalf of international criminal tribunals also revealed the power forensic evidence could wield as evidence in courtrooms; not just its value for the humanitarian and commemoration needs of the families, or for the material documentation of history. These two parallel contributions of forensic evidence explain the enthusiasm for its sustained use in international criminal tribunals' investigations; just as the tensions between them would come to define the experiences of the forensic scientists who participated in the exhumations. Yet the technological problem—the difficulty, and in many cases, impossibility of securing positive identifications using traditional forensic methods—was quickly to be a thing of the past. 1996, the year forensic teams completed the Ovčara Farm gravesite, marked a sea change in forensic identifications, and ushered in the use of a new technological advancement that could be used to

⁷⁵³ Stover and Peress, *The Graves*, 175.

⁷⁵⁴ *Prosecutor v. Docmanovic* (Trial transcript), March 28, 1998, International Criminal Tribunal for the former Yugoslavia, 1571.

assign names and families to sets of human remains: the ability to extract DNA from the bones of the dead, and then to compare it to DNA found in the blood of the living.

CONCLUSION

Srebrenica, 1995-1996



ON THE NINTH of August 1995, a young American journalist named David Rodhe drove into Bosnian Serb controlled territory. Rodhe, along with his Serb translator and a driver, had permission from the Bosnian Serbs to drive straight to Banja Luka and to Pale, the Bosnian Serbs' self-declared capitol. There, they were told they could interview ethnic Serbs, refugees from violent clashes in Croatia. The Bosnian Serbs promised a military escort to accompany the journalist, but it never materialized. Instead, Rodhe and his driver got sketchy directions that sent them in entirely the wrong direction. The driver sped north and east, sixty miles too far into Bosnian Serb territory, in the direction of the towns of Nova Kasaba and Bratunac.

Tension hung so thickly that the Bosnian air seemed to crackle with electricity. The war was in its late days, and the international community was beginning to apply pressure on Serbia to come to a peace agreement. Yet the Serbs fought on in Bosnia. As they drove, trucks of soldiers swung wide to pass the car. The sound of machine gun fire punctuated the silence, sometimes close enough to make Rodhe, a seasoned combat reporter, instinctively duck and cover. He finally realized that soldiers were shooting into the air in celebration, pointing their guns at the sky and letting a few rounds rip.⁷⁵⁵ A month earlier, the UN-designated Safe Area of Srebrenica had fallen to a Bosnian Serb onslaught led by an unapologetic Serb nationalist, General Ratko Mladic, and with it more than 40,000 Bosnian Muslim refugees had been transferred to Bosnian Serb control. In one of the war's final paroxysms of violence, Mladic's troops executed all of the men and boys, some 8,000 of them, and buried their bodies into mass graves. The dead were hardly gone, though. US spy plane photographs that surfaced less than a month later revealed the locations of the graves, and the Serbs panicked. Front-end loaders and excavators came back to the pits to dig up the now-putrid, partially decomposed mélange of earth and bodies. They loaded the whole of it onto trucks, and reburied it in new pits across Bosnia. These secondary graves—and tertiary, and so on, because many of the graves were moved a second, third, or fourth time—contained not whole bodies, but rather pieces of bodies, an enormous forensic jigsaw puzzle in which the mortal remains of one individual might have ended up in two, three, or six different graves.

Rodhe pulled a sheet of paper out of his pocket. He studied the fuzzy, pixelated, black and white photo, a faxed copy of one of the US spy plane pictures. On the map, certain sections were marked with highlighter: suspected graves.⁷⁵⁶ Circles on the photograph marked areas of disturbed earth and a bird's eye view of heavy machinery like backhoes and front-end loaders, equipment used to dig mass graves. Rodhe realized with a start that their wrong turn had put them near the area shown in the photograph.⁷⁵⁷ The journalist asked his driver to pull off the main highway, onto a dirt road where the car was hidden from view. The driver cut the engine while the American got out, alternately studying the surrounding landscape and the picture he held in his hand like a gold spectator with a treasure map. He left his translator and driver in the car, and walked toward the Jadran River, which went its way through the area where the photograph suggested mass graves could be found. About 50 feet from the road, Rodhe found a large green ammunition box, now empty. Nearby, some papers lay in the grass; one, a primary school diploma, had been awarded to a Muslim boy over a decade earlier in a town near Srebrenica. Ignoring the too-close-for-comfort sound of gunshots and the ever-present threat of landmines, the journalist slipped down a steep embankment toward the riverbed. A square of freshly dug earth, about 20x20 feet wide, caught his eye. He walked toward the dirt, and noticed something else: a human femur and tibia, bleached white from the sun, stuck out of the dirt.⁷⁵⁸

⁷⁵⁵ David Rodhe, "How a Serb Massacre was Exposed," *Christian Science Monitor*, August 25, 1995.

⁷⁵⁶ Peter Grier, "Bosnian Serb Officials Hold and Interrogate Monitor Reporter," *Christian Science Monitor*, November 20, 1995.

⁷⁵⁷ Rodhe, *Endgame*, Preface.

⁷⁵⁸ David Rodhe, "How a Serb Massacre was Exposed," *Christian Science Monitor*, August 25, 1995.

Rodhe wrote an article for the *Christian Science Monitor* that was published nine days later, under the headline, “Evidence Indicates Bosnia Massacre.”⁷⁵⁹ The journalist wanted to be sure, though. Leaving only an email for his editor and notice with friends in Sarajevo, Rodhe snuck back into Bosnian Serb territory in late October, this time without any permission. He took his old Bosnian Serb press pass and smudged out the ink, changing the date from 19/12/94 to 29/10/95. In a rented red Citroen, he drove out of Sarajevo, into Serb territory, using the forged press pass to bluff his way through military checkpoints on the hundred-mile drive back to the area around Srebrenica.⁷⁶⁰ This time, Rodhe had more and better information, pinpointed locations provided by sources in the US intelligence community. In the course of three hours, the journalist found four separate mass gravesites, each marked by identifying documents bearing Muslim names, Muslim prayer beads, civilian clothing, eyeglasses, canes, and crutches. He also found scattered human remains. Rodhe was preparing to photograph a human skeleton when he was arrested, charged with espionage—which carried, he was told, a sentence of ten years to death—and thrown into jail.⁷⁶¹

* * *

RODHE WOULD ULTIMATELY be lucky. He was held in Bosnian Serb detention for ten days, and subjected to harsh interrogations, during which his captors tried to get Rodhe to admit he was not a journalist at all, but an American spy.⁷⁶² He was released thanks to the efforts of his colleagues and editors at the *Christian Science Monitor*, who successfully lobbied the American officials taking part in peace talks in Dayton, Ohio—where Serb leader Slobodan Milosevic was also present—to put pressure on Serb authorities. They did, going so far as to threaten Milosevic that the Americans would suspend peace talks while the journalist remained in custody. Faced with losing the last remnants of support from the international community, Milosevic complied, and Rodhe was released, transferred first from his Bosnian Serb captors to Milosevic’s Serb troops, and then to American authorities.⁷⁶³

In the course of his detention, the Bosnian Serbs confiscated all of Rodhe’s notes and photographs from the gravesites he had visited prior to his capture. But even without his records, the memory of what he had seen was still fresh in his mind, and his writings recieved considerable coverage on the pages of the *Monitor*. Rodhe wrote his first article on Srebrenica a week after his release.⁷⁶⁴ Peter Grier, another *Monitor* staff writer, recorded a four-hour monologue of Rodhe recounting his experiences, and wrote a three part story for the paper, the first of which ran less than ten days after Rodhe’s release.⁷⁶⁵ Other major papers picked up the story, and Rodhe, with his story

⁷⁵⁹ David Rodhe, “Evidence Indicates Bosnia Massacre,” *Christian Science Monitor*. August 18, 1995.

⁷⁶⁰ Peter Grier, “Into Bosnia’s Killing Fields,” *Christian Science Monitor*. November 17, 1995.

⁷⁶¹ David Rodhe, “Graves Found that Confirm Bosnia Massacre,” *Christian Science Monitor*. November 16, 1995.

⁷⁶² Peter Grier, “Bosnian Serb Officials Hold and Interrogate Monitor Reporter,” *Christian Science Monitor*, November 20, 1995.

⁷⁶³ Holbrooke, *To End A War*, 242-243, 254-257.

⁷⁶⁴ David Rodhe, “Graves Found that Confirm Bosnia Massacre,” *Christian Science Monitor*, November 16, 1995.

⁷⁶⁵ Part I: Peter Grier, “Into Bosnia’s Killing Fields,” *Christian Science Monitor*. November 17, 1995; Part II: Peter Grier, “Bosnian Serb Officials Hold and Interrogate Monitor Reporter,” *Christian Science Monitor*, November 20, 1995; Part III:

of forging documents, capture, imprisonment, and release—which came at the risk of jeopardizing the Dayton peace talks—made him something of a celebrity. The journalist, Grier wrote, had become the story.⁷⁶⁶

Yet even as Rodhe became a story himself, the story that he went to Bosnia seeking also became a story. What Rodhe found in Nova Kasaba and Bratunac was physical evidence of the first genocide on European soil since the Holocaust. The graves he found, and hundreds more across Bosnia and the other countries of the former Yugoslavia, would be the focus of investigators, lawyers, forensic experts, and families for the next twenty years and beyond. And the bones those graves contained were put to a varied set of uses. Not only would they provide a tangible, physical record of history for the families and communities affected by violence, they would be put to extensive use in the international war crimes courtroom—helping to secure the world’s first conviction for genocide.

* * *

TWO WEEKS BEFORE Rodhe’s first covert trip into Serb-controlled Bosnia, on August 10, 1995, the 15-member United Nations Security Council met for an emergency, closed-door session. Madeleine Albright, the chief US delegate to the Council, clicked through eight photographs, each blown up on a projector screen. The pictures had been taken by an American U-2 spy plane taken just a month earlier, between July 11—just after the Bosnian Serb Army overran the Safe Area of Srebrenica—and July 13 or 14. The July 11 photos showed as many as 600 people crowded into a soccer field near Nova Kasaba; the pictures taken just days later showed instead wide patches of disturbed dirt, and tracks left by heavy machinery: traces left in the soil by digging and refilling graves. One member of the Council told *New York Times* reporter Barbara Crossette that the images were “disturbing” and “quite persuasive.” After the meeting, Albright told the press that the photographs made “a compelling case that there were wide-scale atrocities committed in the area against defenseless civilians, away from the battlefield area.”⁷⁶⁷ History has borne out Albright’s words: the fall of Srebrenica on July 11, 1995 did bring with it wide-scale atrocities.⁷⁶⁸

Peter Grier, “Quest Launched for Reporter’s Freedom as He Paces Behind Bars in Bosnian Serb Jail,” *Christian Science Monitor*, November 21, 1995.

⁷⁶⁶ Peter Grier, “Into Bosnia’s Killing Fields,” *Christian Science Monitor*, November 17, 1995.

⁷⁶⁷ Barbara Crossette, “The US Seeks to Prove Mass Killings,” *New York Times*, August 11, 1995.

⁷⁶⁸ Much has been written by journalists and participants about the Bosnian war in particular, and the fall of Srebrenica in particular. The best of those written by journalists are Rodhe’s *Endgame*, and Neuffer, *The Key to My Neighbor’s House*. Memoirs abound, including peace negotiators Owen’s *Balkan Odyssey*; see also Holbrooke, *To End A War*. The government of the Netherlands—whose soldiers were serving as the UN Protection Force troops commissioned with guarding the Safe Area—conducted its own investigation into Srebrenica’s fall; the resulting 3700-page report is perhaps the most thorough look at the events leading up to the massacres, and so implicated the Dutch government that the entire cabinet resigned when it was published in April 2002. (“Srebrenica, a ‘safe’ area: Reconstruction, background, consequences and analyses of the fall of a safe are.” NIOD Institute for War-, Holocaust- and Genocide Studies, 2002. URL: http://publications.niod.knaw.nl/publications/srebrenicareportniod_en.pdf . Accessed: April 2, 2016.) Yet as a field of scholarly, and particularly of historical study, it is still emerging. The first attempt at a history of Srebrenica—both of the events leading up to the battle and takeover of the Safe Area itself, and the international community’s lack of response—is Honig and Both’s *Srebrenica*. This remains the most detailed account other than the Dutch government

The so-called Safe Area of Srebrenica was located in a mountain valley on the banks of the Drina River in the eastern part of Bosnia, near the border with Serbia. Beginning in April 1992, the Bosnian Serb army laid siege to the mostly-Muslim Srebrenica—the 1991 Yugoslavia-wide census determined that 73 percent of the town’s population was Muslim; the other 25 percent was Serb. They did not succeed in capturing the town itself, but the Bosnian Serb troops managed to create a blockade around the town, cutting it off completely from Bosnian Muslim-held territory. Muslims from the surrounding area poured into Srebrenica, swelling the size of the town from 5,000 to more than 25,000. The blockade meant that supplies were limited, and the population teetered on the brink of starvation.⁷⁶⁹ Relief convoys that reached Srebrenica in November 1992 were horrified by the conditions they found; returning UN officials reported observing amputations done on wounded Bosnian Muslim soldiers without the use of anesthetics.⁷⁷⁰ By January 1993, the numbers had more than doubled to fifty or sixty thousand people, the vast majority of them Bosnian Muslims who had come to Srebrenica seeking refuge. Surrounded on all sides by Serb-held territory, Srebrenica and its refugees were isolated from the Bosnian government territory to the west, vulnerable to attack, and in desperate need of basic supplies such as food and medicine.⁷⁷¹

Foreign journalists carried reports of the increasingly critical situation in Srebrenica in the first months of 1993, inspiring the US government to drop more than 27 tons of food and other relief supplies from airplanes into the region.⁷⁷² These stories also inspired the Commander of the UN Protection Force troops in Bosnia and Herzegovina, a French General named Philippe Morillon, to make a visit of his own to the region in early March 1993. Morillon arrived to find what the UN’s report on Srebrenica would later call an “atmosphere of panic”: food was in short supply; refugees were crowded into every available building, including schools and office buildings; and the sanitary conditions of the enclave were abysmal.⁷⁷³ The General had initially planned to keep his visit to the enclave short and perfunctory—simply surveying the situation for himself and reassuring the population that the international community would send humanitarian assistance in due course—but the population of Srebrenica had other plans for his visit. When Morillon got into his armored car to leave the town on March 13, women suddenly surrounded the vehicle, holding signs that implored

report, and is used as the authoritative source in this section. Others focus on the war crimes trials themselves. See, e.g. Norman Cigar, *Indictment at The Hague*.

⁷⁶⁹ “Bosnia-Herzegovina: The Missing of Srebrenica,” Amnesty International, September 1995.

⁷⁷⁰ John F. Burns, “U.N. to Ask NATO to Airdrop Supplies for Bosnians,” *New York Times*, Jan 12, 1993. Similar conditions were observed by aid convoys the following January to the enclave of Zepa, where UN officials reported 36 amputations done with a carpenter’s saw, and without pain medication. Contrary to Muslim religious practices, adults were given alcohol to dull the pain of the operations; children, however, endured them without. See John F. Burns, “Primitive Bosnian Clinic Appalls Convoy,” *New York Times*, Jan 19, 1993.

⁷⁷¹ “Report of the Secretary-General pursuant to General Assembly resolution 53/35: The fall of Srebrenica,” 15 November 15, 1999, paras. 33-38. The ICTY’s trial chambers considered this report authoritative for the events leading up to the establishment of the Safe Area of Srebrenica, and the enclave’s fall (see *Prosecutor v. Radislav Krstic* (Trial Judgment), August 2, 2001, International Criminal Tribunal for the former Yugoslavia, 5, footnote 11.)

⁷⁷² “Airdrop in Bosnia is reported to hit mark,” *New York Times*, March 7, 1993. For coverage of the increasingly dire circumstances in the eastern Bosnian enclaves of Srebrenica, Zepa, and Gorazde, see e.g. the near-daily articles written by embedded US journalists John F. Burns and Chuck Sudetic in the *New York Times* from January to March and April 1993.

⁷⁷³ “Report of the Secretary-General pursuant to General Assembly resolution 53/35: The fall of Srebrenica,” United Nations, November 15, 1999, para. 38.

the General not to leave “in the name of women and children.”⁷⁷⁴ Morillon, perhaps equal parts inspired by their pleas and cognizant that he would have to answer them if he hoped to leave Srebrenica without a disturbance, grabbed a megaphone and made a promise he had no authority to make. “You are now under the protection of the United Nations,” he yelled over their voices. “I will never abandon you.”⁷⁷⁵

On the 16th, General Morillon doubled down on his statements, announcing to the international community and press that he would personally remain in the besieged town until protections, relief, and plans to evacuate civilians were in place.⁷⁷⁶ Although France rallied behind their General as a hero, and as an example of French honor, UN Officials were angered by Morillon’s promise to the people of Srebrenica,⁷⁷⁷ which made humanitarian assistance in the enclave “a make-or-break issue for international forces.”⁷⁷⁸ From the perspective of many, the timing couldn’t have been worse: Bosnian, Serb, and Croat leaders had just gathered in New York to initiate negotiations over the Vance-Owen peace plan, which world leaders hoped could end the conflict.⁷⁷⁹ A commentator wrote in the French paper *L’Express*, “His ‘I am, therefore I stay,’ which does not lack panache, commits the entire international community to stand up to the Serbs who consider his presence there to be a challenge.”⁷⁸⁰ The Bosnian Serbs, indeed, saw Morillon’s presence as a threat, and demanded he leave before they would consider lifting the blockade around the enclave to allow through convoys of food and supplies.⁷⁸¹

The ire of the international community notwithstanding, the General’s stand did bring some relief: on March 22, 1995 Morillon negotiated with the Serbs to allow trucks carrying humanitarian aid into Srebrenica. The General personally led the slow-moving convoy through the snowy streets into the town, the first aid to reach the enclave in three years.⁷⁸² In the weeks that followed, the UN High Commission for Refugees successfully transported aid convoys carrying food and other supplies overland into the enclave. Evacuations of civilians also began, and although these were not without incident—several people were crushed to death in the rush to get on the UN trucks on March 29, and on March 31, several people died of exposure on the road to the Bosnian government-held town of Tuzla—by the end of April 1993, some eight or nine thousand people had been evacuated from Srebrenica.⁷⁸³

Yet the Bosnian Serbs’ willingness to allow UN trucks to transport Muslim refugees out of Srebrenica—and their more grudging tolerance of aid convoys entering the enclave—did not signal a more general cessation of hostilities. To the contrary, Serb attacks on the city escalated. In an

⁷⁷⁴ “Report of the Secretary-General pursuant to General Assembly resolution 53/35: The fall of Srebrenica,” United Nations, November 15, 1999, para. 38; see also Neuffer, *The Key to My Neighbor’s House*, 56.

⁷⁷⁵ Honig and Both, *Srebrenica*, 85-86; Silber and Little, *Yugoslavia*, 267.

⁷⁷⁶ John F. Burns, “U.N. General to Stay in Bosnian Town,” *New York Times*, Mar 17, 1993.

⁷⁷⁷ Honig and Both, *Srebrenica: Record of a War Crime*, 88.

⁷⁷⁸ John F. Burns, “U.N. General to Stay in Bosnian Town,” *New York Times*, Mar 17, 1993.

⁷⁷⁹ “Report of the Secretary-General pursuant to General Assembly resolution 53/35: The fall of Srebrenica,” United Nations, November 15, 1999, para. 40.

⁷⁸⁰ As cited in Alan Riding, “France Finds a Hero in Balkan Town,” *New York Times*, Mar 20, 1993

⁷⁸¹ Honig and Both, *Srebrenica*, 87.

⁷⁸² Honig and Both, *Srebrenica*, 90.

⁷⁸³ “Report of the Secretary-General pursuant to General Assembly resolution 53/35: The fall of Srebrenica,” United Nations, November 15, 1999, para. 40.

attempt to save the city from what looked like imminent takeover, the UN issued a declaration in the middle of the night on April 16, assigning Srebrenica the status of a UN “Safe Area,” a concept that had been used previously in Iraqi Kurdistan in 1991.⁷⁸⁴ The Security Council’s Resolution demanded “all parties treat Srebrenica and its surroundings as a safe area which should be free from any armed attack or any other hostile act.”⁷⁸⁵ Two days later, leaders of the UN Protection Force put their own layer of protection into effect, convincing Bosnian Muslim leaders to agree to a ceasefire, and disarm in exchange for Serb promises to respect the Safe Area and to allow wounded and ill civilians and combatants to be transferred out of the enclave.⁷⁸⁶ In May, Bosnian Serb leaders including General Ratko Mladić, who would later be tried for war crimes, crimes against humanity, and genocide at the ICTY, agreed to withdraw infantry troops and artillery, contingent on the Muslim forces’ disarming. Neither was to happen: the Bosnian Muslim troops kept most of their arms and artillery, fearing a situation in which they were outgunned by the Serbs; the Serbs, in turn, refused to withdraw.⁷⁸⁷ For the next two years, Bosnian Serb troops continued to bombard and blockade the enclave, limiting the movement of UN protection troops and humanitarian aid convoys.⁷⁸⁸ But the now “Safe Area” of Srebrenica remained in a largely calm, yet precarious situation.⁷⁸⁹

In January 1994, a Dutch battalion of UN peacekeeping troops arrived in Srebrenica, replacing the Canadian battalion that had been stationed in the city since its designation as a safe area. A call had gone out to UN member states to send battalions to replace the Canadians the previous fall, and the Dutch were the only state to offer. Peacekeeping and the establishment of Safe Areas was a politically popular position in the Netherlands; many Dutch people also favored more explicit military intervention.⁷⁹⁰ The 570 UN Protection Force troops from the Netherlands that relieved the Canadian UN troops on March 3, 1994 were well-trained, disciplined, and primed to value the humanitarian cause of their mission. They were not, however, seen by the Bosnian Serb forces as a credible threat. As peacekeepers, their ability to use force was strictly limited to moments of self-defense; these “blue helmets,” as UN peacekeepers are often known, were lightly armed, and not allowed to even raise their weapons above a forty-five degree angle unless they were receiving direct fire.⁷⁹¹ Even the Dutch soldiers were poorly supplied, lacking ammunition and reaching critically low levels of food even within the UN compound in Potocari, some three kilometers from

⁷⁸⁴ Neuffer, *The Key to My Neighbor’s House*, 57; For a detailed account of the negotiations and actions behind the creation of the Srebrenica Safe Area, see Chapter 5: “Mission Impossible’: Designing a Safe Area Policy,” in Honig and Both, *Srebrenica*, 99-117.

⁷⁸⁵ Security Council Resolution 819 (1993), United Nations.

⁷⁸⁶ “Report of the Secretary-General pursuant to General Assembly resolution 53/35: The fall of Srebrenica,” United Nations, November 15, 1999, para. 59.

⁷⁸⁷ Honig and Both, *Srebrenica*, 108.

⁷⁸⁸ “Report of the Secretary-General pursuant to General Assembly resolution 53/35: The fall of Srebrenica,” United Nations, November 15, 1999, para. 93.

⁷⁸⁹ “Report of the Secretary-General pursuant to General Assembly resolution 53/35: The fall of Srebrenica,” United Nations, November 15, 1999, para. 221.

⁷⁹⁰ Honig and Both, *Srebrenica*, 117.

⁷⁹¹ Honig and Both, *Srebrenica*, 125-128.

the Srebrenica enclave, by early June 1995.⁷⁹² By late that month, the situation had deteriorated in the UN compound to the point where, in the soldiers' letters home as much as in the national press, one finds pleas to pull Dutch forces out of Srebrenica.⁷⁹³

Early in the morning on July 6, their worst fears were realized, when Bosnian Serb forces began shelling UN outposts around Srebrenica. Over the next several days, the Dutch peacekeepers were driven from their observation posts on the outskirts of the enclave, taking increasingly defensive positions and calling for UN and NATO air strikes to halt the advancing Serb forces, who vastly outnumbered and outgunned the Dutch.⁷⁹⁴ Some 25,000 of the town's residents, mainly women, children, and the elderly, had streamed out of Srebrenica town, walking the three kilometers to Potocari, where they huddled outside the UN Protection Force base. Meanwhile, approximately 15,000 Muslim men of military age—who feared being taken prisoner, or worse, if they remained when Serb forces entered the town—streamed out of Srebrenica toward the Bosnian Muslim-held city of Tuzla, fifty-kilometer walk through Serb controlled territory.⁷⁹⁵ They left the enclave at nightfall, slowly crossing the minefields that surrounded it, the column stretching out for miles.⁷⁹⁶ Even as the Dutch peacekeepers and refugees prepared for the worst, the international community hesitated, reluctant to send in close air support to halt the Bosnian Serb advance.⁷⁹⁷ The Dutch commander radioed frantically for NATO airstrikes to take out the advancing army, but none ever came. Abandoned, outmanned, and outgunned, the Dutch not only could not guarantee the safety of the civilians gathered around the base at Potocari; they could not guarantee their own safety. When NATO airstrikes finally came they were too little, too late. Srebrenica fell to the Bosnian Serbs on July 11, 1995.⁷⁹⁸

Video taken by a Bosnian Serb journalist late that afternoon shows a military convoy arriving in the empty streets of Srebrenica, carrying with it General Ratko Mladic, the Bosnian Serb Army's commander. "Congratulations, congratulations," an ebullient Mladic repeated as he strutted through down the enclave's main street, shaking soldiers' hands and trading the customary Serbian three-cheek-kiss greeting: right, left, right. "Here we are, on 11 July 1995, in Serb Srebrenica," the General stopped, and spoke directly into the camera. "We give this town to the Serb people as a gift," he said. "The time has come to take revenge on the Turks in this region."⁷⁹⁹ Mladic and the Bosnian Serb Army's revenge on the Turks—a pejorative term for the town's Bosnian Muslims—came swiftly.

⁷⁹² "Report of the Secretary-General pursuant to General Assembly resolution 53/35: The fall of Srebrenica," UN document A/54/549, 15 November 1999, para. 235; see also Honig and Both, *Srebrenica: Record of a War Crime*, 134.

⁷⁹³ Honig and Both, *Srebrenica*, 135-6.

⁷⁹⁴ For a comprehensive, day-by-day account of the July 1995 Bosnian Serb assault on Srebrenica, see Rodhe, *Endgame*.

⁷⁹⁵ "Report of the Secretary-General pursuant to General Assembly resolution 53/35: The fall of Srebrenica," United Nations, November 15, 1999, para. 309-310.

⁷⁹⁶ *Prosecutor v. Radislav Krstic* (Trial Transcript), March 13, 2000, International Criminal Tribunal for the former Yugoslavia, 502.

⁷⁹⁷ For a detailed discussion of the international negotiations over providing air strikes or close air support to halt the Bosnian Serb advance in the days leading up to the fall of Srebrenica, see Chapter 7, "Breaking the Machine: The Search for a New UNPROFOR Strategy," in Honig and Both, *Srebrenica*, 141-159; see also Rodhe, *Endgame*.

⁷⁹⁸ "Report of the Secretary-General pursuant to General Assembly resolution 53/35: The fall of Srebrenica," United Nations, November 15, 1999, paras. 297-317.

⁷⁹⁹ "Ratko Mladic Entering Srebrenica," *The Mladic Files*, US Holocaust Memorial Museum. <https://www.youtube.com/watch?v=QfInjlnOT4Q>

The next morning, the Dutch commander and three Bosnian Muslim representatives met with Mladic to discuss the humanitarian situation of the refugees crowded around the UN base, and possibilities for evacuating civilians from the enclave. Mladic told the Dutch commander, Colonel Thomas Karremans, that the Bosnian Serbs were willing to help transfer civilians out of the enclave, either to Muslim-held Tuzla, or to third countries. Mladic told a reporter, “Our army does not want combat against civilians, or against the UNPROFOR [UN Protection Force] forces. The aim was not to fight civilian populations. We have nothing against the people here or UNPROFOR. [...] [W]e are going to evacuate women and children, elderly persons, and all others who are willing to leave this area of combat activities.”⁸⁰⁰ Yet the fear that had driven Srebrenica’s young men to undertake the risky walk to Zepa was borne out: Mladic did not recognize, as the Dutch and the international community did, all of the refugees gathered at Potocari as civilians. The Bosnian Serb General claimed that there were some 3-4,000 Muslim soldiers hiding out in the enclave, and demanded the Dutch allow him to question all men between the ages of 17 and 60 who remained among the refugees seeking shelter at the UN compound.⁸⁰¹

Karremans would later testify that he felt the Dutch UN troops were nearly as subject to the whims of the Bosnian Serbs as were the refugees. The best course of action to protect the lives of the civilians who had sought his protection, he would write later, appeared that it would be to take Mladic at his word that he would not harm civilians. The UN commander agreed to allow the Bosnian Serbs to load the civilians onto buses, provided one Dutch soldier be allowed on each bus to oversee their treatment and safety. Preparations for the transports began early that afternoon, with the arrival in Potocari of almost fifty buses, a smiling and magnanimous Mladic, and a cohort of news cameras to film this act of Bosnian Serb humanitarian concern. Cameras filmed Mladic walking among the refugees, speaking in soothing tones. “Don’t be afraid. [...] Let women and children go first. Plenty of buses will come. [...] Nobody will harm you.”⁸⁰²

Plenty of buses did come—too many, in fact, and in too rapid succession for Karremans to place a Dutch soldier on each of them—but it was less true that the civilians had nothing to fear. A Bosnian Serb journalist named Zoran Petrovic-Pirocanac, who was embedded with Mladic, filmed the evacuation on the 12th and 13th of July, capturing footage that would be broadcast all over the world in the days and weeks to come. Although the filmmaker would later try to cover up the very evidence his camera had created—erasing and destroying particularly haunting scenes—the haunting footage would later be used as evidence at the ICTY. Petrovic-Pirocanac’s footage pans the scene, showing blue and white buses adorned with Cyrillic letters driving through crowded streets. As young, handsome, and tanned blue-bereted Dutch peacekeepers look on, a scene unfolds that recalls, with hardly any effort on the part of the viewer, the iconic image from the Holocaust: lines of Muslim men and women approach the buses and are separated from each other by one of Mladic’s men. “Go left,” orders each man in line, “go left!” From behind the camera, Petrovic-

⁸⁰⁰ “Report of the Secretary-General pursuant to General Assembly resolution 53/35: The fall of Srebrenica,” United Nations, November 15, 1999, paras. 3201.

⁸⁰¹ “Report of the Secretary-General pursuant to General Assembly resolution 53/35: The fall of Srebrenica,” United Nations, November 15, 1999, paras. 320; see also Honig and Both, *Srebrenica*, 177.

⁸⁰² “Report of the Secretary-General pursuant to General Assembly resolution 53/35: The fall of Srebrenica,” United Nations, November 15, 1999, paras. 323.

Pirocanac asks one of the Dutch soldiers, in English, “what’s going on here?” As he watches the refugees climb onto buses, he replies, “You know what’s going on here.”⁸⁰³

Another soldier looked into Petrovic-Pirocanac’s camera and commented, “there is overcrowding in that place, where the men are being taken, the buses, it’s too crowded.” He shook his head. “It’s not good.” The soldiers’ words were as accurate as they were ominous. What was “going on here”—what was “not good”—was the first genocide on the European continent since the Holocaust. It was carried out by the Bosnian Serbs, but on civilians who were under the protection of the international community—or at least who understood themselves to be in the UN’s care. And the young Dutch soldiers, acting as the UN’s proxy, were not unaware of the situation around them. On one occasion, a Dutch soldier was forced to accompany Serb soldiers on what they called a “Muslim hunt”; many others were witnesses to beatings, executions, or came across bodies of slain soldiers. When the Dutch peacekeepers were pulled out of Srebrenica on the 21st of July, 1995, many of them knew—or at least suspected—that a terrible fate had befallen many the men and boys who had come to Potocari seeking UN protection.⁸⁰⁴

Late in the afternoon of July 12, Bosnian Serb-provided buses carrying 5,000 of Srebrenica’s women and children rolled in to the Muslim-held town of Kladanj. The men, however, would never arrive. Instead, that evening the Bosnian Serb forces began transporting men on buses of their own—this time explicitly barring Dutch soldiers from accompanying them. Many of the buses pulled up outside the Kravica warehouse, an empty hangar in Bratunac, some five kilometers north of Potocari.⁸⁰⁵ More than one thousand men were “jammed inside,” as an investigator put it in his testimony at the ICTY,⁸⁰⁶ and left to spend a night punctuated by beatings and sporadic killings.⁸⁰⁷ More men were transported from Potocari to the Kravica warehouse the following morning; others were consolidated in an old school, on trucks and buses, and in a football field—the very football field full of bodies that appeared in the photograph Madeleine Albright would show to the UN Security Council the following month.⁸⁰⁸ By that evening, the UN Secretary-General’s report would conclude, there were “virtually no Bosniac males left in the former ‘safe area’ of Srebrenica.”⁸⁰⁹ By that afternoon, all of the men from the enclave were either on the road to Zepa—or had been killed en route—or were in Serb custody in the area of Potocari and Bratunac, either dead or soon to be.⁸¹⁰

⁸⁰³ Zoran Petrovic-Pirocanac, *Operacija Srebrenica*. The original footage shot by Serbian journalist Zoran Petrovic-Pirocanac as broadcast on Studio B TV, Belgrade on July 14.

⁸⁰⁴ Stover and Peress, *The Graves*, 136.

⁸⁰⁵ *Prosecutor v. Radislav Krstic* (Trial Transcript), March 13, 2000, International Criminal Tribunal for the former Yugoslavia, 501.

⁸⁰⁶ *Prosecutor v. Radislav Krstic* (Trial Transcript), March 13, 2000, International Criminal Tribunal for the former Yugoslavia, 506.

⁸⁰⁷ “Report of the Secretary-General pursuant to General Assembly resolution 53/35: The fall of Srebrenica,” United Nations, November 15, 1999, para. 340-343.

⁸⁰⁸ *Prosecutor v. Radislav Krstic* (Trial Transcript), March 13, 2000, International Criminal Tribunal for the former Yugoslavia, 508; for a detailed description of the events that transpired between June 13 and 16 at the Kravica warehouse, a major execution site, see *Prosecutor v. Radislav Krstic* (Trial Transcript), March 13, 2000, International Criminal Tribunal for the former Yugoslavia, 617-626.

⁸⁰⁹ “Report of the Secretary-General pursuant to General Assembly resolution 53/35: The fall of Srebrenica,” United Nations, November 15, 1999, para. 346, 350.

⁸¹⁰ “Report of the Secretary-General pursuant to General Assembly resolution 53/35: The fall of Srebrenica,” United Nations, November 15, 1999, para. 346, 350.

The large-scale, systematic killings of Muslim men—through summary execution, firing squad, and, in the case of the hangar in Bratunac, grenades thrown into tightly packed groups of men⁸¹¹—began the next day, July 14, and continued for three days. Backhoes pushed the bodies out of the Kravica warehouse into piles as one might with mulch or snow, rolling them on top of each other, cutting off their limbs, and tangling their extremities before loading them into trucks and driving them to grave sites nearby, where front-end loaders and excavators had dug pits. Finally, backhoes toppled the piles of bodies into the holes and covered them dirt. By July 17, 1995, some 8,000 Bosnian Muslim men and boys lay in mass graves in the immediate vicinity of Srebrenica.⁸¹²

The disturbed earth David Rodhe stumbled upon two weeks later in Nova Kasaba lay directly on top of this Bosnian Serb effort to conceal the massacres. Rodhe's stories—along with the US spy plane photographs—provided the first, highly suggestive evidence in the west that Srebrenica's men would only be found through forensic means. And although ICTY investigators—including a young French police officer named Jean-Rene Ruez who served as team leader for the ICTY's Srebrenica investigation—were on the ground in Tuzla by the end of July, it would be almost a year before the conflict had calmed enough to allow forensic teams to enter the Republika Srpska to look for forensic proof of the massacres: execution sites and mass graves.

In the spring of 1996, the ICTY's Office of the Prosecutor began forensic investigations of suspected execution points and mass graves in the area around Potocari, Srebrenica, and Bratunac. Ruez led a team of ICTY investigators on one of the first such examinations, on April 12, 1996, to the Kravica warehouse in Bratunac. Video rolled as the ICTY investigation team, along Bill Haglund and investigators from the United States Naval Criminal Investigation Service, arrived at the warehouse complex. The complex consisted of four squat, rectangular buildings, with brick-red roofs and painted-white aluminum siding facades. The largest was set back about twenty meters on the property, facing the road.⁸¹³ The main building's facade, the video shows clearly, is riddled with holes, where bullets ripped through the corrugated aluminum siding. In a rubbish pile off to the right of the warehouse, they found dozens of shell casing. Around back of the main building, grenade handles lay directly below windows of the warehouse, where Bosnian Serb soldiers presumably stood when they pulled the pins out of grenades and lobbed them into the mass of men huddled inside. The camera then follows the team inside of the warehouse, where the walls were similarly pockmarked with bullet holes, and the walls, floor, and ceiling were coated with dried human blood and tissue. The narrator, an ICTY investigator named Peter Nicholson, observed that, even a year later, the warehouse hadn't been cleaned, and the scene left little to the imagination. "All the traces you can see are residues, human residues, traces of bullet holes and grenade explosions and a lot of bloodstains, a lot of hair peel covering the entire surface of all these walls. The shooting [came] from all directions."⁸¹⁴

⁸¹¹ *Prosecutor v. Radislav Krstic* (Trial Judgment), August 2, 2001, International Criminal Tribunal for the former Yugoslavia, para. 205.

⁸¹² "Report of the Secretary-General pursuant to General Assembly resolution 53/35: The fall of Srebrenica," United Nations, November 15, 1999, para. 361-370.

⁸¹³ Aerial photos of the Kravica Warehouse, Bratunac, Bosnia and Herzegovina, submitted as evidence to *Prosecutor v. Mladic*, IT-09-92-T. In possession of the author.

⁸¹⁴ Video footage submitted to the ICTY (see, for verbal description of video contents, *Prosecutor v. Radislav Krstic* (Trial Transcript), March 14, 2000, International Criminal Tribunal for the former Yugoslavia, 629-639).

In the second half of 1996, joint forensic teams from ICTY and PHR investigated and exhumed four gravesites where bodies from Srebrenica had been buried after the massacres the summer before. Forensic teams arrived at the first grave, which lay alongside a road in the Cerska Valley, a remote wooded area about fifty kilometers north west of Srebrenica, in the first days of July, 1996.⁸¹⁵ The US spy plane photographs Albright showed to the Security Council the previous August betrayed clear evidence a thirty-meter patch alongside the road through Cerska would contain graves: a photo from July 5, 1995 showed dark forest and foliage along the lighter colored dirt of the road; in a photo from July 27th, two large patches of lighter dirt are visible directly adjacent to the road, where the foliage has been cut away and the dirt has been recently disturbed.⁸¹⁶ The road—an elevated term for a muddy, rutted cleared swath—that runs through the Cerska Valley is lined by a high embankment on its northern side, and a steep slope that runs along the southerly side. For thirty meters along the northern side, along the embankment, the team found cartridge casings where the shooters would have stood. On the southerly side, they expected they would find the grave.⁸¹⁷

Forensic exhumation of the suspected gravesite, however, was delayed until a suitable demining team could be found; the UN-run Implementation Force (IFOR) commanders so feared the landmines that dotted the Bosnia landscape—and that still do, in 2016—that they would not even authorize demining teams to inspect the grave prior to exhumation. Finally, on the morning of July 7, a Norwegian NGO provided dogs who spent several hours searching the area for mines. Once it was cleared, a skilled heavy machinery operator began clearing the overburden—the top layer of dirt—off of the grave with a bulldozer.⁸¹⁸ Underneath, the grave itself was shallow, and contained bodies of men and boys, all dressed in civilian clothing. About one quarter of them had their hands tied behind their backs with wire ligatures; additional, loose ligatures were found in the grave as well, suggesting that more of the victims had been bound prior to their murders. Of the 150 bodies unearthed from the Cerska roadside grave, all but one were determined to have died of bullet wounds.⁸¹⁹ Based on the location of the cartridge casings, the forensic teams concluded that the victims had been lined up on the southerly side of the road, and shot by a firing squad that stood on the opposite side. When they fired, the victims fell off the road into the adjacent ravine, where they were covered with dirt to create a makeshift grave.⁸²⁰

Once the demining team gave the forensic teams the green light to open the graves, the exhumation itself took just eleven days: the grave was shallow—barely a grave, Haglund testified at the ICTY, as “no hole was dug”; dirt from the embankment was shoveled over the bodies in the

⁸¹⁵ Stover and Peress, *The Graves*, 148.

⁸¹⁶ Satellite photos of Cerska Area, Bosnia and Herzegovina, submitted as evidence to *Prosecutor v. Mladic*, IT-09-92-T, and in possession of the author.

⁸¹⁷ *Prosecutor v. Radislav Krstic* (Trial Transcript), May 29, 2000, International Criminal Tribunal for the former Yugoslavia, 3733.

⁸¹⁸ Stover and Peress, *The Graves*, 148.

⁸¹⁹ *Prosecutor v. Radislav Krstic* (Trial Transcript), May 29, 2000, International Criminal Tribunal for the former Yugoslavia, 3734.

⁸²⁰ *Prosecutor v. Radislav Krstic* (Trial Transcript), May 29, 2000, International Criminal Tribunal for the former Yugoslavia, 3737; Dean Manning, “Srebrenica Investigation: Summary of Forensic Evidence—Execution Points and Mass Graves,” May 16, 2000, International Criminal Tribunal for the Former Yugoslavia, 6.

ravine, creating what Haglund called “a repository with human remains.”⁸²¹ The “repository” was undisturbed since the bodies had been buried, and although Haglund told the ICTY that it contained individual sets of remains that were easy to keep associated—that is, the bodies were still relatively whole.⁸²² Video taken by an Associated Press videographer on the last day of the Cerska exhumation, July 19, 2015, shows members of the forensic teams gently loading body bags, each of which held an individual set of remains, into the bucket of a bulldozer, which carried them across a clearing to the door of a white refrigerated trailer. The body bags were then transferred into the trailer, and ultimately driven to the ICTY autopsy facility in Tuzla, where pathologists conducted autopsies over the following weeks to determine, as Haglund told the AP videographer, “their age and sex and stature and how they died, patterns of injuries, and when possible, begin the identification process for certain individuals.”⁸²³

Exhumations of three other graves that summer followed similar patterns. The day after the AP videographer filmed the transfer of body bags into the refrigerated container at the Cerska site, Haglund and the forensic teams moved on to Nova Kasaba, a twenty kilometer drive southeast, along Bosnia’s winding roads. In her presentation before the UN Security Council on August 10, 1995, Madeleine Albright had shown photographs of a clearing in the town of Nova Kasaba, near a bend in the main road. Photographs from July 7, 1995, show a grassy field with no areas of disturbed earth; twenty days later, on July 27, tracks made by heavy machinery were clearly evident across the field, and large swaths of the field were newly disturbed, covered in piles of dirt.⁸²⁴ The field in Nova Kasaba was also the first gravesite discovered by an outside investigator after the Srebrenica massacre: Rodhe, the American journalist, had stumbled upon the suspected when he strayed off course during his drive to the Bosnian-Serb held city of Pale in August of 1995. Along with the photographs, Rodhe’s findings—disturbed earth, Bosnian Muslim identity papers, and a lower leg still wearing a boot—suggested what the forensic teams would find when they arrived a year later.

Indeed, the forensic team’s investigation in the Nova Kasaba field led to the discovery of four discrete burial sites, containing thirty-three individuals. The largest of these, named Nova Kasaba 2, contained nineteen bodies, all males. Autopsies conducted the next month would show that all but one of the victims died as a result of gunshot wounds; the final victim of massive head trauma. Twenty-seven of the thirty-three men had their hands bound behind their backs, and the position of the bodies in the grave, Haglund told the courtroom at the ICTY, were not those that would be expected if the bodies had been thrown into the grave after death. Rather, he said, “it would be my opinion that they most likely were in those positions in those graves and shot in the

⁸²¹ *Prosecutor v. Radislav Krstic* (Trial Transcript), May 29, 2000, International Criminal Tribunal for the former Yugoslavia, 3737.

⁸²² *Prosecutor v. Radislav Krstic* (Trial Transcript), May 29, 2000, International Criminal Tribunal for the former Yugoslavia, 3737; Dean Manning, “Srebrenica Investigation: Summary of Forensic Evidence—Execution Points and Mass Graves,” May 16, 2000, International Criminal Tribunal for the Former Yugoslavia, 10.

⁸²³ Associated Press Archive, “Bosnia—Investigation of mass graves in Cerska,” July 19, 1996.

⁸²⁴ Satellite photos of Nova Kasaba, Bosnia and Herzegovina, submitted as evidence to *Prosecutor v. Mladic*, IT-09-92-T. In possession of the author.

grave”⁸²⁵ as they looked up at their killers, anticipating their deaths. At Nova Kasaba, as at Cerska—and as at the two other gravesites exhumed in the summer of 1996, sites known as Lazete 2⁸²⁶ and Branjevo Farm⁸²⁷—the forensic evidence was not only able to reveal facts such as how many people died, and in what manner. The positions of the bodies, the scattering of cartridge casings, and the wire ligatures that bound the men’s hands behind their backs told investigators and observers *how* they died: systematically, in cold-blooded summary executions; likely aware of their fate and the ethnic reasons for it, but terrified and powerless to do anything to stop it.

Yet even as they turned up factual evidence that made clear something terrible had happened in the region around Srebrenica, and evocative suggestions about precisely the kind of terrible that thing had been, the internal dynamics of the forensic teams were in turmoil. Many of the same challenges that had plagued exhumations done in previous years in Croatia and Rwanda—where the legal needs of international criminal tribunals came into tension with the priorities of forensic practitioners and debates among them over the correct practice of exhumations on the ground. Sociologist Adam Rosenblatt argues that a misalignment of the methods, goals, and desired outcomes on the part what he calls “forensic stakeholders” led to a virtual tug of war.⁸²⁸

For many of the forensic scientists who exhumed graves in Bosnia during the 1996 season, working for the ICTY represented a major shift in working conditions, mindset, and in the ownership and control they had over their work. Two issues arising from this change became major points of tension. First, over the practical mechanics of the exhumations: how quickly could and should they be carried out, and what level of scientific care an exhumation for an international criminal tribunal required. The second point of tension went straight to the heart of forensic investigations after atrocity or genocide, raising questions about their purpose and motivation, as well as debates over who had the right to exhume bodies, how those exhumations should be carried out, and who they were for.

Tensions over the scientific and forensic method a mass grave exhumation should take stemmed from one major source: speed. Clyde Snow had long been a proponent of taking whatever time was necessary to do an exhumation well—and in the humanitarian-focused exhumations in Latin America in the 1980s and early 1990s, the forensic teams he trained and led were largely free from outside deadlines, beholden far more to scientific care than they were to any imposed schedule. In Bosnia, however, the investigators and lawyers from the tribunal’s Office of the Prosecutor had

⁸²⁵ *Prosecutor v. Radislav Krstic* (Trial Transcript), May 29, 2000, International Criminal Tribunal for the former Yugoslavia, 3741.

⁸²⁶ The Lazete 2 gravesite was exhumed by a joint PHR and ICTY team under Haglund’s direction between August 19 and September 9, 1996. The site contained two graves that together contained 165 male victims between the ages of 13 and 70, 158 of whom died of gunshot wounds. See *Prosecutor v. Radislav Krstic* (Trial Transcript), May 29, 2000, International Criminal Tribunal for the former Yugoslavia, 3742-1351; Dean Manning, “Srebrenica Investigation: Summary of Forensic Evidence—Execution Points and Mass Graves,” May 16, 2000, International Criminal Tribunal for the Former Yugoslavia, 22-25.

⁸²⁷ An exhumation of the Branjevo Farm gravesite was conducted by a joint PHR and ICTY team under Haglund’s direction between September 10 and 24, 1996. Autopsies the following month concluded that, of the 132 male victims removed from the grave, all were between the ages of 15 and 61, and all but two had died as a result of gunshot wounds. See *Prosecutor v. Radislav Krstic* (Trial Transcript), May 29, 2000, International Criminal Tribunal for the former Yugoslavia, 3751-3758; Dean Manning, “Srebrenica Investigation: Summary of Forensic Evidence—Execution Points and Mass Graves,” May 16, 2000, International Criminal Tribunal for the Former Yugoslavia, 14-17.

⁸²⁸ Explained with more elegance and in greater detail in Rosenblatt, *Digging for the Disappeared*, 46-52.

timelines that needed to be met for legal proceedings and trials. And Haglund, as the ICTY's senior forensic consultant and the liaison between PHR and the tribunal, was motivated to make the forensic teams work as efficiently as possible. The former Seattle-area medical examiner would say later that he had taken the position with the ICTY out of a sense that work for the tribunal would genuinely matter. "I just want to make a little adjustment in a great imperfect world," Haglund explained. "I want to do something important. Just one thing that is really significant before I die."⁸²⁹ They were also beholden to the nature of the charges, crimes against humanity and genocide, which required investigators find certain kinds of information, such as age, cause of death, and clues about ethnicity, but not pieces of information like identity. The latter had provided a major motivation for and goal of investigations in Latin America; in Bosnia, the evidentiary requirements of the charges framed the goals of the investigations.⁸³⁰

The exhumation season in Bosnia runs from the spring thaw through mid-November, when snow, ice, and frozen ground make it impossible to continue digging; the tribunal's Office of the Prosecutor put pressure on their forensic team leader to exhume as many graves as possible before the winter.⁸³¹ In turn, Haglund's sense of purpose and urgency to respond to the tribunal's needs had palpable—and not always positive—impacts on the forensic scientists who worked for him. At times, the members of Haglund's forensic teams were driven to exhaustion by the pace of work.⁸³² Others later expressed concerns that the speed of exhumation had compromised the scientific integrity of the investigations, resulting in commingling—the mixing of parts of one body with parts of another—or disassociation, when a body's parts were separated from each other in the course of an exhumation.⁸³³ The controversy within the forensic community working in Bosnia over how an exhumation should be done escalated to accusations that the methods employed at the gravesites grievously flawed as to have produced irresponsible, even invalid, results. Accusations were also leveled against Bob Kirschner—a Chicago-based Medical Examiner who had worked with Snow on the American Airlines crash at O'Hare in 1979—alleging that he had altered autopsy reports done by other pathologists working in the Tuzla morgue, in some cases even changing cause of death.⁸³⁴

In response—and perhaps anticipating defense challenges to such contested forensic evidence—the Office of the Chief Prosecutor commissioned a panel of American, Canadian, and British forensic anthropologists, archaeologists, and pathologists to conduct a review of exhumation and autopsy procedures, and “to determine whether the evidence obtained by the exhumations and autopsies had been jeopardized, as had been alleged by some of those [...] who were actually a part of the operations.”⁸³⁵ The panel convened in San Antonio, Texas, in November 1997, and interviewed members of the PHR and ICTY forensic teams about their experiences. Some, including

⁸²⁹ Stover and Peress, *The Graves*, 93.

⁸³⁰ See Stover and Shigekane, “The Missing in the Aftermath of War.”

⁸³¹ Stover and Peress, *The Graves*, 98.

⁸³² Koff, *The Bone Woman*, 51-52.

⁸³³ Comment from Dorothy Gallagher, in “San Antonio Report,” Report of the Oversight Committee to the International Criminal Tribunal for the former Yugoslavia, 2D14-0005. In possession of the author.

⁸³⁴ Opinion and comments from Dr. Ellis Kerley, “San Antonio Report,” Report of the Oversight Committee to the International Criminal Tribunal for the former Yugoslavia, 2D14-0006. In possession of the author.

⁸³⁵ Opinion and comments from Dr. Ellis Kerley, “San Antonio Report,” Report of the Oversight Committee to the International Criminal Tribunal for the former Yugoslavia, 2D14-0006. In possession of the author.

Clyde Snow, expressed serious reservations about how the forensic investigations in Bosnia in 1996 had been handled. Snow, who had handled the exhumation at the Croatian Ovcara gravesite for the past four years,⁸³⁶ an exhumation that many felt was more carefully carried out and better served the needs of the families of its victims,⁸³⁷ was critical of Haglund’s methods. They were, he told the committee, “sloppy science,” done with too much speed and too little care. In one instance, Haglund’s team exhumed more than sixty bodies in one work day; it was “his opinion no more than twenty bodies should have been exhumed in a single day.” Haglund, Snow told the committee, “showed ‘very poor judgment’ and it was lucky nothing had ‘blown up’ as a result of the procedures used.”⁸³⁸

The San Antonio panel concluded that nothing had, in fact, “blown up.” The committee’s final report was clear that its members had found “no actual wrongdoing on the part of Dr. Haglund nor anything regarding the exhumations that jeopardized their scientific validity.”⁸³⁹ They saw the allegations about Kirshner’s alterations of the autopsy reports as more potentially serious violations of professional conduct,⁸⁴⁰ but concluded that even those were recoverable—the report’s final section details a suggested procedure for locating Kirschner’s alterations and reverting to the original pathologists’ conclusions⁸⁴¹—and did not invalidate the forensic evidence as a whole. The evidence of serious violations of human rights—of war crimes, crimes against humanity, and genocide—was “overwhelming at each site,” the report states. “A few problems of administration or temporary lapses from a scientific ideal could not jeopardize the overall quality of the evidence and its interpretation at autopsy. Any prosecution of war crimes in Yugoslavia will be on firm scientific grounds.”⁸⁴² Yet the circumstances under which the teams had operated was not without problems. The committee noted, with some befuddlement, “it was as though each person had served at a site,

⁸³⁶ Stover and Peress, *The Graves*, 101.

⁸³⁷ Stover and Shigekane, “The Missing in the Aftermath of War: When do the needs of families and international war crimes tribunals clash?” 851.

⁸³⁸ Comment from Clyde Snow, in “San Antonio Report,” Report of the Oversight Committee to the International Criminal Tribunal for the former Yugoslavia, 2D14-0004. In possession of the author.

⁸³⁹ Findings, “San Antonio Report,” Report of the Oversight Committee to the International Criminal Tribunal for the former Yugoslavia, 2D14-0007. In possession of the author.

⁸⁴⁰ Although the San Antonio review panel’s report suggested that Kirschner’s amendments to pathology and autopsy reports in Bosnia may have been a violation of professional ethics—one even punishable by law in some jurisdictions (Discussion and Conclusions, “San Antonio Report,” Report of the Oversight Committee to the International Criminal Tribunal for the former Yugoslavia, 2D14-0010)—others cited their support for Kirschner’s decisions and actions, and commended his performance considering the difficulties and limitations of the situation. In court, Haglund stated that Kirschner may have done this “in an effort to make things uniform.” (See *Prosecutor v. Radislav Krstic* (Trial Transcript), May 29, 2000, International Criminal Tribunal for the former Yugoslavia, 3761.) One of the investigators told me that, in his capacity as a Medical Examiner in Chicago, Kirshner would have regularly provided oversight of and amendments to autopsy reports drawn up by the pathologists on his staff. From the perspective of this investigator, the problem may have been simply that it was not communicated to Kirschner that such control over autopsy reports in an international setting was not acceptable.

⁸⁴¹ Autopsy Reports: Rehabilitation & Amendments, “San Antonio Report,” Report of the Oversight Committee to the International Criminal Tribunal for the former Yugoslavia, 2D14-0013. In possession of the author.

⁸⁴² Recommendations, “San Antonio Report,” Report of the Oversight Committee to the International Criminal Tribunal for the former Yugoslavia, 2D14-0008. In possession of the author.

or sites, different from the rest. There was no clear agreement as to who was responsible for what. [...] [T]here was no agreement as to who or what set the pace of the exhumations and autopsies.”⁸⁴³

That the first exhumation season for the ICTY felt disorganized and ad hoc should not have been entirely surprising. A not-uncommon complaint among members of the forensic teams—aired through gritted teeth and in moments of intense frustration—was that Haglund “didn’t know what he was doing.” But as Stover would write later, “the truth was that all of the scientists, including Haglund, were stretching the limits of their professional knowledge and experience.”⁸⁴⁴ Unlike the dry bones they dug out of the earth in nearly ten year-old graves in Argentina, Chile, and Guatemala, in Bosnia they encountered corpses that had been buried for less than a year in huge graves; they were still fleshed and decomposing. And unlike Rwanda, where the forensic team could focus entirely on the exhumation of a single grave, during the first forensic season in Bosnia, the team conducted exhumations at four different sites in rapid succession, many kilometers apart. In logistical terms, not to mention forensic ones, the 1996 exhumation season in Bosnia represented uncharted territory and brought with it new challenges.

Tensions over the Bosnian exhumations stemmed from deeper sources, though, than the logistics or scientific methods employed. The mismatch of purpose between the evidentiary needs of an international criminal tribunal and the motivations many of the forensic scientists who had cut their teeth on the humanitarian-focused exhumations in Latin America had been evident in the Rwandan exhumations, when some of the forensic scientists felt acutely the lack of family involvement at the gravesite. But in the first exhumations in Bosnia in 1996, tensions engendered by these differences in priority boiled over. Although Snow and his teams had always carried out their exhumations in Latin America in the 1980s with the possibility of trials in mind, Rosenblatt writes, they “saw the justifications for their work going far beyond the quite limited trials that were possible in post-Junta Argentina,” and focused on “developing a uniquely holistic and family-centric set of priorities for forensic investigation.” Yet those priorities didn’t sync with those of the ICTY, which needed specific information from the bodies, and needed to get it on a limited budget and timeline. During this first exhumation season, the “Latin American anthropologists and their international colleagues,” Rosenblatt writes, “discovered how different things could be when the large machinery of an international tribunal was directing their investigative priorities.”⁸⁴⁵

A particularly evocative example is what Eric Stover termed “the body transfers.” Over the course of the summer and fall of 1996, once they had been removed from the four mass gravesites by the forensic teams and then autopsied by pathologists at the morgue in Tuzla, over five hundred bodies and pieces of bodies—“disarticulated’ body parts,” Stover writes—were transferred from the custodianship of the ICTY to local Bosnian authorities.⁸⁴⁶ Each of the body bags was loaded into the back of a canvas covered flatbed truck and driven from the makeshift ICTY morgue to their new storage facility: tunnels leading to the salt mines outside of Tuzla, outfitted with dirt walls, wooden

⁸⁴³ Responses, “San Antonio Report,” Report of the Oversight Committee to the International Criminal Tribunal for the former Yugoslavia, 2D14-0006. In possession of the author.

⁸⁴⁴ Stover and Peress, *The Graves*, 97.

⁸⁴⁵ Rosenblatt, *Digging for the Disappeared*, 47.

⁸⁴⁶ Stover and Peress, *The Graves*, 177.

shelves, and a distinct lack of refrigeration.⁸⁴⁷ The Office of the Prosecutor, the organ of the ICTY tasked with investigating crimes and building cases, saw these transfers as both practical and logical. The tribunal had located and exhumed the graves, determined relevant information for prosecutions like age, gender, and cause of death; for prosecutorial purposes, additional information like identity was unnecessary.⁸⁴⁸ From the perspective of the court, Bosnian national authorities could handle humanitarian goals like individual identification and returning the remains to their families.

Yet, in practice, turning the bodies of Srebrenica victims over to Bosnian authorities was an act of abdication. Rather than handling identifications within the ICTY's forensic program, or working with another international agency to pursue identifications, the tribunal's transfer of the bodies to national authorities was, in effect, the handing over of a massive forensic problem that the Bosnians had no way to solve. The Dayton Peace Accords, which effectively ended the Bosnian War, had been signed in Paris less than a year earlier. Bosnia was still reeling, the government struggling to resume basic, daily operations; a forensic infrastructure capable of caring for, much less identifying, five hundred rapidly decomposing bodies was beyond reach. It was clear to the families that the tribunal, as the Argentine forensic scientist Morris Tidball-Binz told the International Committee for the Red Cross in 2011, was "mostly concerned with how they died, not who they were."⁸⁴⁹ In later years, matters would only get worse. When space ran out in the tunnels during the 1998 and 1999 exhumation seasons, remains were stored instead in shipping containers in a parking lot.⁸⁵⁰ For the families of the victims, the international community's absencing itself from responsibility for the bodies and the Bosnian government's inability to handle them in what seemed like a respectful way was an infuriating sign of disrespect. In 2000, things started to improve when a Clinton Administration-funded initiative called the International Commission for Missing Persons (ICMP) built new storage, morgue, and autopsy facilities, as well as labs for DNA testing. Thanks to an infusion of international funding, ICMP has very literally been able to buy time—the time that was missing from exhumations on behalf of the tribunal—and embark on an unprecedented project of fusing family needs and humanitarian goals with justice and accountability, and with cutting edge genetic science.

THE 1996 EXHUMATION season in Bosnia marked a major turning point for forensic science in the context of human rights work in the aftermath of atrocity, moving from traditional forensic methods—archaeology, anthropology, and pathology—to an explosion in the use of genetic methods like DNA identification to put names on an otherwise huge number of otherwise unidentifiable bones. The exhumations at Cerska, Nova Kasaba, Lazete 2, and the Branjevo Farm in the summer of 1996 just began to scratch the surface, both of the challenges that would face forensic experts as they navigated between the needs of families and the needs of international tribunals, and more literally, of the graves that lay hidden beneath Bosnia's forests, farmlands, and

⁸⁴⁷ Jennings, *Bosnia's Million Bones*, 91-92.

⁸⁴⁸ Stover and Shigekane, "The Missing in the Aftermath of War: When do the needs of families and international war crimes tribunals clash?" 854.

⁸⁴⁹ "Missing Persons: A Hidden Tragedy," 15.

⁸⁵⁰ Stover and Shigekane, "The Missing in the Aftermath of War: When do the needs of families and international war crimes tribunals clash?" 855.

ravines. All four of these graves were primary graves.⁸⁵¹ The designation of primary graves—as opposed to secondary or tertiary graves—is an important one in understanding what journalist Christian Jennings has termed Bosnia’s “forensic puzzle.”⁸⁵² “By ‘primary,’” Haglund explained to the ICTY courtroom, “I’m meaning that these are the graves that the individuals were placed in or were killed in, [...] the original location [where] they were buried.”⁸⁵³ All of the forensic investigations done in the service of human rights prior to Bosnia—in the Katyn Forest, Argentina, Guatemala, Iraq, Ukraine, and Rwanda—had been done on primary gravesites.

And even as the first exhumation season in Bosnia stretched the limits of the forensic teams’ training and expertise—with the challenges posed by large graves, still-fully-fleshed corpses, and coordinating multiple exhumations at the same time—it also signaled that further, even greater challenges awaited. Two of the graves, Lazete 2 and the large grave at Branjevo Farm, had been disturbed, or “robbed” of bodies, at some point in the intervening year between burial and exhumation.⁸⁵⁴ The grave robbers were the same as the grave-makers: the Bosnian Serb Army. After Madeleine Albright’s presentation of the spy plane photographs before the UN Security Council, after David Rodhe’s arrest at the gravesite in Nova Kasaba, and after Slobodan Milosevic attended the initial peace talks in Dayton, Ohio, the Bosnian Serbs “realiz[ed] the judicial net was closing in on them as the war was ending in autumn 1995.”⁸⁵⁵ The graves that held the physical evidence of their crime at Srebrenica not only dotted the landscape, but had also been revealed from the air. They panicked, and made what Jennings has called “a bold and enormous attempt to hide the evidence.” They drove heavy machinery—backhoes, excavators, and front-end loaders—back to the fields, ravines, and forests where the bodies of Srebrenica’s victims had originally been buried, and dug up their remains by the thousands. The forensic teams found the physical results of this grave robbing in the primary graves of Lazete 2 and Branjevo Farm, where they found bodies that had been severed in half, some parts in the grave and others no where to be found.⁸⁵⁶

The mixture of dirt and partially decomposed bodies was then loaded onto trucks and transported to dozens of smaller pits—secondary graves—in a region of about three hundred square miles that surrounds Srebrenica. In the process, bodies were broken apart, heads separated from torsos, and torsos from other extremities. When they were reburied, the “disarticulated” body parts were mixed together in the graves—or, in many cases, separated into different graves: the remains of one person could be found in two, three, or four graves, miles apart.⁸⁵⁷ This, Bosnia’s forensic jigsaw puzzle, posed challenges that far outstripped those related to the size of the graves, the condition of the bodies, or even their numbers. Forensic science needed not only to attach a name to each body,

⁸⁵¹ Dean Manning, “Srebrenica Investigation: Summary of Forensic Evidence—Execution Points and Mass Graves,” May 16, 2000, International Criminal Tribunal for the Former Yugoslavia, 2.

⁸⁵² Jennings, *Bosnia’s Million Bones*.

⁸⁵³ *Prosecutor v. Radislav Krstic* (Trial Transcript), May 29, 2000, International Criminal Tribunal for the former Yugoslavia, 3742.

⁸⁵⁴ Dean Manning, “Srebrenica Investigation: Summary of Forensic Evidence—Execution Points and Mass Graves,” May 16, 2000, International Criminal Tribunal for the Former Yugoslavia, 2.

⁸⁵⁵ Jennings, *Bosnia’s Million Bones*, 6.

⁸⁵⁶ *Prosecutor v. Radislav Krstic* (Trial Transcript), May 29, 2000, International Criminal Tribunal for the former Yugoslavia, 3758.

⁸⁵⁷ Komar, “Patterns of Mortuary Practice Associated with Genocide: Implications for Archaeological Research,” 126; Jennings, *Bosnia’s Million Bones*, 6.

a tall enough order. In Bosnia, forensic scientists would need to attach a name to each individual body part, piecing individuals back together, sometimes bone-by-bone.

In 1996, in this early stage of Bosnian exhumations, identifications of whole bodies were hard enough. Haglund explained to the ICTY courtroom just what a challenge that the forensic teams faced. “If you have,” he said, “in individuals and they are scattered way away from their home territory and they end up in graves that you do not know which grave who ended up in, then it becomes a great feat to interview members of 7,000 families [...] and then to put together a database” that contained enough information to identify the bodies.⁸⁵⁸ And in most cases, interviews with the families did not provide fingerprints, or dental or skeletal x-rays that could be used to positively identify bodies by matching old injuries, abnormalities, or dental work. Rather, as Haglund explained, they had to rely on “anecdotal information for the most part out of people’s memories”—information that could produce only what are known as “presumptive identifications,” which are considered far less conclusive. With broken bodies, the task becomes exponentially harder: Srebrenica’s graves held a total of over 1.6 million individual bones: 206 per person, times eight thousand men and boys.⁸⁵⁹ “In order to scientifically identify someone” from the Srebrenica graves, Haglund told the court, in words that now sound prophetic, “we’re left with the last resource of doing DNA identification. That’s expensive and this is a great, large project. I know some progress is being made on it.”⁸⁶⁰

That progress took place in the science as much as it did in the self-definition and self-understanding of the forensic community working in the aftermath of conflict and atrocity. DNA technology ultimately brought with it a humanitarian solution, one that made it possible to meet the wishes of the families of the missing on a large scale. DNA technology would come to define, and profoundly alter, the future of forensic investigations into large-scale crimes. But behind the modern-day veneer of the high-tech DNA labs lies the humble origins of forensic science in the aftermath of atrocity: a set of rough-hewn wooden tables assembled around an open grave in a forest in the German-occupied Soviet Union, around which team of international forensic scientists gathered who, despite their expertise, were politically and scientifically far out of their depth. Though the technology advanced considerably over the next half-century, the other challenges from the Katyn Forest grave—the political, the cultural, and the questions about what and how much forensic evidence can reveal—remained salient. As the scale expanded to a global one, the stakes of

⁸⁵⁸ *Prosecutor v. Radislav Krstic* (Trial Transcript), May 29, 2000, International Criminal Tribunal for the former Yugoslavia, 3763.

⁸⁵⁹ Jennings, *Bosnia’s Million Bones*, 12.

⁸⁶⁰ *Prosecutor v. Radislav Krstic* (Trial Transcript), May 29, 2000, International Criminal Tribunal for the former Yugoslavia, 3763. Other scholars and writers have picked up the story here, producing fantastic and detailed overviews of the entrée, development, and revolution of DNA identifications in the Bosnian context. For a recent overview written by a journalist with unparalleled insider access to the International Commission on Missing Persons and extensive knowledge of Bosnia, see Jennings, *Bosnia’s Million Bones*. For a sensitive and impeccably researched account of the development of DNA testing and the effects it had on survivor communities and organizations of Bosnian women, see Wagner, *To Know Where he Lies*. For an overview from a forensic scientist and member of Physicians for Human Rights’ Bosnia project in the late 1990s, see Vollen, “All that Remains: Identifying the Victims of the Srebrenica Massacre.” See also: Stover and Weinstein, *My Neighbor, My Enemy*. A forthcoming manuscript by Jay Ahronson turns to the next frontier of DNA identification: disaster victim identification, or DVI, and focuses on the use of DNA in identifying victims from the Twin Towers after 9/11.

getting it right—for history, politics, and memory as much as for science—got higher, and the consequences of getting it wrong got ever more grave.

* * *

THE INTERNATIONAL CRIMINAL Tribunal for the former Yugoslavia is located at the World Forum in The Hague, The Netherlands, a mile and a half walk or tram ride down a tree-lined street from the center of the city. Along the wide, grassy median, dozens of country flags fly, their cheerful colors brightening up a strip of buildings in various shades of grey. The ICTY is on the Churchillplein, or Churchill square, along with an imposing Novotel hotel, where witnesses often stay, and a geometric wonder of a Europol building, whose shape recalls the blocky pyramid of blinking lights that plot out a pre-programmed hill workout on a treadmill. In the middle of the Churchillplein a fountain cheerfully shoots jets of water into the air, and an abstract metal sculpture of a feather juts into the air. The ICTY itself is in an old insurance building with an imposing tan brick facade adorned with decorative railings and details made of poured concrete. The overall effect of the building is at once stodgy and ornate, lavish and run down.

I sat in Courtroom 1 for hours, as the hearing focused on the minutest of details from witnesses' testimonies and statements: spelling, grammar, dates. Mladic sat on the left side of the courtroom, in the back row, behind his counsel. He was almost unrecognizable from the videos Serb reporters took on the day Mladic swaggered through the empty streets of Srebrenica, tan and burly in a military uniform. Now, he sat in the courtroom looking much older, tall and thin with a head of white hair combed neatly back to reveal a receding hairline. Wire-rimmed glasses perched on his pointed nose. Two guards, again in light blue shirts, flanked him in swivel chairs. The words that came to mind watching him were not the banality of evil, but the banality of justice. I found myself thinking on several occasions, "what is the point of this?" This was especially true when I looked hard at Mladic, who looked more like a college professor than a war criminal, or when the parties spent seemingly interminable time on grammatical questions. I had to remind myself: Srebrenica is the point of this.

The public gallery in Courtroom 1 can accommodate upwards of 80 visitors. When I visited, though, six weeks into Mladic's defense team's presentation, there was only one other person there: a Bosnian journalist faithfully taking notes on the light green pages of a stenographer's pad. Five or six more would trickle in over the course of the hearing, until the floodgates opened with about an hour left in the day's hearing. Then, English-speaking tourists filed in, wearing blue lanyards that proclaimed their allegiance to a Hague-based walking tour company. These visitors—who had woven a stop at the ICTY into a day in The Hague that also included, perhaps, a trip to the Peace Palace, the historical seat of international law, or to the Escher Museum to pay homage to the great artist—made it all the harder for me to see the trial as an act of justice after atrocity, and Mladic as a war criminal on trial before the international community.

Yet the trial against General Mladic is a very real act of justice after atrocity, and the evidence that he is responsible for atrocities committed in Srebrenica is overwhelming. Like two men before him, Radislav Krstic and Radovan Karadzic, Mladic is charged with genocide in Srebrenica. And as

in the trials against Krstic and Karadzic, forensic evidence has been used in ample quantity on the part of the prosecution, both to establish that a genocide took place, and to connect the Bosnian Serb Army and its commanders to the crime. In 2001, Krstic, the former Commander of the Serbian Army's Drina Corps, became the first man convicted of genocide in connection with the Srebrenica massacre. The forensic evidence presented against him—including testimony from Haglund and other expert witnesses—helped to persuade the judges that the Bosnian Serb Army, and with it its commanders, was guilty of genocide. In the spring of 2016, Karadzic was also found guilty of genocide in Srebrenica. The trial chamber saw Karadzic's involvement in digging up and moving bodies—facts established through the efforts of forensic teams over the course of nearly two decades—to be further incriminating evidence; proof of the desire on the part of Karadzic and the Bosnian Serbs to hide their crimes.⁸⁶¹

The trial against Mladic, the highest-level commander to face charges of genocide in Srebrenica, is ongoing as of this writing. Judgment in his case is expected in March 2017, nearly 22 years after the events he is charged with occurred. It is so easy to forget about crimes committed even in the not-so-distant past, to let them fade into the history of humans who do terrible things to other humans. It would be easy to let war criminals—especially war criminals of the Mladic variety, who look harmless, even genteel—wash their hands of their crimes and get on with their lives. But as a prosecutor from an international criminal tribunal told me once, “it is the bodies that make the whole thing real.” The evidentiary depth and descriptive richness offered by forensic evidence is, in his mind, the intangible benefit of incorporating bodies and bones into international criminal prosecutions. As he put it, forensics could “make the judges care”: the bodies not only served to prove a fact about the crime, but also to showcase the moral transgression that crime represented. “In a Hague courtroom,” he told me, “it is easy to forget what it's all about. Concrete evidence,” like that provided by bodies, bones, graves, and the experts who work with them, “wakes us up and helps us refocus.”⁸⁶² Snow shared the same belief that forensic evidence could make the crimes on trial come alive. During his testimony at Argentina's Junta trial in 1985, “it caught their attention,” he remembered later, both that of the judges and the defendants. “The minute those bones went up, they all turned around.” The presence of bones “brought out the human aspect” of the crimes. “It is evidence,” he said, just a little flashier—“showing a little leg.”⁸⁶³

As I fought to focus on the greater import of the Mladic proceedings from the public gallery of the ICTY's Courtroom 1, I could see that both men were right. Bodies, the physical result of mass violence, are important not only for what they can prove legally. They are also important for what they bear witness to morally. When you have bodies, you have deaths, and when you have deaths, you can't forget that also you have killers. The bodies do not disappear, and once forensic scientists pull them from the earth, their very existence does not allow us to forget.

⁸⁶¹ International criminal prosecutor in conversation with the author, October 2012.

⁸⁶² International criminal prosecutor in conversation with the author, October 2012.

⁸⁶³ “Interview with Clyde Snow, April 4, 1988,” ESPA.

BIBLIOGRAPHY

The following works cited have been subdivided into three sections: Books; Articles and Chapters; and Other Published Material. The third section includes NGO reports, United Nations and other governmental reports, and laws, statutes, and resolutions cited.

BOOKS

Aarons, Mark. *Sanctuary: Nazi Fugitives in Australia*. Port Melbourne, Vic., AU: W. Heinemann Australia, 1989.

Aarons, Mark. *War Criminals Welcome: Australia, a Sanctuary for Fugitive War Criminals Since 1945* (Port Melbourne, Vic., AU: Black Ink, Inc., 2001).

Abarinov, Vladimir. *The Murderers of Katyn*. New York: Hippocrene Press, Inc., 1991.

Andersen, Martin Edwin. *Dossier Secreto: Argentina's Desaparecidos and the Myth of the "Dirty War"*. Boulder: Westview Press, 1993.

Annas, George J., and Michael A. Grodin. *The Nazi Doctors and the Nuremberg Code: Human Rights in Human Experimentation*. New York: Oxford University Press, 1998.

Arendt, Hannah. *Eichmann in Jerusalem: A Report on the Banality of Evil*. New York: Viking, 1964.

Aronson, Jay. *Genetic Witness: Science, Law, and Controversy in the Making of DNA Profiling*. New Brunswick, NJ: Rutgers University Press, 2007.

Bevan, David. *A Case to Answer: The Story of Australia's First European War Crimes Prosecution*. Kent Town, South Australia: Wakefield Press, 1994.

Böhler, Jochen. *Auftakt zum Vernichtungskrieg: Die Wehrmacht in Polen 1939*. Frankfurt: Fischer Taschenbuch Verlag, 2006.

Borgwardt, Elizabeth. *A New Deal for the World: America's Vision for Human Rights*. Cambridge, MA: Belknap/Harvard, 2005.

Bourdieu, Pierre. *Outline of a Theory of Practice*. Cambridge: Cambridge University Press, 1977.

Bruno, Andy. *The Nature of Soviet Power: An Arctic Environmental History*. Cambridge: Cambridge University Press, 2016).

Brysk, Alison. *The Politics of Human Rights in Argentina: Protest, Change, and Democratization*. Stanford, CA: Stanford University Press, 1994.

- Burawoy, Michael, Joseph A. Blum, Sheba George, Zsuzsa Gille, and Millie Thayer. *Global Ethnography: Forces, Connections, and Imaginations in a Postmodern World*. Berkeley: University of California Press, 2000.
- Caiati, Maria Cristina, and Daniel Frontalini. *El Mito de la Guerra Sucia*. Buenos Aires: Centro de Estudios Legales y Sociales, 1984.
- Caplan, Leslie. *The Road to the Menzies Inquiry: Suspected War Criminals in Australia* (Darlington, N.S.W., AU: Australian Jewish Historical Society, 2012).
- Caspar, Johann Ludwig, and George William Balfour, trans. *A Handbook of the Practice of Forensic Medicine from Personal Experience*, Vol. 1: Thanatological Edition. London: The New Syndham Society, 1861.
- Chodakiewicz, Marek Jan. *Between Nazis and Soviets: Occupation Politics in Poland, 1939–1947*. Lanham, MD: Lexington Books, 2004.
- Churchill, Winston. *The Hinge of Fate*. London: Cassell & Co., Ltd., 1951.
- Cienciala, Anna M., Natalia S. Lebedeva, and Wojciech Materski, eds. *Katyn: A Crime Without Punishment*. New Haven, CT: Yale University Press, 2007.
- Cigar, Norman. *Indictment at The Hague: the Milošević regime and crimes of the Balkan Wars*. New York: New York University Press, 2002.
- Cohen, Jared. *One Hundred Days of Silence: America and the Rwanda Genocide*. Lanham, MD: Rowman & Littlefield Publishers, Inc., 2006.
- Combs, Nancy. *Fact Finding Without Facts: The Uncertain Evidentiary Foundations of International Criminal Tribunals*. Cambridge: Cambridge University Press, 2010.
- Crossan, John Dominic. *Jesus: A Revolutionary Biography*. New York: Harper Collins, 1994.
- Danner, Mark. *The Massacre at El Mozote: A Parable of the Cold War*. New York: Vintage Books, 1993.
- Davies, Kevin, and Michael White. *Breakthrough: The Race to Find the Breast Cancer Gene*. New York: John Wiley & Sons, Inc., 1995.
- Debons, Delphine, Antoine Fleury, and Jean-François Pitteloud, eds. *Katyn et la Suisse : experts et expertises médicales dans les crises humanitaires 1920-2007*. Geneva: Georg Editeur, 2009.
- Delpla, Isabelle, Xavier Bougarel, and Jean-Louis Fournel. *Investigating Srebrenica: Facts, Institutions, and Responsibilities*. New York: Berghahn Books, 2012.
- Des Forges, Alison. *Leave None to Tell the Story: Genocide in Rwanda*. New York: Human Rights Watch, 1999.

- Deutsch, Sandra McGee, and Ronald Dolkart, eds. *The Argentine Right: Its History and Intellectual Origins, 1910-present*. Lanham, MD: Rowman & Littlefield Publishers, 1992.
- Eley, Geoff, and David Blackbourn. *The Peculiarities of German History: Bourgeois Society and Politics in Nineteenth Century Germany*. Oxford: Oxford University Press, 1984.
- Etkind, Alexander, Rory Finnin, Uilleam Blacker, Julie Fedor, Simon Lewis, Maria Mälksoo, and Matilda Mroz. *Remembering Katyn*. Cambridge, UK: Polity, 2014.
- Feitlowtiz, Marguerite. *A Lexicon of Terror: Argentina and the Legacies of Torture*. New York: Oxford University Press, 1998.
- Ferguson, Niall, Charles S. Maier, Erez Manela, and Daniel J. Sargent. *The Shock of the Global: The 1970s in Perspective*. Cambridge: Harvard University Press, 2010.
- Fitzgibbon, Louis. *Katyn Massacre*. London: Corgi, 1977.
- Fitzgibbon, Louis. *Katyn: A Crime Without Parallel*. London: Tom Stacey Ltd., 1971.
- Fitzgibbon, Louis. *Katyn: A Triumph of Evil*. London: Anna Livia Books, 1975.
- Fitzgibbon, Louis. *Katyn*. London: Tom Stacey Ltd., 1971.
- Fitzgibbon, Louis. *The Katyn Cover-up*. London: Tom Stacey Ltd., 1972.
- Fitzgibbon, Louis. *Unpitied and Unknown: Katyn*. London: Bachman and Turner, 1975.
- Flanzbaum, Hilene, ed. *The Americanization of the Holocaust*. Baltimore: Johns Hopkins University Press, 1999.
- Fraser, David. *Daviborshch's Cart: Narrating the Holocaust in Australian War Crimes Trials* (Lincoln, NE: University of Nebraska Press, 2010).
- Frickel, Scott. *Chemical Consequences: Environmental Mutagens, Scientist Activism, and the Rise of Genetic Toxicology*. New Brunswick, NJ: Rutgers University Press, 2004).
- Fridell, Ron. *Solving Crimes: Pioneers of Forensic Science*. New York: Franklin Watts, 2000.
- Glendon, Mary Ann. *A World Made New: Eleanor Roosevelt and the Universal Declaration of Human Rights*. New York: Random House, 2001.
- Goldstone, Richard. *For Humanity: Reflections of a War Crimes Investigator*. New Haven: Yale University Press, 2000.
- Gourevitch, Philip. *We Wish to Inform You That Tomorrow We Will be Killed with our Families*. New York: Picador, 1999.

- Gourevitch, Philip. *We Wish to Inform You That Tomorrow We Will Be Killed with our Families: Stories from Rwanda*. New York: Farrar Straus and Gireaux, 1998.
- Greble, Emily. *Sarajevo, 1941-1945: Muslims, Christians, and Jews in Hitler's Europe*. Ithaca, NY: Cornell University Press, 2011.
- Guest, Iain. *Behind the Disappearances: Argentina's Dirty War Against Human Rights and the United Nations*. Philadelphia, PA: University of Pennsylvania Press, 1990.
- Gutman, Israel. *Resistance: The Warsaw Ghetto Uprising*. New York: Mariner, 1998.
- Hargreaves, Richard. *Blitzkrieg Unleashed: The German Invasion of Poland, 1939*. Mechanicsburg, PA: Stackpole Books, 2010.
- Hartmann, Christian. *Operation Barbarossa: Nazi Germany's War in the East, 1941-1945*. London: Oxford University Press, 2013.
- Hellbeck, Jochen. *Revolution on my Mind: Writing a Diary Under Stalin*. Cambridge, MA: Harvard University Press, 2008.
- Helmer, Richard P. *Schädelidentifizierung durch elektronische Bildmischung*. Heidelberg: Kriminalistik Verlag, 1984.
- Henkin, Louis, Sarah Cleveland, Laurence Helfer, Gerald Neuman, Diane Orentlicher. *Human Rights*. 2nd. Ed. (University Casebook Series). New York: Thompson Reuters/Foundation Press, 1999.
- Henkin, Louis. *The Age of Rights*. New York: Columbia University Press, 1990.
- Herber, Friedrich. *Gerichtsmedizin unterm Hakenkreuz*. Leipzig: Militzke, 2002.
- Héricart-Ferrand, Louis Étienne François, ed. *Description des catacombes de Paris, précédée d'un précis historique sur les catacombes de tous les peuples de l'ancien et du nouveau continent*. Charleston, SC: Nabu Press, 2010.
- Hiltermann, Joost. *A Poisonous Affair: America, Iraq, and the Gassing of Halabja*. New York: Cambridge University Press, 2007.
- Holbrooke, Richard. *To End a War* (New York: Random House, 1998).
- Honig, Jan, and Norbert Both. *Srebrenica: Record of a War Crime*. New York: Penguin Books, 1997.
- Hunt, Lynn. *Inventing Human Rights: A History*. New York: W.W. Norton and Company, 2007.
- Iriye, Akira, Petra Goedde, and William I. Hitchcock. *The Human Rights Revolution: An International History*. New York: Oxford University Press, 2012.

Iriye, Akira. *Global Community: The Role of International Organizations in the Making of the Contemporary World*. Berkeley, CA: University of California Press, 2002.

Iscan, Mehmet Yasar, and Richard P. Helmer, eds, *Forensic Analysis of the Skull: Craniofacial Analysis, Reconstruction, and Identification*. New York: Wiley-Liss, 1993.

Ishay, Michelene. *The History of Human Rights: From Ancient Times to the Globalization Era*. Berkeley, CA: University of California Press, 2008.

Jennings, Christopher. *Bosnia's Million Bones: Solving the World's Greatest Forensic Puzzle*. New York: St. Martin's Press, 2013.

Jones, Colin. *Paris: Biography of a City*. New York: Viking, 2004.

Jones, Dorothy V. *Toward A Just World: The Critical Years in the Search for International Justice*. Chicago: The University of Chicago Press, 2002.

Jović, Dejan. *Yugoslavia: A State that Withered Away*. West Lafayette, IN: Purdue University Press, 2009.

Joyce, Christopher, and Eric Stover. *Witnesses From the Grave: The Stories Bones Tell*. Boston: Little Brown, 1991.

Keenan, Thomas, and Eyal Weizman. *Mengele's Skull: The Advent of a Forensic Aesthetics*. Berlin: Sternberg Press, 2012.

Kelley, Michael J. *Ghosts of Halabja: Saddam Hussein and the Kurdish Genocide*. Santa Barbara, CA: Praeger Security International, 2008.

Kittel, Gerhard. *Theological Dictionary of the New Testament: Abridged into One Volume*. Cambridge: Wm.B. Eerdmans Publishing Co., 1985.

Klee, Ernst. *Das Personenlexikon zum Dritten Reich: wer war was vor und nach 1945?*. Frankfurt am Main: S. Fischer, 2003.

Kochanski, Halik. *The Eagle Unbowed: Poland and the Poles in the Second World War*. London: Allen Lane, 2012.

Koff, Clea. *The Bone Woman: A Forensic Anthropologist's Search for Truth in the Mass Graves of Rwanda, Bosnia, and Kosovo*. New York: Random House, 2004.

Kuperman, Alan. *The Limits of Humanitarian Intervention: Genocide in Rwanda*. Washington, D.C., 1996.

Lane, Arthur Bliss. *I Saw Poland Betrayed: An American Ambassador Reports to the American People*. New York: Bobbs-Merrill, 1948.

Laqueur, Thomas. *The Work of the Dead: A Cultural History of Mortal Remains*. Princeton, NJ: Princeton University Press, 2015.

- Lauck, John H. *Katyn Killings: In the Record*. Clifton, NJ: Kingston Press, 1988.
- Lauren, Paul Gordon. *Visions Seen: The Evolution of International Human Rights*. Philadelphia, PN: University of Pennsylvania Press, 1998.
- Lewis, Paul H. *Guerrillas and Generals: The "Dirty War" in Argentina*. Westport, CT: Praeger, 2002.
- Loftus, Elizabeth. *Eyewitness Testimony*. Cambridge: Harvard University Press, 1979.
- Longren, Timothy. *Christianity and Genocide in Rwanda*. New York: Cambridge University Press, 2011.
- Lynn, Sophia. *The Myrna Mack Case: An Update*. Washington, D.C.: National Academy Press, 1998.
- Mackiewicz, Joseph. *The Katyn Wood Murders*. London: Montgomeryshire Printing Company, 1951.
- Malkki, Liisa. *Purity and Exile: Violence, Memory, and National Cosmology among Hutu Refugees in Tanzania*. Chicago: University of Chicago Press, 1995.
- Mamdani, Mahmood. *When Victims Become Killers: Colonialism, Nativism, and the Genocide in Rwanda*. Princeton, NJ: Princeton University Press, 2002.
- Manzetti, Luigi. *Institutions, Parties, and Coalitions in Argentine Politics*. Pittsburgh: University of Pittsburgh Press, 1993.
- Meicelas, Susan. *El Salvador: The Work of Thirty Photographers*. New York: Pantheon, 1983.
- Meicelas, Susan. *Kurdistan: In the Shadow of History*. Chicago, University of Chicago Press, 2008.
- Mosse, George. *Fallen Soldiers: Shaping the Memory of the World Wars*. New York: Oxford University Press, 1990.
- Moyn, Samuel. *Christian Human Rights*. Philadelphia: University of Pennsylvania Press, 2015.
- Moyn, Samuel. *The Last Utopia: Human Rights in History*. Cambridge, MA: Belknap/Harvard University Press, 2010.
- Neier, Aryeh. *War Crimes: Brutality, Genocide, Terror, and the Struggle for Justice*. New York: Times Books, 1998.
- Neier, Aryeh. *War Crimes: Brutality, Genocide, Terror, and the Struggle for Justice*. New York: Times Books, 1998.
- Neuffer, Elizabeth. *The Key to My Neighbor's House: Seeking Justice in Bosnia and Rwanda*. New York: Picador USA, 2001.
- Novick, Peter. *The Holocaust in American Life*. Boston: Houghton Mifflin, 1999.

- O'Collins, Gerald. *Christology: A Biblical, Historical, and Systematic Study of Jesus*. New York: Oxford University Press, 2009.
- Owen, David. *Balkan Odyssey*. New York: Harcourt Brace, 1995.
- Parenti, Michael. *To Kill a Nation: The Attack on Yugoslavia*. London: Verso Books, 2002.
- Paul, Allen. *Katyn*. New York: Charles Scribner's Sons, 1991.
- Paulsson, Gunnar S. *Secret City: The Hidden Jews of Warsaw, 1940–1945*. New Haven: Yale University Press, 2002.
- Posner, Gerald L., and John Ware. *Mengele: The Complete Story*. New York: Cooper Square Press, 2000.
- Power, Samantha. *A Problem From Hell: America in the Age of Genocide*. New York: Basic Books, 2002.
- Priemel, Kim C., and Alexa Stiller, eds. *Reassessing the Nuremberg Military Tribunals: Transitional Justice, Trial Narratives, and Historiography*. New York and Oxford: Berghahn Books, 2012.
- Prunier, Gerard. *The Rwanda Crisis: A History of a Genocide*. New York: Columbia University Press, 1995.
- Ramet, Sabrina P. *Thinking about Yugoslavia: Scholarly Debates about the Yugoslav Breakup and the Wars in Bosnia and Kosovo*. New York: Cambridge University Press, 2005.
- Renshaw, Leyla. *Exhuming Loss: Memory, Materiality, and Mass Graves of the Spanish Civil War*. Walnut Creek, CA: Left Coast Press, 2011.
- Reynolds, David. *One World Divisible: A Global History Since 1945*. London: W.W. Norton & Company, 2000.
- Robben, Antonius C. G. M. *Political Violence and Trauma in Argentina*. Philadelphia: University of Pennsylvania Press, 2005.
- Robertson, Geoffrey. *Crimes Against Humanity: The Struggle for Global Justice*. New York: The New Press, 1999.
- Rodhe, David. *Endgame: The Betrayal and Fall of Srebrenica, Europe's Worst Massacre Since World War II*. New York: Penguin, 1997.
- Rosenblatt, Adam. *Digging For the Disappeared: Forensic Science After Atrocity*. Stanford, CA: Stanford University Press, 2015.
- Rubenstein, Joshua, and Ilya Altman, eds. *The Unknown Black Book: The Holocaust in German-Occupied Soviet Territories*. Bloomington, IN: Indiana University Press, 2010.
- Sands, Phillippe, ed. *From Nuremberg to The Hague: The Future of International Criminal Justice*. New York: Cambridge University Press, 2003.

- Sanford, George. *Katyn and the Soviet Massacre of 1940: Truth, Justice and Memory*. New York: Routledge, 2005.
- Sanford, Victoria. *Buried Secrets: Truth and Human Rights in Guatemala*. New York: Palgrave MacMillan, 2003.
- Sant Cassia, Paul. *Bodies of Evidence: burial, memory and the recovery of missing persons in Cyprus*. New York: Berghahn Books, 2005.
- Shainberg, Maurice. *The KGB Solution at Katyn*. Franklin Lakes, NJ: Lincoln Springs Press, 1989.
- Shandler, Jeffrey. *While America Watches: Televising the Holocaust*. Oxford: Oxford University Press, 1999.
- Silber, Laura, and Alan Little. *Yugoslavia: Death of a Nation*. New York: Penguin, 1995.
- Steadman, Dawnie Wolfe. *Hard Evidence: Case Studies in Forensic Anthropology*. New York: Routledge, 2016.
- Stoller, Ann Laura. *Along the Archival Grain: Epistemic Anxieties and Colonial Common Sense*. Princeton, NJ: Princeton University Press, 2010.
- Stover, Eric, and Gilles Peress. *The Graves: Srebrenica and Vukovar*. Zurich: Scalo, 1998.
- Stover, Eric, and Harvey M. Weinstein. *My Neighbor, My Enemy: Justice and Community in the Aftermath of Mass Atrocity*. Cambridge: Cambridge University Press, 2004.
- Stover, Eric, Victor Peskin, and Alexa Koenig. *Hiding in Plain Sight: The Pursuit of War Criminals from Nuremberg to the War on Terror*. Berkeley, CA: University of California Press, 2016.
- Struett, Michael. *The Politics of Constructing the International Criminal Court: NGOs, Discourse, and Agency*. New York: Palgrave Macmillan, 2008.
- Stuckey, Mary E. *Jimmy Carter, Human Rights, and the National Agenda*. College Station, TX: Texas A&M University Press, 2008.
- Thornton, Richard C. *The Falklands sting: Reagan, Thatcher, and Argentina's bomb*. Washington: Brassey's, 1998.
- Thouret, Jacques-Guillaume. *Rapport sur les exhumations du cimetière et de l'église des Saints Innocents, lu dans la séance de la Société royale de médecine tenue au Louvre le 3 mars 1789*. Paris: impr. de Ph.-D. Pierres, 1789.
- Wagner, Sarah E. *To Know Where He Lies: DNA Technology and the Search for Srebrenica's Missing*. Berkeley, CA: University of California Press, 2008.
- White, Hayden. *The Content of the Form: Narrative Discourse and Historical Representation*. Baltimore: Johns Hopkins University Press, 1987.

Wilson, Richard. *The Politics of Truth and Reconciliation in South Africa: Legitimizing the Post-Apartheid State*. Cambridge: Cambridge University Press, 2001.

Zawodny, J. K. *Death in the Forest*. Notre Dame, IN: University of Notre Dame Press, 1962.

Zdzislaw, Stahl, ed. *The Crime of Katyn: Facts & Documents*. London: Polish Cultural Foundation, 1965.

ARTICLES AND CHAPTERS

Baines, Katie Nicoll, Susan Esmond, and Roos Eisma. "Stature." In *Forensic Anthropology, 2000 to 2010*, edited by Sue Black and Elidh Ferguson, 95-118. Boca Raton, FL: Taylor & Francis, 2011.

Balke, Bruno and Clyde Snow. "Anthropological and Physiological Observations on Tarahumara Endurance Runners." *Journal of Forensic Anthropology* 23 no. 3 (1965): 293-301.

Bassiouni, M. Cherif. "The United Nations Commission of Experts Established Pursuant to Security Council Resolution 780 (1992)." *The American Journal of International Law* 88 no. 4 (1994).

Bernardi, Patricia, and Luis Fondebrider. "Forensic Archaeology and the Scientific Documentation of Human Rights Violations: An Argentinian Example from the Early 1980s." In *Forensic Archaeology and Human Rights Violations*, edited by Roxana Ferlini, 205-232. Springfield, IL: Charles C. Thomas Publisher, Ltd., 2007.

Black, Allida. "Are Women 'Human'? The UN and the Struggle to Recognize Women's Rights as Human Rights." In *The Human Rights Revolution: An International History*, edited by Akira Iriye, Petra Goedde, and William I. Hitchcock, 133-158. New York: Oxford University Press, 2012.

Bradley, Mark Phillip. "Approaching the Universal Declaration of Human Rights." In *The Human Rights Revolution: An International History*, edited by Akira Iriye, Petra Goedde, and William I. Hitchcock, 327-344. New York: Oxford University Press, 2012.

Brenner, Sydney. "The Genetics of *Caenorhabditis elegans*." *Genetics* 77 no. 1 (1974): 71-94.

Bristow, Joanne, Zoe Simms, Dr. Patrick Randolph-Quinney. "Taphonomy." In *Forensic Anthropology: 2000-2010*, edited by Sue Black and Elidh Ferguson, 279-318. Boca Raton, FL: Taylor & Francis, 2011.

Christina Bellelli and Jeffrey Toobin, "Archaeology of the Desaparecidos," *Society for American Archaeology*, March/April 1996, Vol. 14(2). URL: <http://www.saa.org/portals/0/saa/publications/saabulletin/14-2/index.html>. Accessed September 15, 2015.

Clark, Michael A., Michael B. Worrell and John E. Pless. "Postmortem changes in Soft Tissue." In *Forensic Taphonomy: The Postmortem Fate of Human Remains*, edited by William Haglund and Marcella H. Sorg, 151-164. Boca Raton, FL: CRC Press LLC, 1997.

Cmiel, Kenneth. "The Recent History of Human Rights." *American Historical Review*, 109 no. 1 (2004): 117-135.

Cohen, G. Daniel. "The Holocaust and the 'Human Rights Revolution': A Reassessment." In *The Human Rights Revolution: An International History*, edited by Akira Iriye, Petra Goedde, and William I. Hitchcock, 53-72. New York: Oxford University Press, 2012.

Cole, Simon A. and Rachel Dioso-Villa. "Investigating the 'CSI Effect' Effect: Media and Litigation Crisis in Criminal Law." *Stanford Law Review* 69 no. 6 (2009): 1335-1374.

Cook, Susan. "The Politics of Preservation in Rwanda." In *Genocide in Cambodia and Rwanda: New Perspectives*, edited by Susan Cook, 281-299. New Brunswick, NJ: Transaction Publishers, 2006.

Crossland, Zoe. "Of Clues and Signs: The Dead Body and Its Evidential Traces." *American Anthropologist* 111 (2009): 69-80.

Crossland, Zoe. "Violent Spaces: conflict over the reappearance of Argentina's Disappeared." In *Matériel Culture: The Archaeology of Twentieth-Century Conflict*, edited by Colleen M. Beck, William Gray Johnson, and John Schofield, 115-131. London: Routledge, 2002.

Crown, David A. "Practical Aspects of the Mengele Handwriting Examination." *Journal of Forensic Science Society* 27 (1987): 13-28.

Dawson, Charlotte, Duncan Ross, and Xanthe Mallett. "Sex Determination." In *Forensic Anthropology: 2000-2010*, edited by Sue Black and Elidh Ferguson, 61-94. Boca Raton, FL: Taylor & Francis, 2011.

Devisser, Elizabeth M., Krista E. Latham, and Marisol Intriago Lieva. "The contribution of forensic anthropology to national identity in Chile: a case study from the Patio 29 mass grave." *American Journal of Physical Anthropology* 147 (2012): 130-130.

Doyle, Kate. "Justice in Guatemala." *NACLA Report on the Americas* 45 no. 1 (2012): 37-42.

Eckel, Jan. "Explaining the Human Rights Revolution of the 1970s." In *The Breakthrough: Human Rights in the 1970s*, edited by Samuel Moyn and Jan Eckel, 226-260. Philadelphia: University of Pennsylvania Press, 2013.

Eckel, Jan. "The Rebirth of Politics from the Spirit of Morality: Explaining the Human Rights Revolution of the 1970s." In *The Breakthrough: Human Rights in the 1970s*, edited by Samuel Moyn and Jan Eckel, 226-260. Philadelphia: University of Pennsylvania Press, 2013.

García-Sancho, Miguel. "Genetic Information in the Age of DNA Sequencing." *Information & Culture: A Journal of History* 50 no. 1 (2015): 110-142.

- Gieras, Jacek F. "Selected Technical Aspects of TU-154M Smolensk Air Crash on April 10, 2010." *Mathematical and Computational Forestry & Natural-Resource Sciences* 5 no. 1 (2013): 38–70.
- Goldhagen, Daniel Jonah. *Hitler's Willing Executioners: Ordinary Germans and the Holocaust*. New York: Knopf, 1996.
- Guyer, Sara. "Rwanda's Bones." In *The Future of Memory*, edited by Richard Crownshaw, Jane Kilby, and Antony Rowland, 37-50. New York: Berghahn Books, 2009.
- Hagelberg, Erika, and J. B. Clegg. "Isolation and Characterization of DNA from Archaeological Bone." *Proceedings: Biological Sciences* 244 no. 1309 (1991): 45-50.
- Haglund, William D., Melissa Connor, and Douglass D. Scott. "Archaeologists as Forensic Investigators: Defining the Role." *Historical Archaeology* 35, no. 1 (2001): 57-69.
- Hanson, Ian. "Forensic Archaeology: Approaches to International Investigations." In *Archaeology and Bioanthropology of Gravesites*, forthcoming.
- Hay, Alastair and Gwynne Roberts. "The Use of Poison Gas Against the Iraqi Kurds: Analysis of Bomb Fragments, Soil, and Wool Samples." *Journal of the American Medical Association* 263 no. 8 (1990): 1065-1066.
- Helmer, R. P., "Identification of the Cadaver Remains of Josef Mengele," *Journal of Forensic Sciences* 32 no. 6 (1987): 1622-1644.
- Hirrel, Leo P. "The Beginnings of the Quartermaster Graves Registration Service." *Army Sustainment* 46 (2014): 64-67.
- Hoffmann, Stefan-Ludwig. "Genealogies of Human Rights." In *Human Rights in the Twentieth Century*, edited by Stefan-Ludwig Hoffmann, 1-29. New York: Cambridge University Press, 2011.
- Kelley, M. A. "Parturition and pelvic changes." *American Journal of Physical Anthropology* 51 (1979): 541–545.
- Kelly, Michael J. "The Anfal Trial Against Saddam Hussein." *Journal of Genocide Research* 9 no. 2 (2007): 235–242.
- King, Mary-Claire. "An application of DNA sequencing to a human rights problem." *Molecular Genetic Medicine* 1 (1991): 117-31.
- King, Mary-Claire. "An application of DNA sequencing to a human rights problem." *Molecular Genetic Medicine* 1 (1991): 117-131.
- Komar, Debra "Patterns of Mortuary Practice Associated with Genocide: Implications for Archaeological Research," *Current Anthropology*, 49 no. 1 (2008): 123-133.
- Krauland, W. "The History of the German Society for Forensic Medicine." *Forensic Science International* 144 (2004): 95-108.

Kubica, Helena. "The Crimes of Josef Mengele." In *Anatomy of the Auschwitz Death Camp*, edited by Yisrael Gutman and Michael Berenbaum, 317-337. Bloomington, IN: Indiana University Press, 1998.

Laqueur, Thomas. "The Dead Body and Human Rights." In *The Body*, edited by Sean Sweeney and Ian Hodder, 75-93. Cambridge: Cambridge University Press, 2002.

Lewis, Paul. "The Right and Military Rule." In *The Argentine Right: Its History and Intellectual Origins, 1910-present*, edited by Sandra McGee Deutsch and Ronald Dolkart, 119-146. Lanham, MD: Rowman & Littlefield Publishers, 1992.

Lignitz, E. "The History of Forensic Medicine in times of the Weimar Republic and National Socialism—an Approach." *Forensic Science International* 144 (2004): 113-124.

Lockyer, Nicholas, Iain Armstrong, and Sue Black. "Bone Pathology." In *Forensic Anthropology, 2000 to 2010*, edited by Sue Black and Elidh Ferguson, 237-278. Boca Raton, FL: Taylor & Francis, 2011.

Lonardo, Ana Maria Di, Pierre Darlu, Max Baur, Cristian Orrego, and Mary-Claire King. "Human genetics and human rights: Identifying the families of kidnapped children." *American Journal of Forensic Medicine & Pathology* 5 no. 4 (1984): 339-347.

Malkki, Liisa. "Speechless Emissaries: Refugees, humanitarianism, and dehistoricization." *Cultural Anthropology* 11 no. 3 (1996): 377-404.

Manela, Erez. "Smallpox Eradication and the Rise of Global Governance." In *The Shock of the Global: The 1970s in Perspective*, edited by Niall Ferguson, Charles S. Maier, Erez Manela, and Daniel J. Sargent, 251-262. Cambridge, MA: Belknap/Harvard University Press, 2010.

Maul, Daniel Roger. "The International Labour Organization and the Globalization of Human Rights, 1944-1970." In *Human Rights in the Twentieth Century*, edited by Stefan-Ludwig Hoffmann, 301-320. New York: Cambridge University Press, 2011.

McCormick, David. "Inventing military dog tags." *America's Civil War* 25, no. 2 (May 2012): 56-59.

McCorquodale, Robert, and Richard Fairbrother. "Globalization and Human Rights." *Human Rights Quarterly* 21, no. 3 (1999): 735-766.

McNeill, J.R. "The Environment, Environmentalism, and International Society in the Long 1970s." In *The Shock of the Global: The 1970s in Perspective*, edited by Niall Ferguson, Charles S. Maier, Erez Manela, and Daniel J. Sargent, 263-280. Cambridge, MA: Belknap/Harvard University Press, 2010.

Mettraux, Guénaél. "Judicial Inheritance: The Value and Significance of the Nuremberg Trial to Contemporary War Crimes Tribunals." In *Perspectives on the Nuremberg Trial*, edited by Guénaél Mettraux, 599-616. Oxford: Oxford University Press, 2008.

Michael Cotey Morgan, "The Seventies and the Rebirth of Human Rights." In *The Shock of the Global: The 1970s in Perspective*, edited by Niall Ferguson, Charles S. Maier, Erez Manela, and Daniel J. Sargent, 237-250. Cambridge, MA: Belknap/Harvard University Press, 2010.

Møller-Christensen, V., and W. H. Jopling. "An examination of the skulls in the catacombs of Paris." *Medical history* 8, no. 02 (1964): 187-188.

Morgan, Michael Cotey. "The Seventies and the Rebirth of Human Rights." In *The Shock of the Global: The 1970s in Perspective*, edited by Niall Ferguson, Charles S. Maier, Erez Manela, and Daniel J. Sargent, 237-250. Cambridge, MA: Belknap/Harvard University Press, 2010.

Moyn, Samuel. "Substance, Scale, and Salience: The Recent Historiography of Human Rights." *Annual Review of Law and Social Science* 8 (2012): 123-140.

Mozes-Kor, Eva. "Mengele Twins and Human Experimentation: A Personal Account," in *The Nazi Doctors and the Nuremberg Code: Human Rights in Human Experimentation*, edited by George J. Annas and Michael A. Grodin, 53-59. New York: Oxford University Press, 1998.

Oliver, John Rathbone. "Legal Medicine in Europe and America." *American Bar Association Journal* 18, no. 6 (1932): 405-22.

Olmo, Dario, Anahi Ginarte, Claudia Bisso, Mercedes Salado Puerto, and Luis Fondebrider. "A Mass Grave in Argentina: The San Vicente Cemetery in Cordoba." In *Hard Evidence: Case Studies in Forensic Anthropology*, edited by Dawnie Wolfe Steadman, 321-31. New York: Routledge, 2016.

Orsos, Ferenc F. "Posmortale Decalcination, Caries, und Pseudocallusbildung." *Deutsche Zeitschrift für die Gesamte Gerichtliche Medizin* 43 no. 1-2 (1954): 47-53.

Paperno, Irina. "Exhuming the Bodies of Soviet Terror." *Representations* 75 no. 1 (2001): 89-118.

Pendas, Devin O. "Toward World Law? Human Rights and the Failure of the Legalist Paradigm of War." In *Human Rights in the Twentieth Century*, edited by Stefan-Ludwig Hoffmann, 215-236. New York: Cambridge University Press, 2011.

Powell, Mark Allen. "Evangelical Christians and Historical-Jesus Studies: Final Reflections." *Journal for the Study of the Historical Jesus* 9 (2011): 124-136.

Robert Szymczak. "Cold War Crusader: Arthur Bliss Lane and the Private Committee to Investigate the Katyn Massacre, 1949-1952." *Polish American Studies* 67 no. 2 (2010): 5-33.

Roth, Kenneth. "Introduction." in *Crimes Against Humanity: The Struggle for Global Justice*, edited by Geoffrey Robertson, xxv-xli. New York: The New Press, 1999.

Ruez, Jean Rene. "The ICTY Investigations." In *Investigating Srebrenica: Institutions, Facts, Responsibilities*, edited by Isabelle Delpla, Xavier Bougarel, Jean-Louis Fournel, 23-39. Oxford: Berghahn Books, 2012.

Sargent, Daniel. "The United States and Globalization in the 1970s." In *The Shock of the Global: The*

1970s in Perspective, edited by Niall Ferguson, Charles S. Maier, Erez Manela, and Daniel J. Sargent, 49-64. Cambridge, MA: Belknap/Harvard University Press, 2010.

Shannon, Kelly J. "The Right to Bodily Integrity: Women's Rights as Human Rights in the International Movement to End Female Genital Mutilation, 1970s-1990s." In *The Human Rights Revolution: An International History*, edited by Akira Iriye, Petra Goedde, and William I. Hitchcock, 285-310. New York: Oxford University Press, 2012.

Snow CC, L Levine, L Lukash, LG Tedeschi, C Orrego, and E Stover. "The investigation of the human remains of the 'disappeared' in Argentina." *The American Journal of Forensic Medicine and Pathology* 5 no. 4 (1984): 297-299.

Snow, Clyde C. "Forensic Anthropology." *Annual Review of Anthropology* 11 (1982): 97-131.

Snow, Clyde. "Murder Most Foul." *Sciences* 35 (1995): 16-20.

Steele, Caroline. "Archaeology and the forensic investigation of mass graves." *Archaeologies: Journal of the World Archaeological Congress* 4 no. 3 (2008): 415-428.

Steinweis, Alan E. "The Auschwitz Analogy: Holocaust Memory and American Debates over Intervention in Bosnia and Kosovo in the 1990s." *Holocaust and Genocide Studies* 19, no. 2 (2005): 276-289.

Stover, Eric, and Rachel Shigekane. "The missing in the aftermath of war: When do the needs of victims' families and international war crimes tribunals clash?" *Revue Internationale de la Croix-Rouge/International Review of the Red Cross* 84, no. 848 (2002): 845-866.

Stuesse, Angela. "Si Hubo Genocidio: Anthropologists and the Genocide Trial of Guatemala's Ríos Montt." *American Anthropologist* 115 no. 4 (2013): 658-666.

Szymczak, Robert. "A Soviet Gamble: The Katyn Case at the Nuremberg Trials." *International Review of History and Political Science* 26 no. 4 (1989): 21-39.

Thomsen, Annemarie B., Jørgen Eriksen, and Knud Smidt-Nielsen. "Chronic neuropathic symptoms after exposure to mustard gas: A long-term investigation." *Journal of the American Academy of Dermatology* 39 no. 2 (1998): 187-190.

"Tragedy in the shtetl of Slavuta, Kamenets-Podolsky Region: The stories of Dr. Voitseshchuk, the Catholic priest Milevsky, the teacher Vysotskaya, the worker Fyodorova, and the metalworker Yenin, Recorded by Major Z. G. Ostrovsky, February 14, 1944." In *The Unknown Black Book: The Holocaust in German-Occupied Soviet Territories*, edited by Joshua Rubenstein and Ilya Altman, 165-167. Bloomington, IN: Indiana University Press, 2010.

Ubelaker, Douglas H. "Taphonomic Implications in Forensic Anthropology." In *Forensic Taphonomy: The Postmortem Fate of Human Remains*, edited by William Haglund and Marcella H. Sorg, 77-92. Boca Raton, FL: CRC Press LLC, 1997.

Vollen, Laurie. "All that Remains: Identifying the Victims of the Srebrenica Massacre." *Cambridge Quarterly of Healthcare Ethics* 10 (2001): 336-40.

Waldvogel F. A., G. Medoff, and M. N. Swartz. "Osteomyelitis: a review of clinical features, therapeutic considerations and unusual aspects." *The New England Journal of Medicine* 282 no. 4 (1970): 198-206.

Wecht, Cyril H. "Legal Medicine: An Historical View and a Future Perspective." *New York Law School Law Journal* 22, no. 873 (1976-1977): 873-903.

Weizman, Eyal. "Osteobiography: An Interview with Clyde Snow." *Cabinet* 43 (2011).

Wright, R., I. Hanson, and J. Sterenberg. "The Archaeology of Mass Graves." In *Forensic Archaeology: Advances in Theory and Practice*, edited by John Hunter and Margaret Cox, 137-158. New York: Routledge, 2005.

Wright, Richard. "Where are the bodies? In the Ground." *The Public Historian* 32 no. 1 (2010): 96-107.

OTHER PUBLISHED SOURCES

Amtliches Material zum Massenmord von Katyn: im Auftrage des Auswärtigen Amtes auf Grund urkundlichen Beweismaterials zusammengestellt. Berlin: Zentral Verlag der NSDAP, Franz Eher Nachf. 1943.

Amtliches Material zum Massenmord von Winniza. Berlin: Zentral Verlag der NSDAP, Franz Eher Nachf. 1944.

Beydoun, Ali. "Forensic Evidence Testimony Shows Guatemala Investigation's Strengths." Center for Human Rights and Humanitarian Law, 2013.

"Beyond Reasonable Doubt: Using Scientific Evidence to Advance Prosecutions at the International Criminal Court." Human Rights Center at Berkeley School of Law, 2010.

Black, George. *Genocide in Iraq: The Anfal Campaign Against the Kurds.* New York: Human Rights Watch, 1993.

"Bosnia-Herzegovina: The Missing of Srebrenica." Amnesty International, 1995.

Case of Myrna Mack Chang v. Guatemala, Series C No. 101, (IACrtHR, 2003).

"Comparing Medical Examiner and Coroner Systems," Committee for the Workshop on the Medicolegal Death Investigation System. Washington, D.C.: The National Academies Press, 2003.

Cook-Deegan, Robert Mullan, Howard Hu, and Asfandiar Shukri, *Winds of Death: Iraq's Use of Chemical Weapons Against its Kurdish Population.* Cambridge, MA: Physicians for Human Rights, 1989,

Davenport, David. "The New Diplomacy." Stanford, CA: Hoover Institution, 2002.
Disappeared: A Workbook. New York: Amnesty International, 1981.

El Diario del Juicio. 530 Horas: El Archivo Audiovisual del Juicio a las Juntas. Buenos Aires: Memoria Abierta. <http://www.memoriaabierta.org.ar/juicioalasjuntas/?p=179>

Etlin, Richard Allan. "The Cemetery and the City: Paris, 1744-1804." PhD diss., Princeton University. 1978.

Hearing of the Commission on Security and Cooperation in Europe: Regarding the Refugee Crisis and War Crimes. "Testimony of Eric Stover." January 25, 1993. <http://www.c-span.org/video/?37388-1/conflict-former-yugoslavia>

In the matter of Josef Mengele: A Report to the Attorney General of the United States. Washington, D.C.: U.S. Dept. of Justice, Criminal Division, 1992.

Interstate Aviation Committee Air Accident Investigation Commission: Final Report. Republic of Poland, 2010. URL: http://www.mak.ru/russian/investigations/2010/tu-154m_101/finalreport_eng.pdf

Iraqi Kurdistan: The Destruction of Koreme During the Anfal Campaign. Human Rights Watch, 1993. <http://www.hrw.org/reports/1992/iraqkor/index.htm>

Karbowski, Kazimierz. "Professeur Francois Naville (1883-1968): Son role dans l'enquête sur le massacre de Katyn." Geneva: Society of History and Archaeology, 2002.

Laub, Zachary "What is Sarin Gas?" The Council on Foreign Relations. Accessed May 2, 2016. <http://www.cfr.org/weapons-of-mass-destruction/sarin/p9553>.

Mack, Myrna. *Assistance and Control: Policies Toward Internally Displaced Populations in Guatemala*. Washington, D.C.: Center for Immigration Policy and Refugee Assistance, Georgetown University, 1990.

MacLean, Emi. *Judging a Dictator: The trial of Efraín Ríos Montt*. Open Society Justice Initiative, 2013.

Manning, Dean. "Srebrenica Investigation: Summary of Forensic Evidence—Execution Points and Mass Graves." International Criminal Tribunal for the Former Yugoslavia, 2000.

"Medical Examiner and Coroner Systems: Current and Future Needs." In *Strengthening Forensic Science in the United States: A Path Forward: A Report of the U.S. Department of Justice*. Washington, D.C.: National Academy of Sciences, 2009.

Menzies, A. C. "Review of Material Relating to the Entry of Suspected War Criminals into Australia." Canberra, ACT: Australian Government Publication Service, 1987.

"Missing Persons: A Hidden Tragedy." International Committee of the Red Cross, 2011.

Morgan, Oliver, Morris Tidball-Binz, and Dana Van Alphen. *Management of dead bodies after disasters: a field manual for first responders*. Washington, D.C.: Pan American Health Organization, 2006.

Nunca Mas: The Report of the Argentine National Commission on the Disappeared. New York: Farrar Strauss Gireaux, 1986.

Olmo, Dario, Anahi Ginarte, Claudia Bisso, Mercedes Salado Puerto, and Luis Fondebrider, "A Mass Grave in Argentina: The San Vicente Cemetery." In *Hard Evidence: Case Studies in Forensic Anthropology*, edited by Dawnie Wolfe Steadman, 231-231. New York: Routledge, 2016.

Operacija Srebrenica. Zoran Petrovic-Pirocanac. Belgrade, Serbia: Studio B TV, 1995.

Peskin, Victor Avigdor. "Virtual Trials: International War Crimes Tribunals and the Politics of State Cooperation in the Former Yugoslavia and Rwanda." PhD diss, University of California, Berkeley. 2005.

Recensement general de la population et de Thabitat au 15 Aout 1991: analyse des resultats definitifs. Kigali: Republique Rwandaise, 1994.

Reeves, Keanu, Laurence Fishburne, Carrie-Anne Moss, Hugo Weaving, Joe Pantoliano, Lilly Wachowski, and Lana Wachowski. *The Matrix*. Directed by Larry Wachowski and Andy Wachowski. Burbank, CA: Warner Home Video, 1999.

Scientists and Human Rights in Guatemala: Report of a Delegation. Washington, D.C.: National Academy Press, 1992.

Searching for Dr. Josef Mengele: Hearings before the Subcommittee on Juvenile Justice of the Committee on the Judiciary, United States Senate, to inquire into Dr. Mengele's whereabouts and on the role of the U.S. Army, if he was in custody of the U.S. government. 99th Cong. 1 (1985).

Secker, Jane-Louise. "Newspapers and Historical Research: A Study of Historians and Custodians in Wales." Department of Information Studies/ Department of History and Welsh History, Aberystwyth University, 1999.

Security Council Resolution 827. May 25, 1993. <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N93/306/28/IMG/N9330628.pdf>

Security Council Resolution 955. November 8, 1994. <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N95/140/97/PDF/N9514097.pdf>

Special Investigations Unit. *Report of the Investigations of War Criminals in Australia*. Canberra, ACT: Australian Government Publication Service, 1993.

"Srebrenica, a 'Safe' Area: Reconstruction, Background, Consequences and Analyses of the Fall of a Safe Area." NIOD Institute for War-, Holocaust- and Genocide Studies, 2002.

Stover, Eric. *Guatemala: Getting Away with Murder*. New York: Human Rights Watch, 1991.

Stover, Eric. *Unquiet Graves: The Search For the Disappeared in Iraqi Kurdistan*. Middle East Watch and Physicians for Human Rights, 1992.

The Katyn Forest Massacre: Hearings before the Select Committee to Conduct an Investigation of the Facts, Evidence and Circumstances of the Katyn Forest Massacre on Investigation of the Murder of Thousands of Polish Officers in the Katyn Forest near Smolensk, Russia. 82nd Cong. 1-2 (1951-1952).

The trial of Saddam Hussein. Produced by Daniel B. Polin and Elyse Steinberg. Written by Elyse Steinberg, Daniel B. Polin, and Andrew Morreale. Directed by Elyse Steinberg. Alexandria, VA: PBS Home Video, 2008.

Tyers, Caroline Alyce. "Hidden Atrocities: The Forensic Investigation and Prosecution of Genocide." PhD diss., University of Tennessee, 2009.

United Nations document A/54/549. "Report of the Secretary-General pursuant to General Assembly resolution 53/35: The fall of Srebrenica." 15 November 1999.
http://www.un.org/en/ga/search/view_doc.asp?symbol=A/54/549

United Nations Document S/1994/674. "Final Report of the Commission of Experts Established Pursuant to Security Council Resolution 780 (1992)." May 27, 1994.

United Nations Economic and Social Council resolution 1989/65. "Manual on the Effective Prevention and Investigation of Extra-Legal, Arbitrary and Summary Executions." May 24, 1989.
<http://www.ohchr.org/Documents/ProfessionalInterest/executions.pdf>

United Nations Resolution 260 (III). "Convention on the Prevention and Punishment of the Crime of Genocide." December, 9 1948. URL: <http://www.hrweb.org/legal/genocide.html>. Accessed March 4, 2016.

United Nations Security Council Resolution 819. April 16, 1993. <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N93/221/90/IMG/N9322190.pdf>

United Nations. *Charter of the International Military Tribunal – Annex to the Agreement for the Prosecution and Punishment of the Major War Criminals of the European Axis* ("London Agreement"). August 8, 1945.
Van Heuven, Marten. "Understanding the Balkan Breakup: Three Book Reviews." Santa Monica, CA: RAND, 1996.

"Visible Proofs: Forensic Views of the Body." National Libraries of Medicine, 2006. URL: https://www.nlm.nih.gov/visibleproofs/galleries/cases/disappeared_image_4.html .