UNIVERSITY OF CALIFORNIA,
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Tongues in Trees and Sermons in Stones: The Landscape of Affordances

DISSERTATION

submitted in partial satisfaction of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

in English Literature

by

Christopher Preston Dearner

Dissertation Committee:
Professor Julia Lupton, Chair
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DEDICATION

To

My Family, Friends, Advisor, Committee, and Colleagues, in recognition of the transitory nature of all human achievement

I met a traveller from an antique land,
Who said—"Two vast and trunkless legs of stone
Stand in the desert. . . . Near them, on the sand,
Half sunk a shattered visage lies, whose frown,
And wrinkled lip, and sneer of cold command,
Tell that its sculptor well those passions read
Which yet survive, stamped on these lifeless things,
The hand that mocked them, and the heart that fed;
And on the pedestal, these words appear:
My name is Ozymandias, King of Kings;
Look on my Works, ye Mighty, and despair!
Nothing beside remains. Round the decay
Of that colossal Wreck, boundless and bare
The lone and level sands stretch far away.
--Percy Bysse Shelley, "Ozymandias"

The life of consciousness – epistemic life, the life of desire, or perceptual life – is underpinned by an 'intentional arc' that projects around us our past, our future, our human milieu, our physical situation, our ideological situation, and our moral situation, or rather, that ensures that we are situated within all of these relationships
-- Maurice Merleau-Ponty, *The Phenomenology of Perception* (137)

And this our life, exempt from public haunt,
Finds tongues in trees, books in the running brooks,
Sermons in stones, and good in everything.
--*As You Like It*, 2.1.15-17

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"Tongues in Trees and Sermons in Stones: The Landscape of Affordances" deals with the phenomenology of intentionality and phenomenal upheavals in Early Modern English drama. The dissertation is primarily concerned with investigating the conditions of possibility for experiencing affordative structures, and with the internal and external costs involved when those structures are revised. The dissertation includes the design, programming, construction and analysis of a *King Lear*-based arcade game.

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ABSTRACT OF THE DISSERTATION

TONGUES IN TREES AND SERMONS IN STONES: THE LANDSCAPE OF AFFORDANCES

by
Christopher Preston Dearner
Doctor of Philosophy in English Literature
University of California, Irvine, 2021
Professor Julia Lupton, Chair

"Tongues in Trees and Sermons in Stones: The Landscape of Affordances" deals with the phenomenology of intentionality and phenomenal upheavals in Early Modern English drama. The dissertation is primarily concerned with investigating the conditions of possibility for experiencing affordative structures, and with the internal and external costs involved when those structures are revised. The dissertation includes the design, programming, construction and analysis of a *King Lear*-based arcade game.

INTRODUCTION – THE OCULAR PROOF

"Be sure of it; give me the ocular proof," Othello yells at Iago before grabbing him by the throat in the middle of the third act. By this point in the play, Othello has begun to suspect – because of Iago's insinuations – that Desdemona has been unfaithful to him. Over the course of the rest of the scene, Iago succeeds in narrowing Othello's perceptual world to a point, focusing him on a single question – is Desdemona faithful? – with only one possible source of knowledge: ocular proof. After Othello demands ocular proof, Iago carefully shapes what Othello might consider as valid proof, dismissing the possibility that the latter could see the supposed infidelity directly, asking "Would you the supervisor grossly gape on?" (3.3.397) and shortly thereafter flatly telling Othello "it is impossible you should see this" (3.3.404). Iago's clever rhetorical twist – insisting on the necessity of visual proof but arguing against the possibility of direct experience – allows Iago to carry out the process of convincing Othello not only that his wife has been unfaithful but also that there is only one possible source of proof. Iago is adept at carefully manipulating what Othello imagines it is possible to see in order to change how he imagines "ocular proof" as possible. If Iago can show Othello the handkerchief, then Desdemona has been unfaithful. QED.

Only vision, in *Othello*'s imaginary, is capable of irrefutably establishing this one-to-one correspondence, and only Iago's careful manipulation of how Othello imagines and interprets his vision can turn a single handkerchief into proof of infidelity. The relationship between vision and knowledge – or, more exactly, between vision and epistemic certainty – is an obsession of Renaissance literature generally and Shakespeare specifically. In *A Winter's Tale*, Leontes takes his supposed observation of Polixenes and Hermoine "paddling palms and pinching fingers" as proof of the latter's infidelity (1.2.114). Much of the uncertainty and fluidity on Prospero's isle is

generated by the predominance of other sensory inputs – sound especially – and the unreliability of sight. Lear's miscalculation and raging are figured as the result of lack of vision, while Gloucester is reduced by Cornwall to seeing feelingly after the former's eyes are put out. In the relationship between vision and epistemic certainty, vision is never on its own, however: the tactility of Desdemona's handkerchief inheres in the name of the thing itself, and Leontes observes what he imagines to be a haptic transgression. Vision is never *just* vision, but a part of a larger kaleidoscope of intention, sensation, relationships and ecological embeddedness in the world.

The Study of Vision and the Limits of Knowledge

Before directly addressing how vision and perception form the phenomenological ground on which many Shakespeare plays are built, and before addressing how the relationship between vision, action, and ecological relationships informs these plays, I will first take a detour through a debate on how to study, describe, and understand vision that occurred in the latter half of the twentieth century. In his groundbreaking 1979 work on perception, *The Ecological Approach to Visual Perception*, visual psychologist James Gibson begins by criticizing not only the generally accepted conclusions of his field, but the most common experimental methods used to reach those conclusions. "Vision," he explains on the first page of the book, "is studied by first requiring the subject to fixate a point and then exposing momentarily a stimulus or pattern of stimuli around the fixation point" (1). He may have had in mind an experimental apparatus similar to one used in a 1966 study of visual acuity, described as follows:

> a 35mm automatic slide projector, mounted in a rotatable cradle driven by a variable speed driver motor, projects an acuity target image on a 180-degree cylindrical screen 4 feet in radius. The screen, made of metal painted flat white, is uniformly illuminated at approximately 7.8 footcandles and has a 50% reflectance factor. The subject (S) sits in an adjustable height chair directly under the projector so that the

> pivot point of the projector cradle, the focal point of the projector, the center of curvature of the screen, and the center of S's head are all in vertical alignment" (Burg 460).[1]

The central problem with such experimental setups is simple to point out: such a setup "assumes that each fixation of the eye is analogous to an exposure of the film in a camera, so that what the brain gets is something like a sequence of snapshots" (Gibson 1). Like a camera, the eye is fixed in place, rendered separate from the rest of the body and is imagined to pipe its signal directly to the brain; the body itself is reduced to little more than a corporeal tripod, viewed as at best incidental to the core of perception. Such setups fail to capture most features of real-life visual experience, which involves occasionally moving one's head, looking at backgrounds other than a metal screen painted flat white uniformly illuminated at approximately 7.8 foot-candles, or even getting up and walking around the room.

Gibson's critique participates in the larger tradition of a more general critique of scientific methods; one strain of this criticism has been articulated with typical acerbic wit by Nietzsche. When discussing taxonomy and the production of scientific knowledge more generally in *On Truth and Lies in a Nonmoral Sense*, he noted that "when someone hides something behind a bush and looks for it again in the same place and finds it there as well, there is not much to praise in such seeking and finding" (Nietzsche 85). Similarly, when you design your experiment with the assumption that the best way to investigate visual perception is to treat the eye like a camera, you should not be surprised when your experiment reveals that the eye acts like a camera.

The reason for this mode of experiment design – for the use of "the headrest, the bite-board, the exposure device, the tachistoscope, the darkroom with its point of light, and the laboratory with its carefully drawn pictoral stimuli" is straightforward; all of these devices

[1] More sophisticated versions of similar experimental setups are still in use today.

"made it possible to study vision *experimentally*" (Gibson 3). That is, the prevailing understanding of acceptable methodology necessitated the isolation of one part of the larger visual system, while simultaneously allowing experimental designers to overlook the glaring differences between such designs and how vision functions in the wild. When one is unable to grossly gape on at behavior in the world, one simply needs to create carefully controlled artificial conditions that make direct perception possible. If Iago can show Othello the handkerchief, then Desdemona has been unfaithful; If the subject sees objects or stimuli in a particular way while strapped into a chair and starting at a uniformly illuminated screen, we have discovered something fundamental about how vision works. QED.

These methods are, of course, useful for generating a large amount of knowledge about how *parts* of perceptual systems function. As Gibson puts it, "these facts … are perfectly good facts, and they have their place" (4) – but they are far less useful for understanding how large, complicated human experiences like visual perception or thought work. Taking the body from the environment, the mind from the body, and the eye from the head will necessarily generate a restrictive and restricted understanding of any higher-level activity. "The laboratory," in Gibson's words, "*must* be like life!" (3), and it is this approach – understanding vision *in vivo* rather than *in vitro* – that allows Gibson to formulate a much more expansive theory of visual perception.

From this methodological criticism in the late sixties, we can think both backward and forward in time. Looking forward to our own moment, the habits of thought that allow one to understand the eye as a camera are widespread and deeply rooted in our cultural imaginary. We could ask why so much has been written over concerns that we will be replaced by AI or machines or machines piloted by AI), and so little has been written on how this has already

happened in our own imaginations. We could ask what set of assumptions let us imagine that "uploading a brain" is a legible – let alone possible or desirable – goal. We no longer have a mind or a soul, we have a brain; brains do not think, they process data and sensory stimuli. Facts are, of course, better and more reliable than feelings, because a fact is something you can put into Deep Blue and use to win Jeopardy! We imagine ourselves not as beings of too too sullied flesh but as assemblies of microphones and cameras, networks of wires that all route to a biological computer. We worry about being replaced by machines because we have investigated ourselves *as* machines and found almost every aspect wanting.

Moving in the other direction – back to Descartes (who else?) – lets us look at the origins of the strain of thinking that manifests itself today as cognitivism and the computational theory of mind. You cannot first imagine the body (or, more precisely, the body's various parts and organs) as a support or ancillary component in a large computational system without first gently pulling out the *cogito* and leaving it to float, alone in a void, without such mundane and irrelevant concerns as eating, sleeping, trying to get comfortable in a chair while you're busy cogitating, or moving your head to see what's just beyond the flat white metal panel taking up precisely one hundred and eighty degrees of your visual field. Imagining the mind – or, rather, the brain – as separable from the body is, of course, a misreading of Descartes, but it has nonetheless become the dominant cultural mode of understanding cognition: you can upload brains, you can put chips in them, you can use artificial intelligence networks modeled after brains to read faces and get a better understanding of what is going on in the brains behind those faces than the people who possess them. This is all, of course, totally incorrect, but it is very clean, conceptually, and simple enough to pitch in an elevator.

The imaginative underpinning of the methods Gibson was criticizing fifty years ago has, then, both a long history and substantial lasting influence on the way we understand the world in the here and now. The question of perception – what, exactly, do we encounter when we encounter the world – cuts to the core of what it is to be human and what it means to be a human in the world. As much as humans are political or rational animals, we are perceiving animals. This dissertation is an investigation into how our perception works in the world – into how who, where, and when we are shapes our perceptual access to the world around us, and what thoughtful engagement with literature has to teach us about these matters.

I focus on theatre because it is the only literary genre intended to present us with *live* models of human experience. In the words of Bert States, "theatre – unlike fiction, painting, sculpture, and film – is really a language whose words consist to an unusual degree of things that *are* what they seem to be … in the theatre light is brightness pretending to be other brightness, a chair is a chair pretending to be another chair, and so on" (20). As such, theatre presents a uniquely suitable venue for investigating possible worlds – or, in the words of game designer and theorist Brenda Laurel, the "something that might go on" (6).

The Renaissance, too, is a particularly fruitful period for the modeling of new possible worlds, because in the wake of the explosion in travel and trade seen in England after the fifteenth century, "The world of realities in which men live is changed; it grows broader, richer in possibilities, limitless" (Auerbach 321). The fascination with travel in the Renaissance is evident by the popularity of travel writing, most notably Hakluyt's voluminous *Voyages and Discoveries,* and the imaginative potential of this fascination is a force in many of Shakespeare's plays: the central action of *Pericles* depends on a shipwreck, and *The Tempest* imagines not only an island colonized by a powerful magician, but the possibility of a commonwealth where "All

things in common nature should produce / Without sweat or endeavor" (2.1.157-58).[2] Even more common than imagined utopia is imagined apocalypse, especially in Shakespeare's tragedies – Richard II, Lear, and Macbeth all muse on the possibility of the world ending. The Renaissance was a time on the cusp of the type of phenomenal upheaval that will be examined in detail later in this dissertation, and the uncertain resolution of that upheaval was highly generative.

Theoretically, I have begun with Gibson (and will be centering his work in the introduction) both because his criticism of scientific isolation is accurate and relevant, and because his theory of affordances provides a good, sturdy set of bricks for the beginning of an investigation into how literature models and reveals the phenomenological aspects of human perception.[3]

The Strangeness of Perception and a Theory of Affordances

Before moving on to Gibson, though, I want to take a minute and bring to the fore just how strange perception is. Take a moment to think about what it is like to walk out the door of your house. You have just been doing something, and you are going somewhere; it is likely that the door enters your consciousness only briefly, and then only as the way out of your house. On any given day, you are likely to only be aware of some (if any) of the physical steps involved in opening a door: moving your hand toward the door, unlocking it, turning the knob and pulling

[2] Shakespeare is not the only Renaissance author fascinated with travel, and not the only literary venue where new worlds are imagined through the lens of distant locations; Aphra Behn's *Oroonoko* is set in Africa and features descriptions of unfamiliar animals and (fictionalized) customs, and Ben Jonson's *The Alchemist* imagines, through Mammon, a solipsistic utopia where his "meat shall all come in in Indian shells / Dishes of agate, set in gold, and studded / With emeralds, sapphires, hyacinths, and rubies" (2.2.72-74).

[3] Caroline Levine's *Forms* is one of the more notable recent contributions to the study of affordances in literature, and will be discussed later in the introduction; other treatments of the affordances and phenomenology of literature and Shakespeare include Terence Cave's *Thinking with Literature*, Evelyn Tribble's *Cognition in the Globe*, Bruce Smith's *Phenomenal Shakespeare*, Randall Martin's *Shakespeare and Ecology*, and Kevin Curran's "Feeling Criminal in Macbeth."

the door with the appropriate amount of force; walking through the now-present opening in your house (while holding a coffee, a notebook, and your keys) and pulling the door closed behind you (again with the appropriate amount of force – don't slam it!), and locking it before moving on to your goal. There is another layer of experience below the component actions involved in opening a door that you are even less likely to notice: the hardness, temperature and size of the handle, the color and surface reflectivity of the door, the change in amount of light once the door is open. There is a paradox at the heart of this experience: we both do and do not perceive these more fine-grained, physical features of the person-door-goal system. While these facts about the door do not enter our consciousness, our perceptual system must act on them. We need a certain amount of information in order to complete the process successfully, but that information enters – and leaves – somewhere other than our reflective consciousness.

It is worth noting at the outset that the philosophical underpinnings of this relationship to the world are a secondary question for this dissertation. I am more interested in how *our experience* of perception and possible actions works and less interested in the deep structure of perception. Heidegger's investigation into being-in-the-world, for example, is concerned with similar questions: Dreyfus points out that, when equipment does not function as we expect it to, there is a "breakdown" that "leaves open a place for traditional intentionality," and that when a doorknob ceases to function, "we find ourselves deliberately *trying* to turn the doorknob, *desiring* that it turn, *expecting* the door to open, etc." (70). Heidegger does not, however "try to do justice to the traditional account of intentionality" in *Being and Time* (Dreyfus 69). Absorbed coping may be an accurate description of the mode we are in when approaching equipment, but focusing on the *experience* of being is different than discussing its *structure*. This dissertation is concerned with the former, while I understand Heidegger to be concerned with the latter.

One way of making sense of how we access potential actions in our environment – and working through the strangeness of perception – is by discussing "affordances," which takes us back to Gibson and his 1979 work, *The Ecological Approach to Visual Perception*. In this book, Gibson develops what he calls a theory of affordances, a model for understanding how organisms perceive and interact with their environment. In a much-quoted passage, he offers a succinct definition of "affordance:"

> The *affordances* of the environment are what it *offers* to the animal, what it *provides* or *furnishes*, either for good or for ill. The verb *afford* is found in the dictionary, but the noun *affordance* is not. I have made it up. I mean by it something that refers to both the environment and the animal in a way that no existing term does. It implies the complementarity of the animal and the environment (127).

An affordance, in its most basic form, is a possibility for action offered by an object. Affordances are often spoken of in terms of the "-ability" of an object: an apple's eatability, a chair's sitability, an article of clothing's wearability, a terrain's navigability, or a city's walkability. Although affordances exist as a feature of the environment, their presence is creature-specific. Doorknobs, for example, afford turning for humans and other animals with sufficient dexterity; they do not afford turning for cats. Below the species level, affordances can vary by individual; many more things afford lifting for an Olympic weightlifter than they do for most humans. Nor are affordances necessarily constant for a given individual – the clothes I wore while exercising on a regular basis have lost their wearability as habitual running has been replaced by habitual reading and writing.

Affordances also have conceptual consequences for how we imagine creatures and landscapes to be connected: they "[imply] the complementarity of creature and environment." The structure of a creature's affordative landscape is the result of its environmental niche, its "setting of environmental features that are suitable" into which "it fits metaphorically" on a biological level (129). Access to affordances is influenced by – and influences – evolutionary

history. The most famous example of this type of adaptation is Darwin's finches, who evolved different beaks in order to make exploitable differing affordances for nutrition in their environments. The finches would not have come to exist without their environmental setting; nor do their various island settings afford nutrition without the finches' specialized beaks.

Because affordances arise from the relationship between creature and environment, the same or similar settings can have radically different affordances for different animals. For most bipeds and quadrupeds, open air above a flat surface affords motion in two dimensions; for most birds, it affords motion in three dimensions. For fish it affords neither motion nor respiration; for whales and dolphins it affords the latter but not the former. For guinea pigs, open air affords danger; for groundhogs, it affords visibility. Although both are prey animals, guinea pigs are preyed upon more frequently by birds and groundhogs more frequently by coyotes and bobcats. Guinea pigs seek out shelter in the form of undergrowth, whereas groundhog colonies are unable to survive in tall grass because of their differing requirements for environmental affordances. All of these differences in affordance are a product of both biology and ecology – what equipment for navigation, respiration, etc., the creatures are furnished with and their relationship to plants and other animals in their environment. To discuss an affordance is to specify not just a creature or a just an environment, but both, and to make a claim about the relationship between the two – or, as Gibson would put it, an affordance "refers to both the environment and the animal" and implies their complementarity.

In addition to co-referring to animals and their environment, affordances are directly perceived by creatures in their environment. When articulating this feature of affordances, Gibson suggests that "what we perceive when we look at objects are their affordances" and that – as we have already noted while thinking about or walking through doors – "phenomenal objects

are not built up of qualities" (134). To return to the doorknob, this means that it is first a graspable, turnable object that opens a door, and that its physical properties – size, color, material, temperature – show up as phenomenologically secondary in most cases. It is relatively easy to think up situations in which they would show up first: a doorknob too large to turn, one that that is made of foam, one that is glowing hot, etc. These, however, would all occur as deviations from a prototypical doorknob, and because of that the unexpected features of these doorknobs would be phenomenologically primary.

A functioning doorknob is one that shows up as little as possible *in terms of its qualities*, appearing instead as an unmediated affordance. I do not see an object of a certain size, shape, color, and position, and conclude from these facts that it is a doorknob, and therefore graspable and turnable – I see first that it is graspable, and can (although I may not) identify its other salient qualities after that. Guinea pigs do not need to be able to hypothesize about the potential presence of hawks or eagles in order to feel unsafe in the open – but, because of affordance theory, neither do we have to understand the behavior as purely instinctual and having no phenomenological content. One of the central strengths of affordance theory is that it lets us address the question of perception in both general and specific terms: general because it provides a framework for understanding that cuts across categories (time period, species, etc.) and specific because this framework must be inflected and specified in terms of a particular creature in a particular temporal, spatial, and social context.

The central tenet of affordance theory, then, is that animals directly perceive possibilities for action in their environment; those possibilities are called "affordances," and exist only as a relationship between animals and their environment. This description of the relationship between the subject and its environment brings back much of what was lost in the study of perception

Gibson was reacting to. Finally, the perceiving subject – be they a cat, guinea pig, or a person – has their body back, and can use it to move their eyes around in the environment. The other factors so carefully excised by experimental design – ecological setting, relationships, bodily configuration – are now a part of the theory of vision and perception. The *cogito*, strangely enough, is gone, or moved away from central consideration. This is a point we will return to later in the introduction, but an advantage of Gibson's theory of affordances is that it does not necessitate a reflective consciousness to understand how animals perceive their worlds.

Gibson's *in vitro* study contrasts with the state of psychology in 1979, described in the introduction to *The Ecological Approach to Visual Perception*, as one in which "the textbooks and handbooks assume that vision is simplest when the eye is held still, as a camera has to be, so that a picture is formed that can be transmitted to the brain … the investigator assumes that each fixation of the eye is analogous to an exposure of the film in a camera, so that what the brain gets is something like a sequence of snapshots" (1). Compare this with Nietzsche's famous assertion in *On Truth and Lies in a Nonmoral Sense* that science is like "when someone hides something behind a bush and looks for it again in the same place and finds it there as well" (85). This is the same type of error that we make when we understand the brain as a computer and then imagine that computers, some day, will be like brains.

Much as we have been discussing, Gibson saw the foundation of his addition to the science of perception as being the suggestion that "natural vision depends on the eyes in a head on a body supported by the ground, the brain being only the central organ of a complete visual system" (1); Alva Noë, a currently active theorist of perception, describes Gibson's theory as radical relative to other scientific models of vision because "it suggested that we directly perceive meaning and value in the world" rather than "[imposing] meaning and value on the

world" (105). In articulating a model of perception that understands the (human) animal as fundamentally situated (that is, having a body and an environment), affordance theory splits with models of cognition that repeat the previously mentioned cognitivist fallacy – those that focus on the brain or mind as a tool for processing data – while tying into a longer tradition of thought that considers the human experience as inseparable from the objects and environments that surround us.[4] Affordance theory is a phenomenological theory of vision and perception articulated within a pared-down scientific and psychological framework. Gibson's understanding creates a world constructed not out of measurable qualities such as size, height, weight, and color, that are then analyzed by a *cogito*, but one that is constructed out of various possibilities for action, mediated through specific objects and conditioned by perception.[5]

The previously mentioned displacement of the *cogito* is central to what makes affordance theory a powerful tool for analysis – because affordances do not have to pass through the fine propositional mesh of reflective consciousness, they are phenomenologically *primary.* I do not need to think in order to know that I can throw a baseball; in seeing it or holding it, I *experience* its throwability. Implicit in Gibson's model is the idea that, in most cases, perception precedes cognition (and that cognition may not need to occur at all) when an individual is confronted with affordances in their environment. Similarly, the recognition built into affordance theory that the individual and their environment are intertwined is another powerful moment of understanding. A creature's embeddedness and evolutionary history is what makes values and meaning directly perceptible in the world, which in turn makes values and meaning phenomenologically primary.

[4] Although Gibson draws mostly from the work of earlier psychologists such as Kurt Lewin and Kurt Koffka, Heidegger's concept of "readiness-to-hand," which derives from the "manipulability" of various objects (98) and Merleau-Ponty's "intentional arc," which "projects around us our past, our future, our human milieu, our physical situation, our ideological situation, and our moral situation" (137) bear some moments of similarity with Gibson's affordance theory.

[5] All of which are specified by what Gibson calls the "ambient optic array," which ties into his larger theory of vision – a discussion of which is outside the scope of this introduction.

The door is openable before it is an object of a particular height, width, and weight, and these categories are secondary to the uses the door offers to us.

Expanding Affordances

Gibson's initial account of affordances has some limitations, imposed primarily by his insistence on affordances as a sort of physical invariant of the environment. Gibson insists that "the affordance of something does *not change* as the need of the observer changes. The observer may or may not perceive or attend to the affordance, according to his needs, but the affordance, being invariant, is always there to be perceived" (139). This may be correct enough when considering whether or not a piece of food affords eating (it does, even if one is full) but fails to properly account for the texture of human experience. In the same way that we perceive affordances rather than physical properties, we do not perceive all affordances as equally available; I have much more immediate access to the sitability of a chair than its throwability.

One way of working through this limitation in Gibson is to look at what sort of definition of "ecology" he is working with. "The natural environment," he mentions when discussing niches, "offers many ways of life," later specifying the features of this environment that make animal life possible – "the physical, chemical, meteorological, and geological conditions of the surface of the earth and the pre-existence of plant life" (128). Gibson is following what Kevin De Laplante would later call the "orthodox conception of ecology," one in which ecology is "ultimately … to be understood as a *natural* (as opposed to 'social'), *biological* (as opposed to 'physical') science" (265). Gibson's ecology is one that writes off vast swaths of human experience as well as many of the coordinates that make human experience possible. Gibson also touches only briefly on the relationship between affordances and other humans, claiming that

"behavior affords behavior, and the whole subject matter of psychology and of the social sciences can be thought of as an elaboration of this basic fact" (135). I would argue that instead of being simply an example of other affordances, or even a different type of affordance, our relationship to other humans forms part of the ground that structures when and how we have access to affordances.

The main modification I want to make to Gibson's theory of affordances is to make it *more* ecological – to embrace "the expansionist conception" of ecology, which understands ecology as including "phenomena that might also be studied by economists, sociologists, psychologists, anthropologist, and historians" (De Laplante 266). The questions I will ask are about how these various "phenomena" – I would call them systems into which we are embedded – condition not only our action or agency but our direct experience of the world. Which affordances are kept closed off to us by the sum total of the way we live? Which are given outsize proportion or made to seem closer or more desirable than they would otherwise be? Expanding the definition of affordances also allows us to ask much more broad questions, such as if literature, in addition to affording reading, affords other, more nebulous things – understanding, active imagination, reflection, personal growth? And can we, in turn, imagine that social or cultural factors such as race, class, and gender can condition our perception of affordances as strongly as physical factors such as amount of available light or visual acuity?[6]

To open affordance theory up to a more thorough understanding of ecology, we can return to Gibson's dismissal of the work of the early-twentieth century gestalt psychologists Kurt Koffka and Kurt Lewin. Lewin's model of valences involves "corresponding *vectors,* which could be represented as arrows pushing the observer toward or away from the object" (Gibson

[6] Levine's *Forms* addresses a similar question on the topic of literary form, and Ahmed's *Queer Phenomenology* examines these questions in the context of sexual orientation.

138). Koffka differentiated between a physical object and a "phenomenal object", the latter of which exerted a demand character on a perceiver according to their needs (Gibson 138). When dismissing Koffka's idea of "demand character" and Kurt Lewin's "valences," Gibson argues that "the object offers what it does because it is what it is," descending into tautology (138-39). Gibson's insistence against the idea of phenomenal objects is related to another controversial claim, that affordances exist as objective features of their environments.

What Koffka sees – and what Gibson misses – are the ways in which experiences that begin as reflective can feed back into our experience of affordances in the world, and how the accumulation of these experiences across our lives create the conditions of possibility for our encounter with the world.[7] Merleau-Ponty's intentional arc, the sum total of those things that influence what we hold in consciousness, includes "our past, our future, our human milieu, our physical situation, our ideological situation, and our moral situation," accounting for far more features of the human experience than Gibson (Merleau-Ponty 137). In Merleau-Ponty's understanding of the world, not only our personal history but the larger history of the world and the systems into which we are embedded informs our ability to hold things in our attention in a goal-directed way. This, in turn, conditions our direct perception of affordances. In Gibson's understanding, all of this would presumably fall into the domain of the cognitive layer that exists *after* perception. We will have occasion to turn to Koffka's work in the first chapter.

Recent research in enactive theories of mind and situated cognition has returned to this understanding of the relationship between the mind, the world, and the phenomenology of

[7] This resonates with Sarah Ahmed's idea of orientation, presented in *Queer Phenomenology*: specifically with her description of the role that previous choices and experience play in present identity. Per Ahmed, "we do not acquire our orientations just because we find things here or there. Rather certain objects are available to us because of lines that we have already taken: our 'life courses' follow a certain sequence, which is also a matter of following a direction or of 'being directed' in a certain way" (21).

volition, bringing affordance theory with it. The enactive mind theory, established in 1991 in Francisco J. Varela, Evan Thompson, and Eleanor Rosch's groundbreaking work *The Embodied Mind* posits that "a living being is an autonomous agent that actively generates and maintains its own cognitive domain through continuous reciprocal interactions of the brain, body, and the world" (Jelić et al 4).[8] Situated approaches to cognition investigate the ways that cognitive processes are contingent on and embedded in our physical and social environments. The former understands mind as something that is created and active; the latter asks how various abilities of mind depend on how and where we are, and what is around us. Both models are a return to the sort of thinking Koffka was engaging in, and both models present a more comprehensive and accurate understanding of human cognition in the world.

In a recent article that introduces the idea of a "landscape of affordances," Erik Rietveld and Julian Kiverstein expand the definition of affordances to include "relations between aspects of a material environment and abilities available in a form of life" (337), an expansion and specification of Chemero's 2003 definition of affordances as "*relations* between 'features' of the environment and abilities of organisms" (Rietveld and Kiverstein 330). They also tie in solicitations, a concept similar to Koffka's valences, arguing that "an affordance … becomes a solicitation when it is relevant to our dynamically changing concerns," (341) ultimately concluding (and returning to Gibson's language in doing so) that "our ecological niche is much richer than we might have supposed" (349).

Rietveld and Kiverstein's articulation of affordances bears moments of overlap with anthropologist Tim Ingold's account of the landscape and taskscape presented in "The Temporality of the Landscape," an analysis of the role that landscapes and their activity-based

[8] Curran describes Macbeth's agency as emerging "from a sensory encounter with the instrument" in his treatment of the dagger scene, which will be discussed in the following chapter (394).

counterpart, taskscapes, play in structuring patterns of human activity. “The forms of the landscape,” are, according to Ingold, “generated and sustained in and through the processual unfolding of a total field of relations that cuts across the emergent interface between organism and environment,” as are the “bodily forms” of the creatures that inhabit it (156). Similarly, every task of creatures in their environment “takes its meaning from its position within an ensemble of tasks” (158). The activity proper to a form of life creates an interlocking “array of related activities” that extends both backwards and forwards in time (158).

More importantly, however, Rietveld and Kiverstein bring the recognition – already central to phenomenology – that the human animal’s environment includes much more than biology to affordance theory, by way of pointing out that “the human ecological niche is shaped and sculpted by the rich variety of social practices humans engage in” (325). All of the systems into which we are embedded – social, political, economic, and so forth – create our ecological niche. In the same way that Ingold’s taskscape is an emergent property of the human/environment relationship, our ecological niche is an emergent property of not only biology but also of all other aspects of the human taskscape and those that condition our agency in the world.

An expanded definition of “ecological niche” allows us to understand affordative perception as being directly affected by facts beyond bare biology, and allows us to ask a broader series of questions about how our access to the landscape of affordances is maintained through our rich social practices. Acknowledging cognition as situated lets us bring something like Merleau-Ponty’s wide scope of considerations to affordance theory; integrating a more expansive phenomenology with Rietveld and Kiverstein, in addition to Ingold’s model of the taskscape, allows us to use affordance theory to understand our own world and to ask questions

of literature produced under social and historical conditions which do not necessarily resemble our own. Now our ecology can incorporate all the features of the intentional arc – "our past, our future, our human milieu, our physical situation, our ideological situation, and our moral situation" (Merleau-Ponty 137).

The use of the term "ecology" to describe the relationship of humans to not only the physical but also the cultural environment is not an imposition on ecology by psychologists and cognitive scientists; Kevin De Laplante points out that, even in the first definition of ecology as a distinct field, it included "the total relations of the animal both to its inorganic and its organic environment; including above all its friendly and inimical relations with those plants and animals with which it comes directly or indirectly into contact" (Ernst Haeckel qtd. in De Laplante, 264). The modern expansive view of human ecology includes "phenomena that might also be studied by economists, sociologists, psychologists, anthropologists, and historians" (De Laplante 266), a conception of "ecology" much closer to Merleau-Ponty's intentional arc than to Gibson's relatively restricted understanding of what constitutes the "surroundings" of an animal.

Broadening the "ecology" in Gibson's ecological approach to perception allows us to identify a flatness found in Gibson's description of persons and animals. These, he says, although "so different from ordinary objects that infants learn almost immediately to distinguish them from plans and nonliving things" are "an ecological object with a skin, even if clothed. It [a human or animal] is an object, although it is not *merely* an object, and we do right to speak of *he* or *she* instead of it" (135). Although it is certainly true that we view other humans instrumentally at times, to argue that "the whole subject matter of psychology and of the social sciences" can be thought of "as an elaboration of the 'fact'" that "behavior affords behavior" reduces a vastly complex domain of human activity and experience in the service of developing a common

language (Gibson 135). Many contemporary psychologists are able to square this circle with much more finesse than Gibson; Edwin Hutchins outlines that, for cognitive science, "one of the biggest challenges of the coming decades will be working out the implications of the fact that for humans, the 'world' … consists of culturally constructed social and material settings," gesturing toward that part of the world that Gibson largely ignores or sees as ancillary to the more fundamental act of perceiving (711).

An expanded understanding of ecology allows us to address another one of the central failures of affordance theory as articulated by Gibson – that it does not convincingly account for the fact that we exploit only a very narrow range of the affordances in our environment, typically in routine or predictable ways. Computers are rarely thrown; forks are rarely used to scrape paint from walls; trees are rarely climbed by adults. Even those affordances exploited regularly are only done so in certain contexts. It is my contention that this three-dimensionality is also a function of perception in the world. We do not simply fail to act on the majority of affordances in our environment, we fail to *perceive* them. In the same way that viewers, when asked to count possessions while watching a basketball game, fail to notice a man in a gorilla suit dancing a jig in the center of the court, we fail to perceive the majority of affordances in our environment. Noë describes this failure of perception as follows:

> A striking example [of change blindness] comes from the literature on the related phenomenon of inattentional blindness. In a now famous study, perceivers are asked to watch a videotape of a basketball game and to count the number of times one team takes possession of the ball (Neisser 1976; Simons and Chabris 1999). During the film clip … which lasts a few minutes, a person in a gorilla suit strolls onto the center of the field of play, turns and faces the audience, and does a little jig. The gorilla then slowly walks off the court. The remarkable fact is that perceivers (Including the author) *do not* notice the gorilla (52).

Even among affordances we do perceive and exploit, salience is not uniform, nor do we exploit them in every given situation: when driving a car, certain objects (gearshift, pedals, other cars, mirrors) take up much more space in our phenomenal landscape than others (buttons on the

dash, wipers when it is dry, glove box, etc.) We are perfectly willing to eat a slice of bread at home but would balk at the suggestion that we could do so in the store before the bread has been purchased. Accounting for this aspect of lived reality requires us to understand not only our biological position relative to our environment but also our abilities, our tasks, and our whole way of life.

When dealing with actual affordances, however, Gibson mentions and turns away from certain features of affordances that offer a fuller picture. When discussing hiding places, he notes that the existence of such a space "involves social perception and raises questions of epistemology" (136) without actually addressing those questions. He briefly mentions cases in which "mistaken perceptions led to inappropriate actions," but views these as marginal, at best (142). He also mentions that, when developing, "only when each child perceives the values of things for others as well as for herself does she begin to be socialized," (141) and that affordances "are usually perceivable directly, without an excessive amount of learning" (143) without mentioning the other ways in which perception of affordances is conditioned by socialization and education. A fully-fledged theory of affordances would necessarily take these various structuring conditions into account.

The central conceptual problem Gibson encounters when trying to frame his theory of affordances theoretically is that he views any attempt to give power to an individual's subjective experience as reinforcing Cartesian dualism, which he vehemently and repeatedly rejects. Because of his allergy to individual experience, his insistence that affordances "seem to be perceived directly because they are perceived directly" (140) assumes that "direct" perception is unconditioned by social, ideological, or individual factors. Gibson's insistence that affordances and affordance perception must be rooted in exclusively biological facts about the body misses

what Koffka and Lewin made central to their theories: that, although mind and body are inextricably intertwined, they have separate but related roles to play in the individual's perception of her environment.

Alongside recent expansion of affordance theory, the model of affordances as articulated by Gibson has been significant in the fields of design, architecture, and human-computer interface studies for decades.[9] Much of the recent work in affordance theory has focused on expanding the definition and utility of affordances beyond the initial Gibsonian definition. The philosopher Andrea Scarantino, whose work (along with P. E. Griffiths) on "Emotions in the Wild" has added sophistication to the question of how affordances are prioritized by real creatures in real situations, such as those mentioned above. Other work, such as that done by the architects Jonathan Maier, Georges Fadel, and Gina Battisto, explores cases in which design fails and unintended affordances render a space unusable, and adds the idea that affordances can exist not only between an object and an individual, but between two objects in the context of architectural design.

The bulk of work on affordance theory, however has focused on one of three tasks: applying affordance theory to the design of spaces, objects, or interfaces (such as work done by Maier, Fadel, and Battista, Donald Norman, or work done in the field of human-computer interface design), by establishing hierarchies and specifying the components of affordances (such as work done by Scarantino and Auke Pols) or by bringing affordance theory to humanist inquiry (such as work done by Lupton, Almquist and Lupton, Fred Cummins, and others). A new trend in research is exemplified by Caroline Levine's book *Forms*, which takes on the project of

[9] One of the more well-known book-length applications is Donald Norman's 1988 *The Psychology of Everyday Things* (later published under the title *The Design of Everyday Things).*

making affordances portable in order to explain previously unexplained properties of complex systems.

Levine looks at literary forms in order to analyze the "range of potentialities" that "each shape or pattern, social or literary, lays claim to" (6). She asks what forms enable and what they close off in terms of literary meaning.[10] Similar questions could be asked of various systems and possibilities for action; what, for example, do the political and military systems into which Macbeth is embedded put within his reach and move farther away from it? This allows us, as Levine does, to "grasp both the specificity and generality" of what we are dealing with (6), and to understand the individual not as entirely determined by the larger forces into which they have been born but as exercising agency within these systems.

The Road Ahead

My approach, in the following chapters of this dissertation, involves a mixture of the new approach that Caroline Levine takes and traditional attempts to bring affordance theory to humanist inquiry. I am primarily concerned with the phenomenology of affordances – that is, what it means to experience them in the world, and what a world looks like when we imagine it to be constructed of various possibilities for action. My ultimate goal is to use a careful study of Renaissance drama to develop a theory of possible actions, which would involve identifying the ideological, cultural, interpersonal, and economic forces that constrain our perception of affordances in the world. It would also involve asking what the costs are for changing or revising the affordances we perceive ourselves as being capable of exploiting, and what the aftermath of such a change is.

[10] Levine's approach is similar to Sara Ahmed's idea that orientation brings various things into and out of reach.

This theory involves three central concepts: first, the idea of an ecology of affordances, which refers to all of those forces that shape the possibilities for action available to an individual or character; second, the idea of the topography of intention, which refers to the visible portion of the ecology of affordances. The topography of intention refers to the subtle ways in which our volition is shaped, consciously and unconsciously, by the systems into which we are embedded. Finally, I will be discussing phenomenal upheavals, or moments when what we imagine possible, or ourselves to be capable of doing, radically changes. These typically occur before or in the wake of a great crisis, and are uniquely powerful because they lay bare both the topography of intention and the ecology of affordances at once; they allow us a brief glimpse into structures that would otherwise be opaque or occluded.

The structure of an affordative landscape is much like the structure of a real landscape – there are hills, valleys, mountains, and plains. There are locations that are close but obscured to sight and difficult to reach. There are locations that are far away, but to which the path is clear. And there are paths that, once taken, draw one into a position that obscures the rest of the countryside. Affordative landscapes, much like their physical counterpart, are the result of multiple overlapping ecological processes; the terrain is much easier to perceive than what lies beneath it or how it was formed. Historical, social, economic, linguistic, and personal factors all combine to shape the landscape, tightly-woven like the fabric of Merleau-Ponty's real. On most days, the traversal of this landscape is unproblematic; we walk the old familiar paths and end up very close to, if not exactly at, the place we started. Change is typically slow and seasonal; for a portion of our life the landscape becomes more accessible, and for the rest of it the landscape becomes increasingly overgrown and difficult to navigate. In cases of disease or injury we may

become temporarily or permanently trapped on mountains, in valleys or pits, where the range of affordances the landscape offers us becomes smaller.

There are other changes that can occur in the affordative landscape, however – changes that are sudden and unpredictable, changes that break or radically alter the set of ecological relationships that create and sustain the landscape; these changes can come from without, in the case of natural disaster, war, economic collapse, or revolution; they can come from within, like an earthquake or volcano, an event that results from subterranean pressure and that, once released, cannot be returned to its former state. The changes that can be wrought on the psychological – or phenomenological – landscape are, of course, different, more subtle, and more varied than the release of lava or the sudden slip of a continental plate. Our landscape is a landscape like Bachelard's house is a house – a construct of the self, a psychological entity, more like a dream than a physical location. When navigating the topography of our phenomenal world, we are at once the traveler and the terrain. But still we must traverse it, just as we must live in our cities and houses, our cars and our offices. Our phenomenological landscape plays an equally large, if somewhat quieter and more subtle role in our live than our actual landscapes. The two are, of course, related – where would our affordative landscape be – or, rather, what would it be built of – if not the stuff of the world we actually live in?

Much has been written about many of the factors that form the affordative landscape – although not in the terms I am using – and about the external catastrophes that can alter the phenomenological landscape.[11] Where there has been less said, I think, is about the other sort of phenomenal upheaval – the type built from within, that changes the landscape radically and irrevocably. These are the moments where we realize, yesterday, or last week, or last year, I was

[11] See Gaston Bachelard's *The Poetics of Space*, Auerbach's account of the Renaissance in *Mimesis*, Blumenberg's *Shipwreck with Spectator*, Csikszentmihalyi's *Flow*, or even Hobbes' *Leviathan*.

a different person, and the change has come about because of my thoughts, my decisions, my actions. These are the sorts of changes I would like to describe – to understand the conditions of possibility for undergoing a phenomenal upheaval, to understand the alterations they make to the landscape, to understand what they bring into reach and what they place far away. Finally, I would like to understand the costs of such changes – which inevitably disrupt the ecological processes of the landscape, sometimes bringing them so far out of equilibrium that a new balance seems or actually is impossible.

Renaissance Drama presents an ideal venue for such an investigation since what it principally dramatizes, I will argue, is these phenomenal upheavals. In Renaissance drama, too, the possibility for action is intimately tied to the landscape – *Macbeth* has a blasted heath (as does *King Lear*), in addition to stones that prate, woods that move, bubbles of the earth, and pools or oceans of blood. This structuring metaphor is not one that is imposed on the text from without, but rather one that evolves organically from the language the play uses to create and understand its world. For affordance theory, too, this language is a native tongue; Gibson's understanding of the ability of creatures to act in the world is rooted in their ecological relationship to the landscape. The ecology that Gibson is blind to, however, is the invisible one, the one that separates one conspecific from another, the one that is proper to our phenomenological access to the world rather than our physical access to it. As such, while affordances will help us understand Renaissance drama, Renaissance drama will help us build a more sophisticated model of affordances.

Asking about the range of potentialities that particular organizational modes or media enable is particularly relevant for examining new ways of encountering Shakespeare, as well. Unlike sixteenth and seventeenth century contemporaries of the plays, who had access to them

only through live performances or often unreliable and incomplete printed versions, we can encounter Shakespeare in a wide range of formats and media: annotated print editions, ballet, filmed productions, opera, movies, quote-of-the-day calendars, television, online texts, YouTube videos, and even video games. One way of making sense of this panoply is to ask what each mode of encountering affords, and what affordances of the text it enables and brings to the fore. Video games, specifically, have a special relationship to theatre, as theorized by Brenda Laurel. "Both domains," she claims, "employ representations as contexts for thought. Both attempt to amplify and orchestrate experience. Both have the capacity to represent actions and situations that do not and cannot exist in the real world, in ways that invite us to extend our minds, feelings, and senses to envelop them" (32).

The power of video games – when they are at their best – is similar to the power of theatre. When considering Shklovsky's famous maxim that art exists "to make the stone *stony*," Bert States further articulates the purpose of art as "removing things from a world in which they have become inconspicuous and seeing them anew" (21-22). Brenda Laurel describes both the practice of putting on plays and designing human-computer interactions as "creating imaginary worlds that have a special relationship with reality – worlds in which we can extend, amplify, and enrich our own capacities to think, feel, and act" (33).

In my first chapter, "Whole as the Marble, Founded as the Rock: Phenomenal Upheavals and the Ecology of Affordances in *Macbeth*," I investigate the complex relationship between allowed volitional states and our experience of our environment and our selves, using Macbeth's encounter with a phantasmal dagger – and the disintegration of his world and his experience as a coherent subject that follows – in order to build a better model of how we have access to the

affordances in our environment, and how this access can change (and change us) in response to extraordinary actions or desires.

In my second chapter, "Dearer than Eyesight, Space, and Liberty: Abstraction and Affordance in *King Lear*," I continue my investigation of the relationship between environment and affordance, focusing in this case on the ways in which conceptual systems that structure our thinking limit or expand our access to affordances in the world around us. I examine the way Lear's faith in and focus on fungibility and the logic of exchange conditions his (and his daughters') ability to perceive various affordances in their world. In doing so, I argue that the gradual entropic decay in the world of *Lear* – culminating in the heath scene – can be understood as an externalization and physical manifestation of the logic Lear uses to understand the world.

In my third chapter, "This Insubstantial Pageant: Creating a New Encounter with *King Lear*" – and in the accompanying video game project – I take the conceptual framework developed in the first two-thirds of the dissertation and use it to ask how we can change students' encounters with Shakespeare in the classroom and in the wild. In addition to developing a theoretical approach to changing our encounters with Shakespeare, I have created a game that allows people to encounter lines from Shakespeare outside of the classroom, the play text, or a specific performance in order to recontextualize them in a way that makes the meaning and the applicability of those lines more salient.

What the *Lear* game aims to focalize and bring to experience are some of those aspects of the play that have been occasion for much critical vexation throughout the past few centuries. By confounding the player's expectations about controls, narrative progression, and stability of the game environment, *LearQuest* simulates not the act of performing *Lear* but the experience of

navigating a changing, resistant landscape in which one expects to feel some degree of control or power but has those expectations constantly thwarted.

CHAPTER 1 – WHOLE AS THE MARBLE, FOUNDED AS THE ROCK: PHENOMENAL UPHEAVALS AND THE ECOLOGY OF AFFORDANCES IN *MACBETH*

There is a moment of calm toward the beginning of *Macbeth***,** between two scenes marked by the violent urgency that characterizes so much of the play. After Lady Macbeth exhorts those spirits that tend on mortal thoughts to unsex her, and before Macbeth declares that "if it were done when 'tis done, then 'twere well / It were done quickly," (1.7.1-2) we briefly see the exterior of Macbeth's castle. In 1.6, Banquo, Duncan, and the other Scottish lords arrive at Inverness. Before they are greeted by Lady Macbeth, they comment on the castle and its environment: Duncan notes that it "hath a pleasant seat, the air / Nimbly and sweetly recommends itself / Unto our gentle senses," (1.6.1-3) while Banquo points out that "This guest of summer, / The temple-haunting martlet, does approve … no jutty, frieze, / Buttress, nor coign of vantage, but this bird / Hath made his pendant bed and procreant cradle" (1.6.3-8).

This scene stands as a moment of relative respite in a play which Hazlitt has described as one of "unruly chaos" (45) and Kott famously thought called for "the world flooded with blood" (87). Before this moment, the characters are dealing with the fallout from a war and a traitorous thane; after, Macbeth kills the king, and the world of the play slowly spins out of control while the titular character tries "to drag with him into nothingness as many living beings as possible" (Kott 97). *Macbeth* has few of the quiet domestic scenes present in so many other Shakespearean plays, which frequently serve to add to the rich texture of the characters' worlds.[12] *Macbeth's* martlets scene could be read as merely heightening the dramatic irony; the audience knows of Macbeth's intent to kill Duncan, and similarly knows that Duncan has admitted there is no "art / To find the mind's construction in the face" (1.4.12-13). It could also be read, as J.P. Dyson

[12] For example, the gardening scene from *Richard II* or the fairy tale and harvest festival scenes from *The Winter's Tale*.

does, as foregrounding "the positive *Macbeth* values," including "the medieval notion of hospitality" that are about to be violated (370).

But what of the specific content of Duncan and Banquo's remarks? What of their peculiar references to the air, and the Banquo's extended description of the martlets?[13] In an expansion on the interpretive tradition, the martlets have recently been read by Julia Lupton as somewhat more than merely foregrounding hospitality's presence; they present us with a fully formed model of the virtue, visualizing it as "a complex, sometimes ad hoc, orchestration of spatial and temporal remainders" (369) and indeed as "conveying the social ideals of hospitality via dramatic ironies that reveal that virtue's constitutive vulnerability to violation and neglect" in addition to "tracing the fragile equilibrium between pastoral refuge and environmental exposure" (373). This reading of the passage adds to Dyson's account; more than being a mere "value," it expands on the activity and investments that hospitality creates and requires. Through this brief tableau with martlets and masonry, we get a fully-formed model of hospitality and its vulnerability. Lupton's consideration of the orchestration and fragile equilibrium that the scene describes helps us to begin asking larger questions about the play's extensive use of animal and environmental figures and metaphor.

The martlets scene presents us not only with a model of hospitality, but also with an example of a harmoniously and sustainably managed landscape of affordances: the martlets, which occupy every jutty, frieze, buttress, and coign of vantage, are a perfect example of a creature occupying "a setting of environmental features that are suitable for an animal, into which it fits metaphorically" and in this case physically (Gibson 129). Their relationship to the landscape of the castle affords them both a "pendant bed" and a "procreant cradle," the rest and

[13] On *Macbeth* and Renaissance humoral theory, see Sandra Clark's "Macbeth and the Language of the Passions."

generativity that will be denied to Macbeth after his murder of Duncan. The martlets present us both with a fully realized harmonious relationship to their environment and a concrete result of this relationship. They also present us with a merging of two taskscapes: the taskscape of the built human environment and the taskscape of the natural world, indicating the deep connection between to two. The soon-to-be-shattered harmony of the castle and its nimble and sweet air affords this microcosm of sustainable spatial management and harmoniously interleaved taskscapes. Without the active affordative landscape of the castle, there could be no martlets.

Via affordances' ecological entanglements, this scene ties not only into the immediate dramatic context, but also into the larger conceptual structures that drive the play. Looking through *Macbeth* reveals the strange consistency with which the characters and the play itself use the landscape and its creatures to make sense of their world. After encountering the witches, Banquo remarks on their sudden disappearance by noting that "the earth hath bubbles, as the water has," (1.3.79) and later remarks that "There's husbandry in heaven." (2.1.5) When Macbeth is contemplating the murder of Duncan he wishes that "th'assassination / Could trammel up the consequence" and that "here, upon this bank and shoal of time, / We'd jump the life to come," employing both fishing and horsing metaphors (1.7.2-3, 6-7). During the dagger soliloquy, Macbeth worries that the "sure and firm-set earth" will hear his steps and the "very stones prate" of his whereabout (2.2.57-58). After killing the king he worries that his hand will "the multitudinous seas incarnadine" and later describes his position as being "in blood / Stepped so far, that … returning were as tedious as go o'er" (3.4.138-40). When Fleance fails to fall to the murderers, Macbeth laments that if the son had been killed, he would be "whole as the marble, founded as the rock, / As broad, and general, as the casing air" but is instead "cabined, cribbed, confined, bound in / To saucy doubts and fears" (3.4.21-25).

Animals, too, play a central role in the play's imaginary; in addition to Banquo's temple-haunting martlets, we have Macbeth's speech to Banquo's murderers, which lists no fewer than eight types of dog; we have scorpions in the mind, shard-born beetles, wolves, owls and hawks, kites and dams, the obscure bird, and horses that eat each other. We also have an interesting moment when Macbeth wishes that Banquo were rather "the rugged Russian bear, / The armed rhinocerous, or th' Hyrcan tiger" than the ghost of his murdered friend (3.4.101-103). While most of these moments have been read individually – usually as portents or indices of Macbeth's unravelling throughout the play – the frequency and consistency with which they are brought to bear in the world of the play is deserving of further attention. As Richard Kerridge has noted, references to animals and the environment are "so constant throughout the play as to constitute the continuous presence of an ecosystem in which the human characters and their desires and actions are embedded" (201). This ecosystem forms a significant portion of the landscape of affordances that is disrupted by Macbeth's actions throughout the play.

Banquo and Duncan's remarks about the air and the martlets of Inverness tie into a larger pattern in the play in which the environment and the landscape are used, not only as incidental figures or metaphors, but as tools for interrogating the human relationship to the world. These interrogations reveal a complex understanding of the relationship between humans and the multiple ecological systems into which they are embedded. The martlets here offer a contrast between the disequilibrium the play falls into after the death of Duncan and the harmonious world of the castle and birds. Environments and landscapes in *Macbeth* fundamentally structure how the characters experience their relationship to themselves and others, and how they respond to changes in political and social relationships. In discussing the texture of the perception of affordances, I have chosen a particular conceptual lens – that of the landscape – in order to

model the way that we interact with the texture of affordative perception in our world. The metaphor is drawn not only from the basis of Gibson's investigation into human perception and action (the flat ground) but also from Macbeth's conceptualization of the effects murdering Duncan has on him and the world around him. I will now turn to the text and build a case for the explanatory power of the affordative landscape from a reading of *Macbeth*, centering on the dagger speech.

As much as *Macbeth* is a play about regicide, ambition, a good man brought to evil deeds, or a kingdom in a state of exception, it is a play about the relationship between humans and their social and physical environment, and the costs of disrupting the sustainable ecologies that generate and are generated by life, and about the effects these disruptions have on the ability of characters to imagine and act in the world. To understand the action and stakes of *Macbeth* is to understand how these are changed by and change the landscapes of the play. As such, *Macbeth* is an ideal play to read using affordance theory. Reading *Macbeth* with affordance theory allows us to gain insight into the ways in which Macbeth's relationship to the objects and landscape around him structure the conceptual world of the play; Reading affordance theory with *Macbeth* allows us to expand our understanding of affordances to account for the influence that social, political, and ecological factors have on our ability to take advantage of affordances, and to examine what happens when the structures that support our relationship to affordances shift in unpredictable ways.

Investigating the ecology of *Macbeth* has a relatively storied critical lineage; historically, scholars have focused on *Macbeth* as a play that is full of chaos and uncertainty, and the titular character as a good man brought to evil deeds by primarily environmental factors (frequently in contrast to Richard III, whose evil is understood as internal in origin and calculated in

execution).[14] De Quincey's famous "On the Knocking at the Gate in Macbeth" asks how it is that we are brought to sympathize with Macbeth, ultimately concluding that, in order that we feel sympathy for Macbeth and Lady Macbeth:

> The murderers, and the murder, must be insulated—cut off by an immeasurable gulph from the ordinary tide and succession of human affairs—locked up and sequestered in some deep recess; we must be made sensible that the world of ordinary life is suddenly arrested—laid asleep—tranced—racked into a dread armistice: time must be annihilated; relation to things without abolished; and all must pass self-withdrawn into a deep syncope and suspension of earthly passion.

For De Quincey, Macbeth and his wife must be totally removed from the normal processes of the world – time and their relationship to the outside world must not only be suspended but "annihilated" and "abolished," which places the world of Macbeth in the liminal space of dreams, where "ordinary life is suddenly arrested." Hazlitt understands Macbeth in similar terms; it is a play of "unruly chaos" that is full of "strange and forbidden things where the ground rocks under our feet" (17).[15] His analysis of Macbeth as standing "in doubt between the world of reality and the world of fancy" highlights the increased liminality of the play through the titular character. Hazlitt continues his description of the Thane-turned-king by saying that "all is tumult and disorder within and without his mind" (18). These early readings were primarily psychological in focus, asking what the state of Macbeth's mind could have been throughout the play, and what effects the play could have achieved on the audience.

Despite their psychological focus, however, questions that we would now call ecological were central to past criticism. Both De Quincey and Hazlitt mention the relationship between Macbeth and his environment, although usually in passing on their way to more traditionally

[14] T.S. Eliot refers to Macbeth's "vagueness of motive" in his introduction to *The Wheel of Fire*. Kott says that the play shows "history as a nightmare" in which "everyone is enveloped" and that "a production of Macbeth not evoking a picture of the world flooded with blood, would inevitably be false" (86). Hazlitt also remarks that Macbeth is driven "like a vessel before a storm" (11), and that "Richard is cruel from nature and constitution. Macbeth becomes so from accidental circumstances" (47). Kott adds that "Richard's cruelties mean death sentences. Most of them are executed off stage. In *Macbeth*, death, crime, murder are concrete" (87).

[15] This particular description will become important later.

psychological questions. Kott, too, points out that Macbeth is "unable to blow the world up" (97). Many of their concerns and insights – specifically, that the heart of the play is found in the relationship between the characters and their environment, and their characterization of the world of the play as tumultuous and liminal – continue to feature as central in contemporary criticism of *Macbeth*, and many of these insights can be reread in the context of ecological concerns.

It is this aspect of *Macbeth* that I will focus on in this chapter – the play's investigation of the human's relationship to the systems into which they are embedded. The play presents us with an ecology disrupted on multiple levels: political, social, moral, and affordative. As *Macbeth* follows the downfall of Macbeth and Lady Macbeth, it provides a model of how disruption of these systems affects individuals, their patterns of life, and the ramifications that changing the latter have for our ability to perceive, interact with, and project ourselves forward into the world. *Macbeth* provides an ideal arena for asking how the systems that form the warp and weft of our day-to-day lives condition our ability to imagine ourselves as agents, and allows us to begin with a simple question – what of the martlets – and build it into a larger theory of the phenomenology of possible action.

Examining the relationship between humans and systems in *Macbeth* will involve asking what interpretive possibilities are opened up by examining more closely the mechanisms of the unruliness and chaos that mark so much of the setting, and will involve using the way the play views its environment to understand several of the more baffling or opaque moments of the action. This analysis will eventually bring us back to the martlets scene, allowing for an understanding of it as something other than simply creating contrast with the disordered world that is to come. In doing so, I will also read the play contiguously with but differently from past scholars: I will look at the play as an ecology in crisis, in which Macbeth's transgression

reverberates throughout a series of interconnected systems which, in turn, changes the types of life they are able to support. This reading moves away from understanding *Macbeth* as depicting a merely human world in a state of exception, where the ecological effects are simply Renaissance figures for the relationship between king and world. I will also try to complicate our understanding of Macbeth's agency in bringing about this crisis, rather than viewing him merely as a vessel driven before a storm, and build an understanding of nature in the play as something other than "nightmarishly impenetrable and close" (Kott 89).

Doubling the Dagger

Shortly after Banquo's remarks about the temple-haunting martlets, the play progresses toward its defining tragic moment, and Macbeth delivers the dagger soliloquy, which directly precedes Duncan's murder:

> Is this a dagger which I see before me
> The handle toward my hand? Come, let me clutch thee
> I have the not, and yet I see the still.
> Art thou not, fatal vision, sensible
> To feeling as to sight? Or art thou but
> A dagger of the mind, a false creation
> Proceeding from the heat-oppressed brain?
> I see thee yet, in form as palpable
> As this which now I draw.
> Thou marshall'st me the way that I was going,
> And such an instrument I was to use.
> Mine eyes are made the fools o'th' other senses,
> Or else worth all the rest. I see the still:
> And on thy blade and dudgeon gouts of blood,
> Which was not so before. There's no such thing,
> It is the bloody business which informs
> Thus to my eyes. (2.1.35-50)

There is a tradition of reading the dagger speech, as Kevin Curran points out, that understands it as "simply disclosing some form of interiority" (393). This speech, especially for those readers focused on the psychology of the individual characters, shows Macbeth coming to terms with an idea that already exists in his consciousness, and the disorder in the speech mirrors

the disorder in Macbeth's inner world. There are other ways of looking at the function of the dagger, however: Curran's reading of the dagger largely centers around the sensible (rather than mental) nature of the dagger, and the nondualistic relationship between thought and action that structures the soliloquy. Curran points out that "Macbeth's visual, sensory experience of the dagger derives from an objectified future event, not from an originary immaterial idea" (396) and that "agency emerges – like consciousness and cognition more generally – from a sensory encounter with the instrument and should be thought of as something distributed *among* person and object" (394). Curran is asking, in effect, what does the sensible dagger *do*, and argues that it provides a sensory nucleus of condensation for Macbeth's thinking about murder.

Curran's consideration of the dagger – and his reading that centers around the sensory experience of the dagger and the porous boundary between mind and body – is one of the many recent phenomenological considerations of Shakespeare, and of Renaissance literature more broadly.[16] Following the phenomenological turn in Early Modern Studies, I will also press toward a model that moves further into considering the relationship between self and world by bringing affordances as an explanatory lens for interrogating how Macbeth's relationship to his physical, social, and ecological world shapes the affordances he is able to perceive and act on.

The dagger speech is a moment when Hazlitt's "tumult and disorder" becomes viscerally real to both Macbeth and the audience. This disorder presents itself first as a series of questions: "is this a dagger," followed by "art thou … sensible to / Feeling as to sight? Or art thou but / A dagger of the mind?" Macbeth's questioning of the relationship between his senses and the dagger reduces his certainty rather than increasing it; after drawing his own blade, he cannot decide if his eyes are "made the fools o'th' other senses" or "worth all the rest." His attempt at

[16] A recent issue of *Criticism* was devoted to phenomenology and Shakespeare. See also Bruce Smith's *Phenomenal Shakespeare* and Lupton's *Shakespeare Dwelling*.

resolving the phantasmal dagger for good – asserting that "there's no such thing" – further increases the disorder of the monologue, triggering an almost hallucinatory vision of the world in darkness. The disorder in this passage is so thorough that a global analysis of what is happening here is – at best – an almost impossible challenge, and one of the reasons that so many treatments of the dagger speech focus on either Macbeth's state of mind (which allows one to avoid picking through the chaos) or on the dagger itself, which is at least functionally (if not ontologically) clear.

Looking at Gibson's characterization of the Gestalt psychologists his work is based on reveals some correspondences with Macbeth's experience with the dagger. When describing the work of Kurt Koffka and Kurt Lewin, Gibson writes:

> *Valences* for Lewin had corresponding *vectors*, which could be represented as arrows pushing the observer toward or away from the object … no one … could think of them as physical … they must therefore be phenomenal, given the assumption of dualism. If there were two objects, and if the valence could not belong to the physical object, it must belong to the phenomenal object – to what Koffka called the "behavioral" object but not to the "geographical" object. The valence of an object was bestowed upon it in experience, and bestowed by need of the observer … **For Koffka it was the phenomenal postbox that invited letter-mailing, not the *physical* postbox** (138-39, emphasis mine).

The dagger speech presents us with a moment when it is clear that the phenomenal object is inviting action: as mentioned, the function of the dagger is one point of clarity in the speech – it acts as a marshal, pointing Macbeth toward the chamber of the king. The appearance of the phenomenal dagger as a separate object, and one that exists for Macbeth's senses unevenly, is the result of the breakdown of the normal process of resolving the tension between phenomenal and actual object by exploiting the affordance that draws one to the object. The problem is not that the affordances of the dagger are unclear or physically difficult for Macbeth to access, but that exploitation of the dagger's stab-ability will trigger a disruption in Macbeth's larger ecological niche. Stabbing the king is physically trivial (especially after his grooms are drugged)

but progressing to that point requires Macbeth to traverse – and destroy – the barriers that exist in his social and political landscape of affordances.

Other categories that Koffka introduces are helpful for understanding Macbeth's relationship to the dagger. The former's description of the emergence of demand character is more complicated than Gibson allows:

> The dynamic situation then, is this: I have a need which, for the moment, cannot be satisfied; then an object appears in my field which may serve to relieve that tension, and then this object becomes endowed with a demand character – the emergence of the particular object and its endowment with a demand character may actually be two different moments, but it may also be that the object emerges simultaneously with the demand character (Koffka 354).

The emergence of an object with a "demand character" fairly accurately describes the emergence of the dagger of the mind. When a desire whose satisfaction is not trivial appears, objects can become endowed with a certain type of duality: they become charged with our need for them and with our relationship to their potential application. In Macbeth's case, however, the tension between intent and ability is not purely physical; Macbeth's responsibility to Duncan is one of "double trust," and the former should "gainst his murderer shut the door, / Not bear the knife" himself (1.7.12-16). The "kind of tension" which "will determine our responses: attack, flight, approach, succor, disregard, compassion, and so forth" (Koffka 362) can emerge from social, moral, or environmental pressures.

As Macbeth mentions in the previous act, Duncan is there "in double trust" (1.7.12) and the king's "virtues / Will plead like angels, trumpet-tongued against / The deep damnation of his taking-off" (14-16). Macbeth must make himself deaf to the trumpet-tongued angels, and the disorder in the dagger speech is due to the difficulty of this process and the severity of the phenomenal upheaval that Macbeth knows will occur in the wake of the murder. This double trust is posed as relational: Macbeth is Duncan's "kinsman and his subject" and "his host" (1.7.13-14). Macbeth's first thoughts are not of Duncan's character or virtue but of the King's

relationship to him. The structures that will be most harmed by Macbeth's transgressions are those that he feels pushing back on him most strongly, and it is only after these structural considerations that Macbeth adds, "Besides, this Duncan / Hath borne his faculties so meek, hath been / So clear in his great office" (1.7.16-18). It is worth noting, too, that the appearance of the dagger of the mind is the result of a normal process being interrupted or corrupted, rather than as a result of a process that is inherently corrupt.

Returning to Koffka's 1935 *Principles of Gestalt Psychology* allows us to continue to build out our reading of the dagger speech. In the book, Koffka describes the agency of objects in the world differently than Gibson. Koffka constructs a sort of natural state argument, saying that "a fruit says, 'eat me'; water says, 'drink me'; thunder says 'fear me'" for "primitive man" (7). Koffka further describes the advancement of knowledge as "[becoming] more and more indirect, and action … more and more intellectualized" (7). Koffka's assertion that the world speaks only for "primitive man" is eurocentric nonsense, but there is a central insight here: that our phenomenological reaction to objects is conditioned and mediated by a relationship to the world that is at times direct, at times intellectualized, and at times a mixture of the two.

When our normal relationship to our affordative environment is disrupted, these other modes of relationship – the split between phenomenal and physical objects and the world that speaks and acts – emerge. There is no schematic relationship to be drawn, at least in the case of Macbeth, that lets us understand with total clarity why disruption appears sometimes as the one, sometimes the other, and perhaps sometimes as an even more disjointed mode of encountering the world. The landscape of affordances, as Hazlitt would have it, begins to shift and rock beneath our (and Macbeth's) feet and becomes increasingly difficult to read or traverse. These other modes of affordative engagement occur as a normal part of navigating the landscape of

affordances, but not with such intensity and disruptive power as they show up in Macbeth's dagger speech.

One curious feature of the dagger speech is that, as it progresses, Macbeth's world comes to resemble the vibrant, agential world described by Koffka. At the beginning of the dagger speech, the instrument merely marshals Macbeth; by the end, the "sure and firm-set earth" hears him, the "very stones prate" of his whereabout, and the bell "invites" him, and summons Duncan "to Heaven, or to hell." Macbeth's disruption of his normal affordative landscape – via the disruption of his relationship to his social and political obligations – has turned what was previously a world composed of relatively straightforward affordances into one that is full of "strange and forbidden things where the ground rocks under our feet" (Hazlitt 17).

The dagger first begins as a mere possibility – the symbol of a possible action or intentional arc without specificity or form – and becomes more functionally resolved as the speech progresses and as Macbeth recognizes its similarity to his own. At first, the phenomenal dagger merely affords thought or marshaling; but once its similarity to Macbeth's physical dagger is realized, it bears the marks of its real affordance, murdering the king. The process is not straightforward for Macbeth, however; coming too close to "the bloody business," Macbeth's speech rears back to the "one half world," but is quickly re-centered by the magnetic pull of the dagger on "wither'd murder" and his sentinel the wolf. By mentioning Tarquin, Macbeth is coming closer to imagining the crime – he picks a narrative model for a transgression that happens at night under the roof of the transgressor. Macbeth imagines Tarquin moving as a "ghost" – another image of insubstantiality – but worries that the "sure and firm-set earth" will hear his steps and it stones will "prate of his whereabout" – the earth, too, becomes more functionally resolved as Macbeth imagines more specifics of the crime.

Macbeth's insertion of Tarquin, a well-known violator of domestic privacy and bodily integrity, performs multiple functions. In addition to sexualizing the murder of Duncan, it introduces an understanding of Macbeth's transgression as not isolated or disconnected from history, but as a repetition of a pattern that has occurred in other kingdoms. Tarquin's rape of Lucretia is an abuse of hospitality, contra Duncan's description of the martlets on seeing Inverness castle. Referencing Tarquin also indicates a worry that such a deed can disrupt the political ecology permanently; Tarquin was well-known as the last king of Rome before the Republic. Notice, too, that Tarquin's ghost-like motion precedes Macbeth's worry about the stones and the firm-set earth; he must first move through those systems that prevent him from understanding the dagger as affording murder before he can land in the physical reality of his own situation.

Before he mentions Tarquin, however, Macbeth brings in an image of ecological disruption. Mention of the bloody business conjures up dead nature, wicked dreams, and wither'd murder. These are inversions of the sleep that knits the ravelled sleeve of care, and anticipate the restless, jittery disequilibrium that characterizes so much of the rest of the play. This is just as much an attempt to clear ground for the deed as it is a foreshadowing; Macbeth cannot imagine the act of murder until he undoes the systems into which he is embedded that remove that affordance from the topography of his intention. He begins by triangulating between the experience he has just had with the witches and one of the largest and most general systems into which he is placed, the idea of "nature," a byword for the ideal, ordered Renaissance world. He can only think in generalities, initially – articulating only the image of Hecate celebrating offerings and "wither'd murder" guarded by a wolf, before moving to Tarquin.

It is also in this moment of narrative identification that Macbeth first imagines the physical acts he will need to undertake in order to murder Duncan, albeit still at one remove. He begins, too, to unmake more specific systems that form the topography of his affordative landscape. Tarquin does double work here, undoing both the codes of hospitality that forbid hosts from doing harm to their guests and undoing the bond of protection and service that is supposed to exist between a king and his subjects. The segue into Macbeth imagining himself moving to Duncan's bedchamber can only occur after he has imaginatively unbuilt the topography-sustaining ecologies – in this case moral and social inhibitions – that hide his desired act.

This is partially why Macbeth understands the path to Duncan's chamber as a central obstacle to the murder. When Macbeth worries about the earth and the stones, he is worrying about his relationship to the topography of the terrain between himself and the deed. The landscape is figured as possessing agency to act against his progress toward the king and the kingdom. This topographical progress, in Macbeth's conceptualization, is a necessary part of exploiting the affordances of the dagger. It is not enough that it be appropriately constructed or that it be capable of releasing gouts of blood; exploitation of that affordance requires not only a conceptual but also a physical navigation, one that the very landscape itself seems to rise against.

Macbeth's central fear, though, is that this stony announcement will "take the present horror from the time / Which now suits with it." It is unclear which of two things Macbeth is worried about here: one, a failure of silence surrounding the unthinkable core of his deed (which he approaches only elliptically in his speech) or two, that it will somehow drain or externalize the emotion appropriate to it. Both of these, however, figure a failure of containment (similar to that articulated by De Quincey) and a disruption of ecological processes. Even the closed, tight

ecology of the murder, which has a "horror … which suits with it" is unsustainable, a tenuousness that has consequences for the wider world after the murder is carried out.

The Affordative Landscape

Thinking beyond the dagger speech, Macbeth understands the potential for ecological disruption from the moment he first imagines the possible murder of the king. When contemplating the prophesy of the witches after he becomes Thane of Cawdor, Macbeth first imagines murdering the king, a thought which he immediately turns away from, saying "my thought, whose murder yet is but fantastical / Shakes so my single state of man that function / Is smothered in surmise, and nothing is" (1.3.139-41). Here, Macbeth is connecting three things that function as central engines in the play's dissolution: Macbeth's ability to imagine himself as a coherent individual, his single state of man; his ability to imagine the world as other than it is, for good or for ill; and his "function," his ability to act in the world. Agency, for Macbeth, is tied to his social identity and his ability to be certain in his knowledge. Surmise and murder – the latter already attributed to Macbeth's thought rather than the man himself – cause not only a cessation of agency but a shockingly stark ontological statement more reminiscent of *King Lear* than *Macbeth*: "nothing is." Macbeth experiences these potential or future changes as physical sensations – he is shaken and smothered by the weight of his thoughts, physically inhibited from walking these paths through the landscape of affordances. Lady Macbeth also imagines her preparations for murder as a physical change: she wants her blood to be made "thick" and asks to "stop up" her "access and passage to remorse" in order to be able to accomplish murder (1.5.42-43).

Macbeth is also beginning to think through how to work around these inhibitions. In the very next act, after Malcolm is named Prince of Cumberland, Macbeth realizes "that is a step / On which I must fall down or else o'erleap," (1.4.48-49) immediately coming to terms with the Prince's potential murder, asking "Stars, hide your fires; / Let not light see my black and deep desires, / The eye wink at the hand" (1.4.50-52). This is not only a predictor of things to come (Banquo later remarks that there are no stars in the night sky) but a strengthening of the connection between disruptions in the natural world and Macbeth's deeds, in addition to a statement of strategy. In order to do that which he knows is wrong and to indulge his black and deep desires, Macbeth has to turn his sight away until the deed is done. Where one act before he was disturbed by his single state of man being shaken, he is now embracing it as a means to an end. This same method is suggested by Lady Macbeth in the next act, when she asks that her "keen knife see not the wound it makes / Nor heaven peep through the blanket of the dark / To cry 'Hold, hold'" (1.5.51-53). By the end of the first act, Macbeth will have – in word if not in deed – fully embraced both the means necessary to commit the murder and the resulting destabilization it will have on his single state of man. The act ends with Macbeth saying that he is "settled, and [bends] up / Each corporal agent to this terrible feat" (1.7.79-80), splitting himself apart at the site of agency.

The method by which Lady Macbeth and Macbeth imagine these transgressions as being made possible has particular resonance for affordance theory: in the first act, they both express a desire that sight be hidden; in the third act, Macbeth repeats this desire, asking "seeling night" to "scarf up the tender eye of pitiful day" (3.2.49-50). The desire here is not just for momentary conditions conducive to murder and covert action; Macbeth desires permanent alteration of the environment and the ecosystem. His requests are also for the removal of the possibility of sight,

which is – according to Gibson – the *sine qua non* of the perception of affordances. But Macbeth and Lady Macbeth also ask for not only sight but also sight of consequences to be removed: Lady Macbeth wants the "keen knife" to "see not the wound it makes," and Macbeth later wants the "invisible hand" to "Cancel and tear to pieces that great bond / Which keeps [him] pale" (3.2.52-53).

It is worth noting here that Gibson did not offer any speculation as to how affordances are perceived in the environment by people who have limited or no vision – that is, for people who primarily access the affordative landscape by means other than sight. Nothing in affordance theory, I think, requires that the information for assessing the affordative landscape be accessed visually. Reaching out and touching a glass, or setting one finger on the glass's rim while pouring provides access to the same set of affordances (it is graspable and drink-out-able, fillable up to this point, etc.) The conceptual entailments of sightlessness for the world of *Macbeth*, then, do not have to be universals for affordance theory; they are, instead, one way of thinking through what *losing access* to habitual ways of encountering affordances can mean.

What the Macbeths want is access to affordances without the prerequisites of affordative perception and access to affordances without knowledge of the consequence of those actions. One way of thinking through the ecological ramifications of this approach to affordative access is to look at Tim Ingold's idea of the taskscape, as outlined in his hallmark paper "The temporality of the landscape." In it, Ingold introduces what he calls a "dwelling perspective, according to which the landscape is constituted as an enduring record of – and testimony to – the lives and works of past generations who have dwelt within it" (152). The landscape is, in Ingold's view, a constructed record of the taskscape – the latter defined as the "array of related activities" that is produced by and produces a way of life (158). The temporality of the taskscape

– the way in which it extends forwards and backwards in time – "is essentially social" (159), because "people, in the performance of their tasks, *also attend to one another*" (160). These interwoven systems create the landscape-as-embodied-taskscape: "a pattern of activities 'collapsed' into an array of features" (162).

Ingold gives us a way of looking anew at De Quincey's famous analysis that "The murderers, and the murder, must be insulated—cut off by an immeasurable gulph from the ordinary tide and succession of human affairs—locked up and sequestered in some deep recess." In order to live in the world as they do, Macbeth and Lady Macbeth must not only separate themselves from society and custom but *attack the very framework that makes society and custom possible*. They attack sight and consequence itself, the basic coordinates of access to affordances and the taskscapes that create them, and the temporality that allows that taskscape to be projected forward into the future.

After Macbeth murders the king, the results of his disruption become immediately visible: he finds himself unable to say "amen," which, as Daniel Swift has pointed out, removes him from the "community of shared experience" (173). Macbeth hears a voice say "sleep no more," which will separate him from "Sleep that knits up the raveled sleave of care, / The death of each day's life, sore labor's bath, / Balm of hurt minds, great nature's second course, / Chief nourisher in life's feast" (2.2.40-43). Macbeth's concern about being separated from sleep is an index of his coming removal from the sustaining rhythms of life and the taskscape – bathing, healing, repairing, and feasting, all of which are forces that counteract the entropic decay that pulls the taskscape apart. In being so removed, Macbeth will lose access to the types of work that these recuperative forces enable – if sore labor has no bath, there can be no sore labor, and – as

we will see in the next act – a feast without a chief nourisher (Macbeth is unable to "give the cheer" during his own banquet) is a poor feast indeed (3.4.33).

The disruption Macbeth fears is a principally ecological one, both in a more expansive sense as his relationships to the taskscape are disrupted, and in a stricter sense: Macbeth fears that he has been removed from the ecological patterns of nature – those of mental and physical renewal, and sustenance, which are provided by "great nature." His last concern – and possibly his most telling – is that "all great Neptune's ocean" cannot "was this blood / Clean from [his] hand," and that "[his] hand will rather / The multitudinous seas incarnadine, / Making the green one red".[17] This is a striking image of human ability to change the landscape, and a failure of natural affordances.

Macbeth's concern with polluting the multitudinous seas echoes Richard's claim that "Not all the water in the rough rude sea / Can wash the balm off from an anointed king," substituting oil for blood (3.2.54-55). What is striking about Macbeth's anointment, however, is that it does not remain local, but spreads to "the multitudinous seas," their altered appearance indicating their inability to fulfill the function Macbeth needs them for the most.[18] This is also a moment when, similar to Macbeth's worries in the dagger speech, the world becomes not only attuned to his actions but also a part of them. The oceans will fail to clean his hands, and they will bear marks of and bear witness to his actions – much like the stones that failed to prate of his whereabout.

[17] This is one of the few specific plot points that Simon Forman remarks on in his account of *Macbeth*, describing that "when Macbeth had murdered the king, the blood on his hands could not be washed off by any means, nor from his wives hands, which handed the bloody daggers in hiding them, which by means they became both much amazed and affronted." Notice that Forman connects the blood on their hands not with the deed but with the instrument used to commit it – with daggers that they carried (235, qtd. in Brooke).

[18] This is happening in the twenty-first century in a somewhat more literal way: warming and acidification has made oceans inhospitable for lifeforms (such as coral) and structures (such as glaciers) that it was previously able to support.

Macbeth's pronouncement after he fails to kill Fleance echoes and further specifies this relationship to the natural world. Upon hearing that Banquo's heir has escaped, Macbeth proclaims that he had "else been perfect – / Whole as the marble, founded as the rock, / As broad, and general, as the casing air" (3.4.21-23). The landscape of Macbeth's world is in flux – shaken by earthquakes, bereft of stars, the very day itself strangled by the night. Macbeth identifies with this landscape, but desires the sure and firm set world he had before the murder of the king. Because his affordative landscape has changed so radically and unpredictably, his desires return to the basic coordinates of motion for land animals – flat, firm ground with only air above it. Macbeth is instead "in blood / Stepped in so far, that … Returning were as tedious as go o'er" having fallen into an affordance-blocking pool of his own making, a local version of the great incarnadined seas (3.4.137-39).

Instead, Macbeth stands in doubt between the world that he knows and the revised phenomenal landscape he is creating and entrenching through his actions. His "fancy" represents the effects of this new intentional landscape and the disrupted ecology that causes it. Because of this, and not because of his nature, "all is tumult and disorder within and without his mind" (Hazlitt 18). Similarly, although Macbeth "endeavours to escape from reflection on his crimes by repelling their consequences, and banishes remorse for the past by the meditation of future mischief," this endeavoring is an epiphenomenon of the transformation he causes in his phenomenal landscape (Hazlitt 18). In fact, his reflection and remorse frequently shows up in language that explicitly figures the landscape as an actant in his phenomenal world.

Macbeth's integrated relationship with the increasingly dissolving landscape is, in fact, a result of the way in which he surrenders agency to the objects in his environment. Unable to approach his desires and actions head-on, he instead succumbs to the pull of the vector that the

objects in his environment exert on him. In a way, he makes an opposite but complementary mistake to Gibson: where the latter denies the phenomenal pull that objects exert on individuals, the former gives himself over to this pull. The images he thinks through early in the play have some hint of this – daggers marshal, stones prate, and bells summon. But the further he dives into transgression, the more he imagines himself as similar to the landscape, a landscape to which he increasingly surrenders his agency. This is why Macbeth's images in the latter half of the play frequently figure himself as becoming a part of or fused with the landscape: after Banquo is killed but Fleance escapes, he wants to be "whole as the marble, founded as the rock, / As broad, and general, as the casing air" and why he imagines himself to be "stepped in blood."

Understanding Macbeth's desire to merge with the physical environment allows us to understand the environmental inversions that occur as not only figuring a world disrupted by the removal of its rightful ruler, but also as one in which the boundaries between and individual and the world have become so porous that Macbeth's pathology begins to infect nature itself. Beckett is famous for having encouraged the understanding of the theatre as representing the inner space of a skull; Macbeth's world figures something similar to this three hundred and sixty years earlier. This is not to say that the hawk killed by an owl or the horses that eat each other are fantasies or psychological metaphors, but that the world of the play is so liminal by the end that a distinction between the physical and the psychological is essentially meaningless.

The disturbances caused by Macbeth's murder of the king are not local to himself and Lady Macbeth. In the scene after Duncan is discovered dead, Ross and an old man meet briefly to discuss the events. The scene takes place during day, but we are told that "dark night strangles the traveling lamp" (2.4.7), a continuation of the darkness that both Macbeth and Lady Macbeth had wished to hide their desires and deeds. The old man relays that "On Tuesday last, / A falcon,

tow'ring in her pride of place, / Was by a mousing owl hawked at and killed" (2.4.12-13); more than a direct metaphor for Macbeth's murder of the king, this is an index of the ecological ramifications Macbeth's disruption of the affordative landscape. Duncan's horses, too, "broke their stalls, flung out, / Contending 'gainst obedience, as they would make / War with mankind" and ate each other (2.4.15-17). Nature has turned wild and ungovernable in the wake of the king's death; the landscape of affordances has begun to shift and the mutual interlocking networks that make some actions available and others inaccessible have dissolved, opening up some narrow new possibilities for man and animal alike.

The remedy for Macbeth's transgressions and increasing body count is similarly located at the intersection between individuals and the environment – the apparition's prophesy that "Macbeth shall never vanquished be, until / Great Birnam Wood to high Dunsinan Hill / Shall come against him" (4.1.107-109) figures not only an act by humans – the mustering of an army at the hands of Malcolm and Macduff – but the reaction of the ecological system itself to the disequilibrium imposed by Macbeth. So while his responding question, "who can impress the forest, bid the tree / Unfix his earthbound root" may seem like a curious moment of misunderstanding (4.1.110-11) it is in fact Macbeth's steady movement away from his own agency that has blinded him to the exact effect he has had on the world of the play and the ecological systems of Scotland, both natural and social.

Returning to the martlets allows us to build a study in contrasts. The dagger speech takes objects and individuals out of context, focusing on their particular affordative properties in order to remake the landscape in a deliberate way, bringing the multiple dependent elements out of equilibrium with each other. The actions it focuses on are irreversible and non-repeatable, and lead away from rather than toward orderly generation and succession. The martlets, on the other

hand, live in a castle that "hath a pleasant seat," indicating a harmony in the relationship between the building and its environment, and occupy air which "nimbly and sweetly" – that is, carefully and with some pleasure – recommends itself to "gentle senses." The action of the creatures, too, stands in stark contrast to the relationship Macbeth builds to the world – they fill every "jutty, frieze, / Buttress" and "coign of vantage" with their "pendant bed and procreant cradle," filling available space in a way that adapts to rather than changing what is already present. The martlets' reward for this – or the state of being this enters them into – is one characterized by far sight predicated on a strong keystone and one which allows for rest and reproduction.

Compare, too, Duncan's description of the Martlets with Gibson's characterization of the ecological relationship between creature and environment: "There are all kinds of nutrients in the world … all sorts of shelters or hiding places, such as holes, crevices and caves … in architecture a niche is a place that is suitable for a piece of statuary, a place into which the object fits. In ecology a niche is a setting of environmental features that are suitable for an animal, into which it fits metaphorically" (129). Duncan sees ecological relationships in the same way Gibson sees ecological relationships. In the same way that Gibson fails to find Koffka and Lewin's theories of invitation and valences "intelligible" (139), Duncan believes that "there's no art / To find the mind's construction in the face" (1.4.11-12). Both Gibson and Duncan admit that there is a relationship between the internal affordative landscape and the physical facts of affordances, but Gibson accounts for this relationship by flattening it into the physical, and Duncan accounts for this relationship by assuming that the connection between the two is illegible. Because of this, similarly to Gibson's disavowal of the "demand character" of objects that arises in the "field of phenomenal experience" (139), Duncan fails to imagine the pull that particular object or actions

can have. Gibson and Duncan both fail to account for the strong role internal factors play in shaping the affordative landscape.

CHAPTER 2 – DEARER THAN EYESIGHT, SPACE, AND LIBERTY: ABSTRACTION AND AFFORDANCE IN *KING LEAR*

There is a strange moment in *Lear*, when Edgar – disguised as Poor Tom – is leading his blinded father, ostensibly to leap from the Cliffs of Dover to his death. Edgar leads him in the direction of Dover, the heath and the rest of the characters in the play, stopping short of the cliffs but trying to convince his father that he is in fact approaching a precipice. When Gloucester protests that "methinks the ground is even," his son replies "Horrible steep," (4.6.3) and further insists that the sea is audible. When Gloucester remains unconvinced, Edgar gives a vivid description of a scene imagined from above. His description is shockingly dense, connecting crows, choughs, beetles, samphire, and fishermen to larger networks of trade and the entire sea in fourteen lines, while never losing a physical sense of place. Jan Kott briefly mentions this scene in *Shakespeare Our Contemporary*, saying that "no other Shakespearean landscape is so exact, precise and clear as this one," and likens it to a Breughel painting (143).

The precision and vividness of Edgar's imagined landscape is particularly out-of-place in the world of *Lear*, whose geography is vague and disorienting, and whose terrain has been stripped down to the level of its barest coordinates by this point in the play. The scene described by Edgar seems in some ways like the polar opposite of the heath: a dense and vibrant tapestry of activity, both human and animal, that extends outward into the multiple systems that support and enable human endeavors. Edgar's description and this scene are – far from being a mere imaginative interlude or a flight of fancy – central to the way the play imagines and critiques the intersection between space, the social world, and access to affordances. The scene on the imagined Cliffs of Dover also presents a powerful counterpoint to the gradual disintegration of the world that occurs as Lear's lack of sight becomes enacted as a phenomenal landscape; in the same way that *Much Ado about Nothing* is a comedy that almost becomes a tragedy, Edgar's

imagined description of Dover presents us with *Lear* through a mirror darkly, giving us a view into the world of the play as it might have been.

Before looking at Gloucester and Edgar's experiences more in-depth, however, it is useful to establish a general sense of how *Lear* constructs its world, and what sort of world we start with and what sort we are left with. The overall goal of this chapter is to look at the way space, sight, and motion are figured in *Lear* and Renaissance culture overall as tools for knowledge about and control over the world, and to look at how enacting an impoverished understanding of these three basic coordinates can dissolve the fabric that supports our connections to others and our access to affordances. That is, I will be looking at how Lear's misperception – how his lack of sight and the logics that this lack of sight is associated with – becomes literalized in the landscape, and how this in turn drives the world of the play.

King Lear is a play about the breakdown of three central structures that support access to affordative structures and the repercussions of this breakdown for the characters and the world of the play. *Lear* dramatizes failure of sight, failure of motion, and an abrupt removal from social embeddedness that occurs when sight and motion stop providing reliable access to the world. These three failures drive the action of *Lear* and propel the characters outward and downward in an entropic pattern; while the individuals in the play are blinded, driven mad, and stripped of agency by these failures, they move further apart and away from access to affordative possibilities in the world.

Throughout this process, the world the characters of the play inhabit becomes the site of a second, simultaneous examination. The landscape of *Lear*, as much an active participant as the characters, is a test case for what happens when a flat, impoverished understanding of relational systems becomes literalized. *Lear's* physical landscape is Lear's landscape of affordances made

manifest. The process of literalization and externalization is an extension of "the play's insistence that land and body, kingdom and family, are part and parcel of a spatial epistemology" and a facet of the fact that "the play's central tropes – body, kingdom, crown, eyes, and brain (and with them, life, power, authority, sight, and rationality) – are continually spatialized, dissected, and partitioned" (Traub 51). Traub's words are well-chosen: *Lear* is a drama of spatialization and partition and an investigation of the effects of these processes. Not only individuals but also the landscape and the social fabric of *Lear's* world itself is anatomized, cut apart and separated in an attempt to know and control.

Over the course of the play, the characters and landscape become increasingly marked by this abstract and impoverished understanding of space and relationships; the space of the play moves from a well-organized court to a series of separate households to a flat, featureless plain which is virtually without affordance. At the same time that Lear (and those around him) loses access to power and agency, the physical space of the play comes to more closely resemble his approach to the world. *Lear* continues the conceptual work started in *Macbeth*, the environment of which also showed marks of the dissolution of the social fabric and the increasing isolation of the king. In *Lear*, however, externalization of the conceptual structures that drive the king throughout the play is both more thorough and more complete than in *Macbeth*.

Before I begin investigating the play proper, it is worth mentioning the surprisingly strong and consistent history of critical reactions to the play. *Lear* is a notoriously difficult play to approach, both critically and in performance: Hazlitt's first words on it, in his *Characters of Shakespeare's Plays*, are that "we wish that we could pass this play over, and say nothing about it" (103). Similarly, Jan Kott remarks that it "gives one the impression of a high mountain that everyone admires, yet no one particularly wishes to climb," using a landscape metaphor to

indicate the particular difficulty of accessing the literary affordances of *Lear* (127). Curiously, Kott also points out that "it is as if the play had lost its power to excite on the stage and in reading," perhaps an indication that *Lear* has a fundamentally different affordative structure than other Shakespeare plays (Kott 127). A.C. Bradley calls *Lear* the "least popular of the famous four" and notes that "The 'general reader' … will sometimes speak of it with a certain distaste" (243). Both Bradley and Hazlitt view the play as, on some level, unperformable; Charles Lamb remarked in 1810 that Lear "is essentially impossible to be represented on a stage" (qtd. In Ioppolo xi). This was, of course, a literal truth from approximately 1681 until 1834; in the late seventeenth century, Nahum Tate "was compelled to offer some solace in the form of his revision of the play, which 'restored' the happy ending of the chronicles and the source play" (ibid. xii) and the original ending was not performed until William Macready "returned the original play to the stage" in the early nineteenth century (ibid. xiii).

Many critics consider there to be something fundamentally un- or antitheatrical about *Lear,* and argue that it is better encountered on the page than on the stage. It is nothing short of shocking that there is this level of critical consensus on any aspect of a play as complicated and frequently-studied as *Lear.* The play's refusal to offer redemption of either the characters or the social order rent asunder over the course of the play is part of this – but the play's intensely psychological focus and resistance to offering clear-cut moral evaluations contribute to the difficulty in approaching the play in performance or criticism as well.

Put in the language of affordance theory, *Lear* is a play that affords performance much less – or with much greater difficulty – than any other Shakespeare play. As I will argue, the flattening logic of the play and of Lear himself is presented and externalized so completely that it affects the not only the world of the play but the ability of the play to be performed. If *Lear* were

a piece of contemporary or postmodern art, the difficulty of performance in the service of a central conceptual whole (think of Beckett's *Breath,* or his later enclosed-space works) would present us with much less interpretive difficulty. And it is with this logic in mind that I will begin to make some sense of the strange art of *King Lear*, and see how we – as readers – can answer to its extremity.

The Love Test

From the beginning, *King Lear* presents us with a full and irrevocable demonstration of the conceptual structures that will drive the action throughout all five acts. The king understands his relationships and the kingdom only in abstract, quantitative terms; his approach to the world is aptly characterized by Valerie Traub as a type of "grim materialism" (49). The very first scene – the love test – unfolds entirely under the sign of Lear's attempt to quantify the relational and schematize the landscape. His mistake is analogous to confusing the map with the territory: Lear sees things in his environment as "quantitative and homogenous," a view that is only possible from above (Ingold 154). The true nature of the landscape – described by Ingold as "qualitative and heterogenous … a contoured and textured surface replete with diverse objects" eludes Lear throughout the play (154). He understands things in terms of abstracts: quantity of power, quantity of love, obligation as a numerical or financial debt. This understanding blinds him to the active particulars of the landscape as well as the texture of his social and affordative world.

Lear's initial treatment of land during the love test reveals the logics and conceptual frameworks he uses to understand both the landscape and his relationship to it, and is an excellent example of the spatialization, dissection, and partition that Traub mentions. When Goneril provides her answer to Lear, he describes the land he will bestow on her as "all these bounds even from this line, to this, / With shadowy forest and with champaigns riched, / With

plenteous rivers and wide-skirted meads" (1.1.61-63). For Lear, the definition of the territory is its boundaries on a map, and the salient features have no more specificity than broad biome categories. This is a description in line with Ingold's surveyor: while it describes features of the territory, it describes it with a surveyor's eye. We get no or only the most general sense of differentiation or activity; instead we get an inventory list and a suggestion of future use-value. We also get no indication of what portion of the kingdom this actually is – as with the rest of *Lear*, the geographical relationships involved are uncertain or illegible as a result of the reductive logic of the surveyor. The act being considered – the partition of the kingdom – relies on this logic to take place, and the damage that is done to the structure of the kingdom by this act has its genesis in the abstraction (and ultimately violence) this logic imposes on the lived experience of the land.

Lear's response to Regan echoes this logic: she is to receive "this ample third of our fair kingdom / No less in space, validity and pleasure" than Goneril's third (1.1.78-79). We see the foregrounding of abstract qualities and use value here again: "space," which is less a quality of land than it is a basic orientational dimension, is the fundamental term of equality. In describing a third of his kingdom this way, Lear is setting up the extreme fungibility of elements in his world prior to any explicitly financial concerns. "Validity" and "pleasure" also do surprisingly little to describe either the land itself or the imagined use for it. Not only is there no experience of the landscape, there is no experiencer: we have no sense of whose pleasure is being described, or in whose terms the validity of the landscape could be understood.

Lear's love test is not only an attempt to get his daughters to perform their love of him in public, but also an attempt to get them to perform his logic in public as well. Goneril tells Lear that she loves him "dearer than eyesight, space, and liberty" (1.1.54), which puts affordative

access, landscape, and love in equal terms: in order to make this sort of comparison intelligible, one must already imagine the land as seen from above, and imagine love as an exchangeable or comparable quantity – that is, one must be willing to spatialize and partition the most basic material of human existence. Her claim to love him "beyond what can be valued, rich or rare," rather than removing their relationship from an economic axis, squarely places it in line with material goods, forming a line from "what can be valued" to her quantity of love (1.1.55). Folded into this plane of equivalence are similarly "life, with grace, health, beauty, honor" (1.1.56). If anything, Goneril creates a more expansive version of what Lear does to the landscape, of which her later cruelty is a sort of echo.

It is no wonder that, with such a capacious answer preceding her, Regan begins with a gesture toward echoing her sister's excesses. Similarly, Regan's answer engages in the logic of Lear and Goneril: Regan is "an enemy to all other joys / Which the most precious square of sense possesses" (1.1.71-72), an answer which explicitly invokes a tool for measuring space (the square) and a hypothetical common scale that joins Goneril's eyesight, space, and liberty. Both of the daughters who will later turn on their father participate not only in the spectacle he has organized, as so many other critics have pointed out, but also participate in the very logic he uses to dissect and flatten the elements of his social and physical landscape – logic which will, ultimately, contribute to their turning on Lear in the latter part of the play.

Cordelia's refusal to answer is also a refusal to participate in the process of dissection and spatialization, and a rejection of Lear's economy of fungibility: when Lear asks her, "what can you say to draw / A third more opulent than your sisters" (1.1.83-84), her response is a simple "nothing" (1.1.85). She elaborates on this nothing a few lines later, telling her father: "I love your majesty / According to my bond, no more, no less" and that "you have begot me, bred me,

loved me. I / Return those duties back as are right fit" (1.1.90-1, 94-5). Although Cordelia does create a sort of equation here, it is one that relies on a lived, social context to become intelligible: hers is not an abstract, deindividualized understanding of space or relationships. Cordelia's logic, so to speak, can only be understood from the ground: the ground of human social relationships, the ground of human engagement and embeddedness in overdetermined and inseparable systems. Cordelia speaks in terms of a "bond" and "duties," which engages in the logic of feudal relationships rather than financial transactions, and maintains connections to socially governed and socially enabled affordances.[19]

In the context of the love test scene, however, this is also a rejection of the abstract overhead view that her father and sisters engage in, and a rejection of the flattening effect of that view. She cannot say anything to draw an opulent third because she cannot or will not engage in the logical flattening necessary to make that equivalence. Cordelia refuses to leave the ground and the groundedness of human experience. In doing so, she brings the idea of appropriateness, a consideration that is foreign to the relationships Lear understands. Contrary to Regan's "square of sense" or Goneril's all-encompassing "space and liberty," Cordelia returns her duties "as are right fit," a phrase which resonates with the affordative concept of an ecological or social niche and nods towards the social embeddedness of all action. Cordelia's is the on-the-ground understanding of the world of social relationships, where actions occur in a context and have boundaries. When she criticizes her sisters as saying "they love [Lear] all," she is further refusing to engage with their logic. They specify a surprising number of comparisons and coordinates for their love; the logic which escapes the bounds of Cordelia's "right fit" and "duty"

[19] See Halpern, *The Poetics of Primitive Accumulation.*

is only interpretable by her as "all;" to understand the logic of the comparisons in the love test scene is to engage in it.

The events that occur in the wake of the love test form the core of much of the rest of the play: Cordelia leaves with France, Kent is banished, and the two remaining daughters begin discussing ways to manage their father, with a decision to "do something, and i'th'heat" (1.1.306). The love test – a demonstration and affirmation of a certain sort of visual and spatial logic – begins the process of opening up a gulf at the heart of the play at whose bottom lies the heath scene. The pulling apart of social and spatial relationships during the love test is a direct result of the performance and enactment of the logics of spatialization, dissection, and – to add a term to Traub's analysis – equalization or making fungible. The results of this tearing at the social fabric will expand and integrate themselves into the world of the play over the course of the next five acts.

One of director and performance theorist Peter Brook's famous observations about *Lear* – that "we can approach *Lear* not as a linear narrative, but as a cluster of relationships" (91) and that "the object has many facets; many themes criss-cross its prismatic form" (92) allows us to think through the dissolution of the world in *Lear* as a function of the reconfiguration of certain *relationships,* rather than as a result of material changes. We can also imagine the dissolution of volitional possibilities as a result of the loss of the structures – themselves a result of the old configuration of relationships – that previously enabled particular sets of affordances. Brook's observation provides us an initial insight for using affordance theory to think through the dissolution of the kingdom and the dissolution of the king in similar terms. This is, it is worth noting, counter to the logic that the king employs at the beginning of the play; and, as such, is a good starting point to investigate the ways in which *Lear* is critical of Lear's logic.

Bruno Latour's ideas about groups can help us understand how these reconfigurations occur and how they can overhaul the landscape of the world so completely. Groups, Latour argues, "all need some people defining who they are, what they should be, what they have been" (31). Social groups do not exist *a priori* or even as fixed entities; they only admit of "a *performative* definition" and as such can reform radically in a relatively short amount of time (31). Similarly, Latour's idea that "no tie can be said to be durable and made of social stuff" (66) can help us understand the disintegration of the world in *Lear* and explain why – contra Lear's expectations – his daughters' obligations to him are not as durable as he had hoped. Social "stuff," by itself, affords relatively little and those affordances evaporate quickly. The social needs other material relationships to hold it in place and to enable or catalyze its affordances. And this explains why a play that is about the dissolution of relationships engages in so much discussion of and haggling over stuff: clothing, followers (and by extension food and bedding), housing, and so on.

It is, however, only this abstract social "stuff" that Lear is attempting to measure in the first act; when he asks his daughters to perform their love for him, Lear is requesting a performance of the strength of their social ties to him. These ties are assumed to be durable and persistent; Lear imagines that his daughters' love will prove strong enough to support not only himself but also his substantial train of followers. One of the central dramas in the play is the failure of this connective tissue as Regan and Goneril become untethered from any obligations to *Lear* – or, as Richard Halpern notes in *The Poetics of Primitive Accumulation*, how "in giving away his land he has given away all, for the kingship is nothing more than the power that accrued to him from owning the kingdom" (222). While the concept of ownership might not entirely capture a feudal relationship, the idea of material relationships determining social

relationships is apt. Cordelia's refusal to participate in the economy of fungibility is also a recognition of the less durable nature of social "stuff" – she rightly points out that a reconfiguration in her material conditions and her relationship with France will change her relationship to her father; her marriage will "carry / Half [her] love" (1.1.99-100).

These forces that rip apart and reconfigure relationships are made even more potent in *Lear* in large part because the landscape and taskscape of *Lear* is made of those relationships. From the very beginning of the play, it is clear to what degree even the geography of the world itself is a function of performed relationships. It is this close relationship between social performance and landscape that makes the physical world of *Lear* so susceptible to entropy as Lear's relationships dissolve over the course of the play. While the love test is frequently read in terms of its transactional language, it also establishes the space of the play as one that derives from the performance of relationship. Lear begins his entreaty to his daughters by asking "which of you shall we say doth love us most, / That we our largest bounty may extend" (1.1.50-51), and responds to their flattery with the aforementioned description of the land, bestowing upon Goneril land "With shadowy forests and with champaigns riched, / With plenteous rivers and wide-skirted meads" (1.1.62-63). Before Goneril performed her relationship to Lear, the land existed only as an abstraction – only as a section of the map that Lear calls for twenty lines earlier. The articulation of the relationship with Lear brings the land – as a rhetorical and social actant tied to Lear's particular logic – into being. The physical portions of the kingdom Lear is referring to exist before he bestows them in the love test, but not as fungible, transferable "land."

Similarly, Regan's response is met with land equal in "space, validity, and pleasure" (1.1.79), while Lear's response to Cordelia presents the converse of Lear's acts of rhetorical creation. While his warning that "nothing will come of nothing" is frequently read as

transactional, it also indicates a failure of creation: since Cordelia cannot perform her love, her third cannot be narratively created out of this social "stuff." Cordelia does, however, end up marrying France and leading his armies into battle, an early indication that the logic Lear uses to apportion land – the logic of the surveyor – exists only locally, rather than as a universal.

Central, then, to the action of *Lear* is an introduction and a criticism of a pervasive logic that has ties to anatomy (Traub), maps (Acheson), and economics: the logic of the surveyor.[20] Lear, as monarch, not only articulates but also enacts this logic, despite holding expectations that are mutually exclusive with its operation. The play has two major moments where the interrogation and effects of this logic come to a head: the first is Lear's experience on the heath, and the second is Gloucester's experience with Edgar at the cliffs of Dover. I will now examine these in turn, in order to bring into clearer focus how the play exposes the effects of the surveyor's perspective on affordative access.

The Heath

Lear's experience on the heath is the logical consequence of his understanding imposed on the world of the play as a law; his insistence on transactional relationships and his attempts to free affordances from their embedded systems flattens the affordative landscape. Lear pursues freedom from social ties and tries to achieve isolated agency throughout the play – he wants to "unburthened crawl toward death" (1.1.39). When he is locked out on the heath he is placed in the world that these pursuits have created – both literally, because his outcast state is at least partially a result of his own actions (although he may or may not be more sinned against than

[20] See also Stuart Elden's *Shakespearean Territories*.

sinning) and conceptually, because the heath is a physical manifestation of the logic with which he has approached the division of his kingdom. The heath is an image of unrestrained freedom; it is Gibson's basis of movement stripped down as far as possible; it is an empty, ideal plane, a geometer's fiction in which Lear can make any choice he wishes, without the encumbrance of owing or obligation born of relationships. Freedom, in the surveyor's sense, is also freedom from affordances and freedom from stuff, freedom those entanglements and objects which complicate our relationship to others and the landscape, pulling us in and investing us in the taskscape and the landscape of affordances that surround us.

The degree to which capitalist logic is central to *Lear* has been long debated; Richard Halpern summarizes one of the simpler accounts of capitalism in *Lear,* that of John Danby, as understanding "characters such as Kent and Cordelia embody the old 'feudal' virtues of loyalty and honor, while Goneril, Regan, and above all Edmund are prototypes of the capitalist 'New Man'" (216). One does not need to assign each character a side – or argue that capitalism itself is represented at all – in order to ask what economic logics are at work in the play, and how these might interact with the agency of individual characters.

Before he makes it to the heath, however, Lear continues to protest against the dissolution catalyzed by his own mode of understanding. As the confrontation with Goneril continues and she asks about the size of Lear's, "What need you five-and-twenty? Ten? Or five?" (2.4.257), the king responds:

> O, reason not the need: our basest beggars
> Are in the poorest thing superfluous:
> Allow not nature more than nature needs,
> Man's life's as cheap as beast's (2.4.260-63)

Lear's response further develops a number of the divisions that have been operating since the beginning of the play and will continue to inform its logic through Lear's death in the fifth act.

The elderly king sees stripping human accommodation to "need" as valuing "man's life as cheap as beast's." He uses Goneril's clothing to distinguish between bodily need and more complicated social affordances, pointing out that "nature needs not what thou gorgeous wear'st, / Which scarcely keeps thee warm" (2.4.265-66).

This appeal to social affordances follows directly on the heels of Lear telling Goneril that "thou art twice her love" after she offers Lear fifty followers compared to Regan's offer of twenty-five (2.4.256). Lear's insistence on love as quantifiable and performable in concrete terms is a continuation of the logic he employs in the initial love test, but here his response expands on this logic after his desires are met with increasing resistance. Lear's understanding of "true need" is relational and social – he wants to retain "the name, and all the additions to a king," which excludes "the sway, revenue, execution of the rest," a desire which Halpern describes as expecting "some residue of the royal office to adhere to him" (222). This desire forms one of the central paradoxes at the heart of the play: Lear wants these social ties to continue, but is incapable of viewing these relationships in terms other than transactional and numerical.[21]

At this moment, we are also given a window into the structure of Lear's affordative landscape: he is articulating his expectations about what one can and cannot expect to be afforded. He accuses Regan and Goneril of not allowing "more than nature needs," and argues that this approach makes "Our basest beggars" appear to be "in the poorest thing superfluous" and renders "Man's life … cheap as beast's," causing one to fall on the wrong side of the human/animal divide. Lear expects to be provided with more than the basic necessities of life, and views his train of knights as providing him with something necessary – dignity or a type of

[21] This reading resonates with Cavell's famous "The Avoidance of Love."

social recognition – above and beyond what nature provides beasts. This necessity relies on socially and politically enabled affordances. Without this provisioning, Lear would be, in his own words, as base as a beast. To strengthen his argument, he points out that Regan and Goneril are wearing clothes that afford no warmth but that they nonetheless view as fulfilling some unmet need. The two sisters do not take kindly to this line of argumentation or to Lear's continued raging and withdrawal, leaving their father behind and subsequently commanding Gloucester to lock his doors with Lear on the outside.

The locked castle traps Lear on the heath during a storm that, according to Kent's appraisal, "[gallows] the very wanderers of the dark / And makes them keep of their caves" (3.2.44-45). Nahum Tate's description of this place as a "desert heath" seems appropriate; Gloucester mentions in 2.4 that there is "scarce a bush" for "many miles about," a condition which cause "high winds" to "sorely rustle" (2.4.297-98). Trapped outside without any shelter, Lear's perception of the affordative structure of his surroundings is revised. This is the beginning of the central challenge that the heath presents to Lear and the audience in terms of the former's understanding of his need for dignity and social recognition. What should afford him shelter, Gloucester's castle, does not – and what should not be within the realm of Lear's consideration, the hovel, becomes a part of the landscape necessary to his survival.

The heath also presents Lear with a sort of affordative zero-point. In Gibson's description of affordances, a "horizontal, flat, extended, rigid surface" forms "quite literally the *basis* of the behavior of land animals" (131). It is the origin of land-animal behavior, and we know that the heath has "scarce a bush" for "many miles about" (2.4.297-98). That is, the heath is without "the furniture of the earth," without what Gibson calls "detached objects" that are some of the simplest and most common affordance-bearers (133). Lear comes face-to-face, here, with the

consequences of the logic that have driven his decision and understanding over the course of the play; he must either accept the heath or fight against it. To do the latter means, too, to fight against the understanding of relationships and affordances that has brought him to this pass.

This disintegration of the social networks into which Lear is embedded causes a similar disintegration of his affordative and volitional possibilities. In the same way that the landscape emerged as a result of performed social relationships in the love test, the heath emerges not only as a figure of but also as a result of Lear's loss of context. When Lear tells the sky "I tax not you, you elements, with unkindness. / I never gave you kingdom, called you children. / You owe me no subscription," he is not only repeating his fixation on "being more sinned against than sinning," he is rearticulating the landscape in terms of primarily social relationships (3.2.16-18).

Lear's language in this passage reproduces not only his relationship to his daughters but his relationship to his former subjects – and that in the language of economics. He does not "tax" the elements with unkindness, because they "owe" him no "subscription." Brought to his utmost, Lear remembers the material power he used to wield, rather than any other aspect of his kingship. This is a revelation, rather than a repetition; his earlier desire to maintain the trappings of kingship was an avoidance of Halpern's observation that Lear's kingship was nothing more than the power that accrued to him from owning the kingdom; this new experience on the heath seems to at least tacitly acknowledge that fact, and this realization is only one of several that Lear undergoes on the heath.

A porous boundary between the external world and the psychological world of the characters is a hallmark of many Shakespeare plays; in *Macbeth,* as the previous chapter analyzed, the increasingly disordered mental state of Macbeth and Lady Macbeth mirrors an increasingly disordered Scotland. There is a rhyming use of landscapes in *As You Like It* and *A*

Midsummer Night's Dream, where forests become fairy-tale spaces that create and are created by characters' distance from courtly society. At this point in *Lear*, the psychological landscape of the king and the physical landscape of the play come closer than at any other point: Cornwall's comment that "'twill be a storm" (2.4.283), which could be referring to either the King's reaction or to the weather outside, brings this proximity to the fore. It also marks what is potentially the point of highest alienation for Lear: two of his daughters have abandoned him, and Cordelia has not yet returned with the French army. Kent and Edgar are both in disguise, as Gaius and Poor Tom, and no path forward has presented itself.[22] Lear is at this moment in the company of outcasts, and becomes one himself. Lear's raging on the heath – in particular, his command to "all-shaking thunder" that it "strike flat the thick rotundity o'th'world, / Crack nature's moulds, all germens spill at once" seems to request only that which has already occurred (3.2.5-8).

This extremity of the skies, however, necessarily reorients Lear and the other characters to the available affordances of their situation. This reorientation reveals that even after the thick rotundity has been struck flat and all germens have been spilled, there *still* exist affordative and volitional possibilities. In this, there is some resistance of the world to Lear's logic, a resistance that offers him some degree of salvation. Kent begins this long process of reorientation when he surveys the heath and remarks:

> Gracious my lord, hard by here is a hovel,
> Some friendship will it lend you 'gainst the tempest.
> Repose you there while I to this hard house –
> More harder than is the stones whereof 'tis raised,
> Which even but now, demanding after you,
> Denied me to come in – return and force
> Their scanted courtesy (3.2.60-67)

[22] On Poor Tom, see Simon Palfrey's *Poor Tom: Living "King Lear"*

Lear's response to this is to look at the fool and ask, "How dost, my boy? Art cold? / I am cold myself. Where is this straw, my fellow? / The art of our necessities is strange / And can make vile things precious" (3.2.68-71).

This passage highlights what might be called unexpected and asymmetrical affordances. The "hard house" should afford shelter from the storm, but because it is too hard – "harder than the stones whereof 'tis raised" – it does the opposite, and traps Lear on the heath while affording that shelter (and control) to those inside, namely Cornwall, Regan, and Goneril. The hovel – which Lear refers to as "straw" – would normally not be part of the perceptual landscape of a King (or likely even a duke) but now becomes an essential part of the landscape.

Kent hints at the strange reversal that he and Lear experience in his description of the castle and the hovel when he tells Lear "hard by here is a hovel, / Some friendship will it lend you 'gainst the tempest / Repose you there while I to this hard house -- / More harder than is the stones whereof 'tis raised" (3.3.61-64). The repeated use of the word "hard" both in describing the hovel and the house invokes the affordance of shelter – hard architecture offers better shelter and is more often associated with shelter than soft structures (such as tent cities, temporary encampments, etc.) or structures made of soft materials (as the story of the three little pigs so expertly illustrates) – but the normal use of "hard" has been undermined in two separate ways.

First, the hovel is described as "hard" not in the structural or material sense, but in the spatial sense. Its hardness – its ability to afford shelter – is primarily a function of the need of the moment and its nearness, not of its material construction. The hovel's suitability is the result of a novel intersection of circumstance, need, and spatial considerations that is taking place on the plane of the heath. Lear further emphasizes this reversal by referring to it as "straw" several lines later, a sardonic expansion of Kent's description. Likewise, Kent's use of the word "hard" to

describe Gloucester's castle highlights its failure to afford shelter by foregrounding what it should but does not provide. It is not only hard in a physical sense but in an emotional or moral sense. It is harder than hard, as hard as hearts, a hardness which exceeds the parameters of affording succor in the storm.

Lear's realization of his changing relationship to the world around him is expressed in one of the most beautifully dense lines in the play, which follows shortly after Kent directs him toward the hovel. When Lear says "the art of our necessities is strange" in response to Kent's suggestion, the former king is making a number of separate but related claims. First, he is pointing out the complicated and constructed relationship between humans and the world of affordative structures. What the world around us affords us is not a simple or natural relationship – it is often the product of "art" in the sense of artifice. As Gibson points out, the reason that we are so invested in changing the world around us – by building houses, creating roads, planting crops – the reason "man [changes] the shapes and substances of his environment" is to "change what it affords him" (130). Many human endeavors can be understood in terms of reducing the contingency involved in exploiting affordances by means of construction – or in terms of increasing the number of intersections that give rise to desirable affordances and the reliability with which they do so. Mankind builds, according to Gibson, in order to "[make] more available what benefits him and less pressing what injures him" (130). Houses, especially hard ones, are typically built to provide fail-proof and ready protection against the elements. The constructed nature of many affordance-bearers becomes most evident when the contingency seeps back through – that is, when the affording objects somehow fail at providing what they are supposed to, as when Gloucester's castle fails Lear.

Lear's two lines contain a number of different claims about the process he is undergoing. First, he acknowledges not only the unruly contingency of accessing affordances – the strange art of it – but that it is foreign to him and his mode of understanding the world. The assertion that it "makes vile things precious" is a sort of transmutation that would be impossible under the logical regime of the first act and the love test: the idea of value being relative to a subject position is unintelligible from the viewpoint of the surveyor, where every object is visible and equidistant, and the subject is nonexistent.

Second, Lear is pointing out that this relationship involves skill both on a practical and on an aesthetic level, partially participating in the discourse of design. While "art" in the sense of "fine art" would not have been available to Shakespeare – the OED lists its first use as being in 1668 – it can refer to "skill in an activity regarded as governed by aesthetic as well as organizational principles." As Maier, Fadel, and Battisto point out in their discussion of architectural design and affordances, "the impetus for any design project can be understood in terms of creating and changing affordances … *to create artifacts that can be used and that have meaning*" where meaning is an aesthetic quality of the architecture (404). Design exists at the intersection between aesthetics and organization as a result of the "secret affinity between beauty and function," and it is this covert connection that Lear is teasing out when he uses the richly layered word "art" to describe his understanding of the human relationship to affordances (Lupton 165). It also helps to explain some of his reluctance to enter the hovel, even though it is the only shelter within reach. It may afford shelter, but it is (at least in terms of its physical affordances) far less appealing than a castle on many levels. This is the same objection that Lear raised in respect to Regan and Goneril's suggestion that Lear needed no train. His

counterargument was partially an aesthetic one, and his point that "to go warm" is not necessarily "gorgeous" has been transposed onto the heath (2.4.264).

The strangeness of this art is also worth glossing. The OED lists two senses of strange that are pertinent to Lear's utterance. The first is "Unknown, unfamiliar; not known, met with, or experienced before." The second is "unfamiliar, abnormal, or exceptional to a degree that excites wonder or astonishment; difficult to take in or account for; queer, surprising, unaccountable." Shakespeare, it is worth noting, is cited as an example for both senses. As a former king who has recently been stripped of his retinue and has a difficult time distinguishing between need and desire, the art of necessity is in a very real way unknown and unfamiliar to Lear. He is used to having a simple and direct relationship to what his environment affords him (it is abnormal for him to even embark on affordative considerations in a more than cursory manner), and he is used to being able to supply any unmet needs or wants with ease. He is, in short, accustomed to a certain degree of luxury in his daily life. He can no longer provide for himself in the same way now that he has given up his kingdom, and he is unable to supply even his barest needs on the heath, which renders the contrast between his current and former situations overwhelmingly evident to him. He is no longer debating with Regan about whether or not to "allow … nature more than nature needs," but must confront bare need head on while bareheaded (2.4.262).

Because of his encounter with the nontrivial nature of locating the correct affordances, Lear is also coming face-to-face with the abnormal, exceptional, and surprising aspects of the provisions of the environment. In times of dire need, even a hovel – which would normally fly under the radar of a king's consideration of what can provide shelter – forcibly enters his affordative landscape. It is surprising to Lear how fundamentally contingent the human ability to

fulfill needs is, how quickly this contingency can reveal itself, and how provisional – and exceptional – is our ability to alter our environment so that its affordative structure is changed.

Lear's experiences on the heath culminate in another critical moment of realization after he is brought to the hard hovel of straw. In the wake of a discussion with Edgar, who has disguised himself as a madman, Lear says of Edgar, "thou art the thing itself. Unaccommodated man is no more but such a poor, bare, forked animal as thou art" (3.4.99-101). After this, he begins to undress, exhorting "Off, off, you lendings!" (3.4.101). Lear has gone from passively remarking on the strange art of necessity to undertaking a project that he believes will allow him to re-situate himself in this brave new world of problematic and difficult affordances.

At this moment, Lear is also experiencing a new type of resistance, what Jane Bennett would call thing power: the "capacity of things to move, threaten, inspire, and animate the more obviously animated things called humans" (358). This is one portion of the world that has not and cannot be fully reduced by the logic of the surveyor – especially when the surveyor is trapped outside during a storm. The very environment of the heath is as resistant to Lear's needs as his daughters are. Like in *Macbeth*, the disorder in Lear's mental and social world is mirrored in the landscape. Unlike in *Macbeth*, Lear ultimately achieves a new orientation to affordative possibilities in the heath. Lear's affordative reorientation is similar to Bennett's observation of a set of things that "shimmied back and forth between trash and thing, between stuff to ignore … and stuff that commands attention" (350). Lear, used to commanding, has had his attention commanded both by the stuff in his environment and the networks into which he is embedded, and the two – particularly the daughters and the weather – are frequently understood in terms of each other.

While Lear's need to understand everything at the end of the play as a repetition of his own relationship to his daughters is frequently read as a sign of his descent into madness, it also evinces a certain conceptual consistency. The economic framework Lear has used to approach his relationships requires that everything be fungible and all quantities be reducible to a certain common currency. If the number of knights in a train can be equated to a certain amount of love, why would Lear's relationship to the elements not be intelligible in terms of his relationship to his daughters? The flatness of the heath takes on an additional valence in this light: it is not only a result of the disintegration of Lear's access to volitional possibility but a figure – contra, for example, the cliffs of Dover – of economic value divorced from other aspects of the taskscapes that make production or exchange of value possible. This is the result of the disintegration – the pulling apart or de-integrating – the surveyor's logic has inflicted on the world of *Lear.* In a world where everything is exchangeable, there is infinite possibility for motion or exchange but no – or very few – differences between objects, places, and environments. It is a world without the warp and weft of human experience, or the land-as-taskscape. It is a barren heath where one has unlimited freedom and zero agency.

Lear's statement that, in response to his disorientation, his "wits begin to turn" (3.3.67) is not only a recognition of his impending madness but a statement of realization that his new situation has reoriented him in a phenomenological sense: he is now forced to recognize "different ways of registering the proximity of objects and others" (Ahmed 4). Forced into a situation with virtually no available affordances, Lear has to undergo a reorientation in order to make action possible. Lear himself articulates this realization a few lines later, pointing out that "the art of our necessities is strange / And can make vile things precious" (3.2.70-71).

Lear's reaction to Edgar's uncovered body is partially a reaction to this realization. When he proclaims, "Thou owest the worm no silk, the beast no hide, the sheep no wool, the cat no perfume" (3.4.97-98), he is realizing the thickness of the taskscape – how many relationships are necessary in order to make man's life somewhat less cheap than beasts – and the degree to which humans depend on these sorts of relationships. The thick resonance of the taskscape tends to show up in *King Lear* at moments of crisis – the imagined scene at the Cliffs of Dover, which will be discussed in the following section, is another such moment. Lear's final exclamation before stripping down – that "unaccommodated man is no more but such a poor, bare, forked animal as thou art" – continues this realization but casts it in even more explicitly social terms (3.4.100-101). The word "accommodation" encompasses a wide range of meanings in Early Modern English, including a fitting-together of the sort Cordelia mentions in the first act. Lear is lamenting not only the immediate exigencies of his physical existence but also the lack of a social web into which he fits. He is also echoing the language of Cordelia during the love test, who offers to lover her father as is "right fit" (1.1.95). This is the end of a series of orientational changes that fundamentally alters how Lear understands his environment and his relationship to it. It is at this moment that the hard house on the heath enters his affordative landscape, and at this moment that new possibilities for relating to his environment and those around him emerge.

Kent offers something of a counter-example to Lear's inflexibility in the face of unanticipated affordative structures, a flexibility which is echoed by other characters in the late romances following *Lear*. Unlike Lear, Kent does not rage when he is banished, but disguises himself so that he can "serve where [he] dost stand condemned" and find his way back into the king's good graces and, by doing so, remains an active participant in the world of the play (1.4.5). Similarly, when Kent is put in the stocks at Gloucester's castle, he is able to take

advantage of the meager affordances that being thus confined offers, saying that “some time I shall sleep out, the rest I’ll whistle / A good man’s fortune may grow out at heels” (2.2.148-49). His ability to negotiate even unintended or unexpected affordances, an inventiveness that allows him to exploit rather than be baffled by them, is one of the primary reasons that he is intact and alive until the end of the play. Kent is consistently able to interact with his environment skillfully in a way that Lear never quite learns to do. Kent’s ability to work with unanticipated affordances is similar to characters from other plays, such as Marina and Imogen: the former is able to create a provisional community by the sea after escaping from prostitution, and the latter is able to reinvigorate a stagnant household of three after stumbling upon them while almost dead from hunger.

If Lear were more like Kent (or more like Imogen or Marina), and if he had he been able to perceive the positive aspects of the unexpected situation he had been thrown into, he might have had a very different interaction with the hovel. Instead of allowing a risky and provisional space to be created, instead of telling stories over a fire with Gloucester and Kent (and perhaps Edgar) and creating new affordative possibilities, Lear puts his absent daughters on trial (using the affordances available to him – among them a joint stool), asking at one point “Is there any cause in nature that makes these hard hearts?” after suggesting that Regan be “anatomized” (3.6.75-77). At one point Lear interpellates a joint stool as one of his daughters, which allows us to add put-on-trial-ability to the “multiple affordances" offered by the stool, and a choice of object which resonates with Lear’s new situation, as “chairs were … reserved for the patriarch” and a select few others in Renaissance homes in contrast to the stool, which “abounded, thanks to their cheaper construction, lighter weight, and multiple affordances” (Lupton, “Making Room, Affording Hospitality: Environments of Entertainment in Romeo and Juliet” 154).

Lear is driven mad in part by his insistence on focusing on the affordances he no longer has access to, and his reference to the hard hearts of his daughters is indicative of this while simultaneously achieving a partial reorientation that opens him up to some new possibilities on the landscape of affordances. On the heath, Kent related hardness to affordances that should have been but were not. Kent was also able, however, to turn the situation on its head and find new affordances borne out of unexpected circumstances. Lear, because of his failed attempt to become "the thing itself" and the concomitant failure to come to terms with thing-power and unintended affordances, can only see this hardness as a lack – and the thing-ness of hardness as a negative aspect. The heath and Lear's encounter with resistant matter have only partially reoriented him – he is still unable to come to terms with his new outcast state, and spends the rest of the third act unable to understand the structure, cause, or avenues of escape from his present condition, locked into his old world and not able to fully carry through his project of recalibrating his relationship to the affordative structure of the world around him.

The Cliffs of Dover

Returning to Gloucester's imagined trip to the Cliffs of Dover, we can now analyze how it presents us with a rare moment when a character is able to imagine the world as something other than it is, and read it as a strong counterpoint to Lear's experiences on the heath. In *Macbeth,* there is a constant effort by a group of characters to restore the kingdom, a goal which is eventually realized. In *Lear,* however, any similar attempt seems impossible: the only motion the play admits of is haphazard, stochastic Brownian motion, and the only direction it knows is toward entropy. The characters present on stage are actively conspiring against the kingdom and against each other, and the attempt by France to save Lear is more of a personal effort than a

political one. Edgar's brief time with Gloucester at Dover, however, affords a look into an alternate possibility.

After being blinded by Cornwall, Gloucester asks his disguised son to lead him to a precipice so the former can leap to his death. After Gloucester's comments that he does not hear the sea or feel the ground rising beneath his feet, Edgar attempts to convince Gloucester that he is overlooking a vast drop by describing the scene as follows:

> Come on, sir; here's the place: stand still. How fearful
> And dizzy 'tis, to cast one's eyes so low!
> The crows and choughs that wing the midway air
> Show scarce so gross as beetles: half way down
> Hangs one that gathers samphire, dreadful trade!
> Methinks he seems no bigger than his head:
> The fishermen, that walk upon the beach,
> Appear like mice; and yond tall anchoring bark,
> Diminish'd to her cock; her cock, a buoy
> Almost too small for sight: the murmuring surge,
> That on the unnumber'd idle pebbles chafes,
> Cannot be heard so high. I'll look no more;
> Lest my brain turn, and the deficient sight
> Topple down headlong (4.6.12-24)

Andrew Bozio describes Edgar's verbal illustration as "essentially an ekphrasis of a painting that exists only in his imagination," and that in doing so he "offers his narration as a means of establishing the eye's hegemony over the other senses" (270). Bozio also asks, "do we see the cliff, or the stage itself? Obviously, uneasily, the answer is both. We reside within the paradox of "see[ing] it feelingly," and our position within the synesthetic assemblage that constitutes phenomenology largely determines our sense of where we are" (271).

It is true that this moment somewhat collapses the distinction between the world of the play and the stage on which it is being performed – somewhat like the final moment of *Epicene* does. This collapse of the distinction between play-world and stage also enhances the effect of seeing another possible outcome – and another possible play – through Edgar's imagined scene. In the same way that *Othello* is a version of *Much Ado About Nothing* in which things end

poorly, the scene at the cliffs of dover seems to come not merely from Edgar's imagination but from another dramatic world entirely. James Kearney analyzes Edgar's description – and the one that follows of Gloucester's "fall" with a demon looking down on him – as a "strange deception" that "forces [Edgar's] father to reconsider what he thinks he knows about his erstwhile guide, the 'poor unfortunate beggar'" (461). Both of these readings focus on the effect of the description – to establish narrative authority and to challenge or guide Gloucester in some way – and consider the description an act of deception or mastery.

What these accounts of Gloucester's experience fail to take into account is the content of Edgar's description; it is not merely a view from above, but a scene full of activity that includes "crows and coughs that wing the midway air," "one that gathers samphire," and "fishermen … and yond tall anchoring bark, / Diminsh'd to her cock." It is a passage in which people, animals, and vessels are no sooner seen than transformed; birds become beetles, a samphire gatherer becomes no larger than his head; fishermen seem like mice, and a boat becomes a cock which then becomes a buoy.

Ingold's idea of a taskscape, which is intimately connected to the temporality of the landscape, provides a productive entry point for a consideration of this scene. Ingold imagines the landscape from what he calls a "dwelling perspective," where it "is constituted as an enduring record of – and testimony to – the lives and works of past generations" (152). In Edgar's imagined ekphrasis, the porousness of the individual objects in the scene connects them to each other, and to the history of work that has provided the framework for their existence. The transformations that occur in Edgar's description make apparent that each individual object is but a "component," each of which "enfolds within its essence the totality of its relations with each and every other" (Ingold 154). Edgar's "murmuring surge, / That on the unnumber'd idle pebbles

chafes" provides us with an image of connection and enfolding relationships. Much like the samphire, in Edgar's description, "meanings … are *gathered*" rather than simply "attached" in the ekphrastic taskscape (Ingold 155). The overall activity of the scene, from the choughs to the beetles to the samphire gatherers, is an Ingoldian taskscape, an "entire ensemble of tasks, in their mutual interlocking" (158) that produces and is produced by a sustainable way of life.

The divide that remains, and the gap that Gloucester tries and fails to bridge continues to exist due to the fact that both he and Edgar remain mired in the world created by Lear – the world of land rather than landscape, where "you can ask … as of weight, how much there is, but not what it is like" (154). In creating this ekphrasis, Edgar seals off all possibility of ever entering such a world. Unlike Lear, his words do not have the power to create the landscapes he describes. Neither Edgar nor Gloucester can hope to participate in this taskscape. On a literal level this is because it does not exist, except as an image conjured up by Edgar's imagination. However, even if this were not the case, Gloucester would be separated from this activity by a huge height, and crossing this gulf – jumping off the cliffs of Dover – would cost him his life. Edgar is unable to participate because of his outcast state – by dressing himself and acting as a beggar, he has been removed from the taskscapes of his previous social world. Another way of putting this is that Edgar and Gloucester cannot participate in the taskscape because "the temporality of the taskscape is essentially social" and the social fabric of the world of *Lear* has, by this point in the play, been damaged beyond supporting this sort of activity (Ingold 159). The "harsh, minimalist, delocalized landscape" (Traub 64) of *Lear* is a sort of opposite to the landscape which is generated by and sustains an Ingoldian taskscape.

Social relationships in *Lear* break down in tandem with the taskscape because of the social nature of the taskscape: as Ingold points out, "people, in the performance of their tasks,

also attend to one another ... by watching, listening, perhaps even touching, we continually feel each other's presence in the social environment, at every moment adjusting our movements in response to this ongoing perceptual monitoring" (160). Conversely, once this social relatedness is lost – once we can no longer see, hear, and touch those around us (or once we become willfully blind to the presence and activity of others) the taskscape will necessarily fail. Once the taskscape fails, the landscape – which "as a whole must be understood as the taskscape in its embodied form" – is at risk of failing, too (Ingold 162).

The objects presented in the scene are described in action, most of which is purpose-directed: the crows and choughs are wheeling through the air, the samphire gatherer is gathering, and the fishermen are walking. Even the bark has been reduced to its most mobile part, its cock; and the transformation of the latter into a navigational aid maintains its connection to the larger networks of travel and trade that the shore and the boats are connected to. Likewise, the fishermen and gatherers remain connected to economic activity and to the sustenance of both individual bodies through nutrition and the body economic through "dreadful trade."

The type of motion and activity presented in Edgar's imagination is in sharp contrast to Lear's motion after he has surrendered his land and his kingship to his two eldest daughters. Before he is locked out of Gloucester's castle, Lear plans to ping-pong back and forth between Regan and Goneril, a type of motion that stands in stark contrast to the scene on the beach. After he is locked out, he wanders aimlessly on the heath, again in contrast to activity that ties in with and reproduces larger social systems. Edgar's scene eschews even the idea of flat, continuous land itself: motion is seen only in the context of air and water, and land exists only as a narrow border between the two. Edgar's imagined scene produces almost the exact opposite experience that Lear will have in the scene on the heath that follows immediately after.

It is a scene of connection, motion, and action, but at an extreme remove. Edgar has, by this point, been tricked by his brother, disowned by his father, and has spent much of the play wandering the countryside disguised as a madman. The scene Edgar describes is equal parts painting and memory, made up of not only an imagined ocean scene but also of the sort of productive activity and integration with rhythms of life that disintegrate throughout the action of the play. The ocean of Edgar's imagination stands in stark contrast to the heath that forms the hard heart of the play. Here everything can be something else, and although activity is diminished by distance, it is continuous and purposeful. Fish are caught, samphire is gathered to be eaten, and although the "murmuring surge" chafes on pebbles, it sustains rather than overwhelms the anchoring bark.

It is curious that the sense of sight is so unreliable in a scene that is ostensibly – again, according to Bozio – supposed to establish its hegemony. We start out not with an understanding of sight as powerful but with a warning about its peculiar power to disorient; sight is "fearful" and "dizzy." The rapid changes in description similarly confound sight's power as a sense; instead of separating and defining, we get all things thrown together – birds, men, mice, boats, and the murmuring surge. Rather than establishing any sort of hegemony, the passage tests the limits of sight, a sense which fails almost completely to account for the "unnumber'd idle pebbles," which must instead be known by the "murmuring surge" (which, while it cannot be "heard so high," forms the substrate and condition of possibility for all of the individual elements in the scene.) Like much of the rest of the play, Edgar is investigating here a mode of failure of sight. Sight in *Lear* is more than just a visual sense, however; it is closer to an epistemological condition in which one can correctly apprehend not only physical but social relationships, and failures of sight have inevitably grave consequences in the world of *Lear*.

The final three lines of the imagined ekphrasis – "I'll look no more; / Lest my brain turn, and the deficient sight / Topple down headlong" do much more work than simply rounding out a visual description. Any mention of turning brains in this play necessarily calls to mind Lear's gradual turn towards madness, but more than that, the description of the entire scene below echoes the "shadowy forests and …champaigns riched, / With plenteous rivers and wide-skirted meads" that Lear bestows on Goneril in the first scene (1.1.62-64). Lear's deficient sight – his inability to distinguish flattery from love, his inability to understand the difference between lived space and the Cartesian plane, that "fiction of geometers" – leads to his headlong topple through the play. Here, Edgar is worried about falling backwards into a memory of his previous self, the name he has abandoned in order to fit himself to the world the characters are forced to live in. Not only for Gloucester but also for Edgar do Kott's remarks on the cliff hold true: "It is the abyss, waiting all the time. The abyss, into which one can jump, is everywhere" (146).

Edgar's imagined scene stands in stark contrast to almost the entire rest of the play. Unlike *Macbeth*, which is populated with metaphorical and actual animals and whose landscape is unusually variegated and active, *Lear* is a play whose already spare landscape quietly and urgently dissolves over the course of the play, leaving us with little more than Nahum Tate's "desert heath."[23] There is no work in Lear; no shard-born beetles, no martlets, no ocean and no pool of blood in which to step too far. The animals that do appear – dogs, serpents, a cat – appear as figures of negation or have already dissolved, leaving only teeth, hard hearts, and human negative exceptionalism.

The section of *Lear* between the king's initial blindness to both his youngest daughter's love and the difference between lived and mapped space, and Edgar's ekphrasis shows us what

[23] Nicholas Rowe's 1709 edition is the first in which the setting was described as a "heath."

happens when Lear's misperception becomes enacted as a phenomenal landscape. Edgar's imagined scene cuts against this – but, lacking the power of the sovereign, he is unable to effectively invoke or command or speak it into being. In fact, once he is past the image, it becomes the work of "some fiend" with "two full moons" for eyes, "a thousand noses," and "horns whelked and waved like the enragèd sea" (4.6.69-71). Edgar's demon is not only a story he tells to Gloucester but also one he tells to himself – what other sort of creature could be so cruel as to imagine such a landscape in the face of what is to come? The taskscape is "the homeland" of Edgar's thoughts, but one he is unlikely to ever be able to return to – the world of *Lear* has decayed beyond any hope of immediate restoration (Ingold 171).

After Gloucester leaps and falls down on the stage, Edgar describes his imagined descent down the cliffs of dover:

> Hadst thou been aught but goss'mer, feathers, air,
> So many fathom down precipitating,
> Thou'dst shivered like an egg. But thou dost breathe,
> Hast heavy substance, bleed'st not, speak'st, art sound.
> Ten masts at each make not the altitude
> Which thou has perpendicularly fell.
> Thy life's a miracle. Speak yet again. (4.6.51-57)

Noteworthy in this description is the oppositions Edgar sets up in describing Gloucester: on the one hand, he is "goss'mer, feathers, air" and on the other, he "dost breathe, hast heavy substance, bleed'st not, speak'st, [is] sound." Edgar is removing Gloucester's substance and reducing him to air itself, but at the same time reaffirming the latter's "heavy substance." By trying to leap into it, Gloucester has broken the spell of Edgar's imagined, ordered world, and has landed instead in one where nature's germens tumble all together. He is at once gossamer and heavy substance, air and sound, feathers and an egg. His return to the flat ground of the play renders his previous guide an unintelligible creature with "two full moons" for eyes, "a thousand noses" and "Horns whelked and waved like the enragèd sea." In the space of *King Lear*, trying to enter the world

that Edgar has created causes a confused series of contradictions: a man of heavy substance who is gossamer, a demon with a thousand noses, and a sharp divide between Gloucester's lived experience of flat terrain and almost no fall at all with Edgar's otherworldly descriptions. Shortly after Gloucester decides to stay in the world of *Lear* after all, the decision is brought home by the entrance of the king who is now – according to the stage direction – "mad."

At the end of the play, it is possible that Lear does achieve something resembling a more full affordative reorientation. His last speech contains a reevaluation of the relationship between humans and animals. He asks, "why should a dog, a horse, a rat have life, / And thou no breath at all" (5.3.306-307), reorienting his earlier statements implying that man is less than animal. Here we see a new sort of parity emerging, one that places man within the animal world by virtue of one of their shared attributes – the possession of breath. If Lear's "need, or his interpretation of his need, becomes [Coredlia's] sentence," it also becomes his final attempt at an affordative reorientation (Cavell 277). Although he has already decided that she is dead in emphatically repeated terms, that she will "come no more, / Never, never, never, never, never" (5.3.307-308), he sees the feather stir and believes – or *chooses* to believe – that she may be alive. This last action is the grasping of the unintended affordance created by the confluence of a light feather and an errant current of air. Brought to his ultimate limit, Lear has – perhaps – achieved a reorientation. And Kent, brought to his ultimate limit, is finally unable to perceive any affordances after Lear's death – insisting that he "must not say no" to following Lear in death (5.3.324).

Unlike in *Macbeth*, however, there is no forest that marches; there is no man not born of woman who delivers a final deadly blow to the force corrupting the landscape of affordances. In *Lear* we are left only with a dead king who has – possibly – achieved some measure of peace

with the world his own logic created. *Lear* tests the limits of our ability to recover from large-scale affordative dissolutions that have no single external cause, or whose cause is ourselves; one of the reasons *Lear* has been so unsatisfying and fascinating to critics is because it refuses to provide answers to these questions. The play refuses the normal interpretive and emotional affordances of tragedy. Instead of a procession, instead of a restoration of what has been lost, instead of catharsis, we are left with a cryptic admonition. The reader or theatregoer can do no more than what Edgar suggests: "The weight of this sad time we must obey, / Speak what we feel, not what we ought to say" (5.3.325-26).

CHAPTER 3 – THIS INSUBSTANTIAL PAGEANT: CREATING A NEW ENCOUNTER WITH *KING LEAR*

> And then I stole all courtesy from heaven,
> And dressed myself in such humility
> That I did pluck allegiance from men's hearts
> Loud shouts and salutations from their mouths,
> Even in the presence of the crowned King.
> *1 Henry IV*, 3.2.50-54

The first page of Jeffrey Doty's 2010 article on popularity and the Early Modern public sphere begins with an anecdote about a playgoer who, at the end of the sixteenth century, went to a performance of *1 Henry IV*. The anonymous diarist found Henry's meditation on the relationship between royalty and popularity interesting enough to preserve, and transcribed the following version of the above lines by King Henry into his commonplace book:

> & then ~~you~~ he must steale Curtesy
> from Heavn, & dress hymself in
> sutch humillity, as he may pluck
> allegiance from men harts euen in
> the presence of ye Queene wch els
> opinion whc must & doth oft aid help
> one to a Crown will still keepe
> loyall to posession . . . (Doty 183)

The modifications – the replacement of "King" with "Queene" and the replacement of the "I" in the first line with "you" (which was crossed out) are a clear indicator, as Doty discusses, that the spectator is using the play to think through contemporary issues and "mining … Shakespeare's lines for insight into the workings of power" (185). This is an excellent example of the active, bidirectional relationship between the Renaissance theatre and those who visited it, and a good starting point for a discussion of the affordances of Renaissance drama. For a Renaissance playgoer, the material performed afforded spectation, certainly, but also engagement, discussion, enjoyment (in the case of a much more famous diarist, guilty enjoyment), reflection and, for this person and likely others, the play afforded useful and

possibly dangerous language, the lines copied down being "evidence that for some playgoers the theatre was a place to go for useful political language and information" (Doty 183).[24]

The particular location of these lines, too, helps us understand how they fit into the Renaissance ecology of media and knowledge: the anonymous playgoer has "transformed the language from Shakespeare's play into material for a commonplace book," a practice that was "so pervasive that many plays were printed with commonplace markers already in place, directing their readers to the play's wise, useful parts" (Doty 184). The language has been removed from its original context and incorporated into the generic frame of the commonplace book, turning it from a dramatic moment to a re-usable piece of recontextualized knowledge. The playgoer found some piece of Shakespeare's language useful and made the decision to separate that piece from the performance and from the larger context and carry it with himself out of the theatre and into his own reflections on life.

The specific lines copied down are important to Doty's argument about the larger role of popularity and the public sphere in Early Modern England; what I am interested in from these lines is the practice of *using* Shakespearean language – some might even say thinking with Shakespeare – outside of the context of the plays, and the suggestion that doing so is not a presentist imposition but is as old as the performance of Shakespeare itself. Furthermore, this use of Shakespeare has, since the Renaissance, involved generic transformation and the concomitant transformation of affordances. Commonplace books, as Ann Moss describes, were "a memory

[24] When thinking about The Renaissance and transhistoricism, I am often struck by how recognizable many of the experiences described are. Take for example the entry from Pepys' Diary on Tue, 31 Dec 1661: "I have newly taken a solemn oath about abstaining from plays and wine, which I am resolved to keep according to the letter of the oath which I keep by me." And the entry from just over one month later, on Feb 5, 1662: "At noon Sir W. Pen dined with me, and after dinner he and I and my wife to the Theatre, and went in, but being very early we went out again to the next door, and drank some Rhenish wine and sugar, and so to the House again, and there saw 'Rule a Wife and have a Wife' very well done." Three hundred and fifty years later, we are still making and failing to keep New Year's resolutions in much the same way.

store of quotations, which could be activated to verbalize present experience in the language of familiar moral paradigms with reference to a cultural history shared by writer and reader," and they were used to provide material to "back up your argument or point of view" (vi). The lines were copied down, then, not just because they were interesting but because the playgoer thought they *afforded* something – a sharpened understanding of the world the playgoer was embedded in, possible ammunition for an argument to come, or a bit of externally supplied *esprit d'escalier*. What is important here is not just that something was done with the language, but that the act of moving the quotation out of the theatre and into the commonplace book opened up new affordances for that particular bit of play – and did it in a way that is necessarily bound to Renaissance media and the Renaissance ecology of knowledge.

Returning to Gibson's initial definition of affordances, covered at length in the introduction, can help us lay the groundwork for thinking through the landscape of affordances for twenty-first century adaptations of Shakespeare. "The *affordances* of the environment," Gibson writes, "are what it *offers* to the animal, what it *provides* or *furnishes*, either for good or for ill" (127). Affordances are also necessarily ecological: a "niche" corresponds to "a set of affordances" and is "a setting of environmental features that are suitable for an animal, into which it fits metaphorically" (128-29). We can use this same definition and replace "animal" with "play" or "artistic work." Asking what we are to make of encounters with Shakespeare in the twenty-first century – and what we are to make of the relationship between Shakespeare and contemporary adaptations and media – is to ask two fundamentally ecological questions: what new representations and modifications does our current environment afford Shakespeare, and what affordances are created by the unexpected resonances between Shakespearean language and modern experiences and media – that is, what can we do for Shakespeare, now, and what can his

works do for us? What new niches exist for Shakespearean adaptations, and what do these new niches provide and furnish?

In short, Shakespeare's language – and the language of Renaissance Drama – has always offered multiple affordances, at multiple levels. It does not only afford meaning, engagement, and interpretation as a whole, it bears these affordances in its parts, and encountering Shakespeare in parts has a history as long as the plays themselves.[25] Even Renaissance actors were used to encountering their parts separately, on prompt sheets, rather than embedded into the entire play, as has become the almost universal standard for encountering Shakespeare in modern American high school and university classrooms. Encountering Shakespeare can mean encountering only portions of Shakespearean plays, and to design and encourage such partial encounters is as old as the plays themselves, and presents a useful tool for encouraging people to find something that resonates with them – something interesting, something useful, something perplexing – in Shakespeare's language.

Returning to our anonymous diarist, however he planned on using the language, it is clear that he took from Shakespeare what was most interesting to him, and refracted the language of the play through his own experience, finding a new set of affordances and possibly a new niche. This relationship to Shakespearean performance and the language of the plays – one in which it is not an experience to be passively received but a dynamic encounter with potentially enlightening or useful insight – is where I would like to start thinking about the relationship between Shakespeare and modern media – specifically, video games. That relationship will form the core of this chapter. In order to think about what it means to bring Shakespeare to video games, I am interested in first building an understanding of what unique affordances video

[25] See, for example, Palfrey and Stern's *Shakespeare in Parts*.

games offer us, and then by looking at how existing video game adaptations of Shakespeare exploit both those affordances and the affordances specific to Shakespeare.

As such, this final chapter will grapple with how encountering Shakespeare is possible, desirable, and useful over four hundred years after the plays were initially written and performed. It will also – alongside an analysis of how video games do narrative and generic work – present a companion arcade game called *LearQuest. LearQuest* has been designed, built, and programmed as a part of this dissertation chapter, and is intended both as a component of the dissertation and as a practical companion piece to the theoretical considerations around the affordances of Shakespearean video games. *LearQuest* represents both a continuation of the tradition of Shakespearean arcade games and an attempt at creating a new way to encounter the language, environment, and matter of *King Lear,* and will function as a proving ground for many of the ideas around affordances developed in this dissertation.

Video Games and What They Do

The previous chapters of this dissertation – consisting of an examination of how phenomenological worlds are created and reformed – provide us with a framework that allows us to begin thinking about what new affordances video games enable. The possibility space for video games, as Ian Bogost describes it in his landmark work *How to Do Things with Videogames*, is a "complex, graduated space, in which many experiences could be touched by games" (151). Bogost's "possibility space" is another term for what I would call a "topography of affordances" and, in fact, Bogost spends the book analyzing some of the numerous affordances of video games: his chapters have titles like "Electioneering," "Branding," "Relaxation," and so on, each examining a different affordance that a particular video game

exploits. The approach of understanding games as *doing* something resonates with an affordative analysis: each chapter of Bogost's work presents one or a small set of games doing something.

Along those lines, one way of asking what video games, in general, do with Shakespeare – or how they let us think with Shakespeare – is to ask us what they afford. Games, much like theatre, afford direct engagement with a work: one is forced to encounter them on terms at least partially set by external actors, and – in the case of an arcade game (a case we will return to later) – in a setting outside of one's home. By "arcade game," I do not mean the genre (a simple game, usually based on action or fast-paced, challenging gameplay designed originally to walk the thin line between encouraging players to sink quarters in as fast as they are defeated and being so difficult it causes them to quit in frustration) but rather a game that is incorporated into a piece of physical equipment.[26] Books – including printed plays – afford quiet contemplation, discussion either with or without the artifact, and self-pacing. These affordances are critical to some endeavors – much literary analysis, for example – but preclude certain things. Theatre-going affords social interaction and a time-bound engagement with something *else*, something outside of the house and outside of the individual's control or ability to pace. The same is largely true of an arcade game – a game which is housed in something (usually called a "cabinet") and typically only available outside of the house. Video games are software; arcade games are closer to furniture.

These attributes are in contrast to other forms of media: the book is always there, on the shelf, waiting to be read; the TV series can be started or stopped at any time and re-watched as often as one likes. The play, however, will eventually end; the arcade will eventually close. Each of these genres puts the experience in conversation with other experiences the reader, player, or

[26] Classic examples of this genre include *Missile Command*, *Gauntlet*, *Mortal Kombat*, *Defender*, *Joust*, among numerous others.

audience member has had inside of that genre, as well; seeing a play lets people experience spectatorship in the context of other plays, and playing a video game lets people experience interactive Shakespeare in the context of other games they have played.

Rather than being a fundamentally different medium that is discontinuous with older forms, video games are "another medium woven into everyday life" (Bogost 7); they are one of many ways which we have of creating, accessing, and reflecting on meaning. Put another way, video games have a specific topography of affordances for making and encountering meaning, one shaped by their proximity not only to other media but also to the everyday lives of those who play them. And although Bogost is critical of the idea that "for serious game proponents, video games' ability to create worlds in which players take on roles constrained by rules offers excellent opportunities for new kinds of learning" (5), I will take seriously the idea that there are some things that can be done better – or simply *differently* – with video games – and, in discussing the existing Shakespearean video games and my own attempt to make one – I will specify some of these affordances.

Making games that relate directly to material from Shakespearean plays has been done before, in a variety of ways; many of these games are described in detail in Gina Bloom's article, "Video Game Shakespeare: Enskilling Audiences through Theatre-Making Games," and Laurie Osborne gives consideration to a number of games in "iShakespeare: Digital Art/Games, Intermediality, and the Future of Shakespearean Film." These are far from comprehensive treatments – new video games, and in all probability new Shakespearean video games are made

daily – but Bloom and Osborne provide a thorough enough sampling to understand the broad landscape of those games.[27]

Shakespearean video games generally take one of a few forms. Games of the first form engage the player in participating in some aspect of theatre management, such as *Hemmings' Play Company*, in which "players pretend to be Elizabethan theatre managers working to stage commercially viable plays in the face of numerous vagaries of performance" (Bloom 116). The second type of Shakespeare game is one in which players are placed into the plot or world of a Shakespeare play and asked to participate narratively, such as *Hamlet: A Murder Mystery*, in which "the player's alternative goal for Hamlet – to revenge the father and win the throne – represents a reworking of the plot that apparently offers both agency and immersion in the world of *Hamlet*" (Osborne 50). This is by far the most common type of Shakespeare game: one that focuses on the plot and characters of the plays. The third type of game engages players directly in the act of theatre-making, turning them not into managers or characters but into actors portraying parts.

One notable example of the third genre of game is *Play the Knave*, created by UC Davis's ModLab under the direction of English professor Gina Bloom. The core of *Play the Knave*'s gameplay consists of choosing a scene and requiring players to "perform their scene, karaoke-style, with the lines from Shakespeare's play appearing on the screen for them to recite" (Bloom et al 409). *Play the Knave* is described by Bloom as an "opportune project for demonstrating how theatre studies contributes to the digital humanities" and a game that "produces theatrical performances of Shakespeare while offering a lens through which to study

[27] A search for the word "Shakespeare" on popular independent game aggregator itch.io generates just shy of fifty results, and includes higher production value games such as Golden Glitch's *Elsinore*, and a number of games made by individual creators.

the relations between analog and digital technologies" (409). The game is interesting in that it does not produce a simulation of an experience but the experience itself – its players are also players on a stage – and in creating this experience, the game and its players certainly satisfy Bert States' description of theatre, that it "is really a language whose words consist to an unusual degree of things that *are* what they seem to be … in the theatre light is brightness pretending to be other brightness, a chair is a chair pretending to be another chair, and so on" (20).

Play the Knave does not produce straightforward theatrical productions, however. Aside from the absence of the typical trappings of theatre, it adds an additional mediating layer between the players and the performance. Does gamifying something like theatrical production add another layer on top of States' model of theatre? Are the participants in *Play the Knave* humans pretending to be humans pretending to be other humans? Is it possible to "pretend" to act? These questions bring to mind, for example, the reveal at the end of Ben Jonson's *Epicene*, where the titular character's female costume is removed, revealing the character to be a man; the actor, of course, has been a man the entire time, but this revelation codes him as a man pretending to be a man pretending to be a woman. Answering these questions is beyond the scope of this chapter, but a sensitivity to video games as such is necessary to begin thinking through them.

While much work has been done situating Shakespearean video games in relation to other modes of encountering Shakespeare – most frequently performance – relatively little work has been done situating Shakespearean video games in relation to other games in their genre. This work is critical, not only for the sake of a full analysis, but because it is likely that a player of a Shakespearean video game has more experience playing games than reading or watching Shakespeare. Someone who encounters a game such as *Hemmings' Play Company*, for example,

might experience resonance both with what they remember of Shakespeare from high school (and in some cases, college), but they will also experience resonance with other games in the construction and resource management genre: it might strike them as similar to *Roller Coaster Tycoon*, to *Sim City*, or to another game entirely.

Players who encounter *Play the Knave* at their university might find resonance with their previous experiences playing *Rock Band*, *Guitar Hero*, or *Dance Dance Revolution*, games which all incorporate the idea of performing according to a set musical script and which, by and large, also generate the activity they ostensibly simulate. Performing such an analysis would also shed light on how those genres of video games function. *Dance Dance Revolution*, for example, could be viewed as encouraging users to participate in theatre or theatre-like activity: they are not merely pretending to dance, they are dancing; *Rock Band* and *Guitar Hero* occupy a middle space between pretending and acting, using instruments that are closer to toys or practice instruments (*Rock Band*'s drum set comes closest to the real instrument). There is certainly much fruitful work to be done taking performance studies to the type of video game exemplified by *Play the Knave*. Players' previous experiences with video games will necessarily influence how players experience not only the game as a whole but the Shakespeare – conceptual or linguistic – they encounter while playing the game. More importantly, understanding the affordances of various video game genres is key to understanding what games of those genres can do with Shakespeare.

Ian Bogost offers an interesting consideration of *Guitar Hero*, pointing out that rhythm games frequently "offer something subtly different than playing a traditional instrument … videogames apply a distortion to musical performance, shedding new light on seemingly familiar songs, sounds, or rhythms" (32). When someone plays a game like *Guitar Hero*, they "see, feel,

and hear the musical patterns in a song that otherwise go unnoticed, blending into the overall flow and feel of its melody, harmonies, and rhythm" (33). In literary criticism, close reading is one tool for giving salience to patterns that might otherwise go unnoticed, but it is not the only way to make the stones stony. Video games – and, really, any performance or adaptation – has the ability to present the melody, harmonies, and rhythm of Shakespeare in new and unexpected ways, but in order to properly analyze this, it is important to understand the "video game" in Shakespearean video games.

Bloom and her co-authors do consider some of these aspects of *Play the Knave*, pointing out that "the motion-capture technology … tends to reward players who use large, histrionic gestures" and noting other differences enforced by the video game technology (410). Where their analysis falls short, however, is in drawing conclusions about how the game's generic elements participate in a larger conversation with other video games. Bloom's *Gaming the Stage* addresses the relationship between games and theatre for games that were popular in the Renaissance, such as backgammon, chess, and cards, but there is still much work to be done on the relationship between contemporary video games and modern adaptations of Shakespeare, an analysis which will be taken up in the subsequent section.

A fuller consideration of the ways in which Shakespearean video games participate in their respective genres will help us understand their limitations and affordances for engaging Shakespeare – it will help us understand how to do things with video games while simultaneously thinking with Shakespeare. I will begin my discussion of *LearQuest*, then, by talking about its relationship to other video games, and then consider how its construction as a video game relates to theatrical production; finally, I will deal with the game's relationship to both the text and performances of *King Lear*, highlighting what I believe to be the game's added

affordances for understanding and engaging with both the matter and the words of *King Lear*. While the game may not fulfill the full possibilities of electronic narrative analyzed in Janet Murray's *Hamlet on the Holodeck*, it is an attempt at "combining participation with immersion, agency with story" and allows the player to engage with some of the hard work of *King Lear* by "perceiving the patterns in a kaleidoscopic fictional world" (Murray 347).

Thinking with Video Games

While there are a number of mechanics unique to *LearQuest*, and while it takes its design from a number of sources, the core visual style is modeled on an older roleplaying game, *Ultima V*. Released in 1988, *Ultima V* was the fifth in the *Ultima* series, which followed the adventures of the "Avatar" – a mythical hero who, across a ten-plus game franchise, visited the world of Britannia to defeat various evils. Most games in the *Ultima* series are roleplaying games: the player takes on the role of the Avatar, occasionally with the assistance of a party of adventurers, and by exploring the world of the game, improving their own capabilities, and collecting equipment, the player is able to remedy the evil particular to that game according to a pre-scripted plot. In the mythology of the series, the Avatar is an embodiment of virtue who appears when the world is under threat. The Avatar's (and therefore the player's) relationship to virtue is built into the mechanics of the

Figure 1- Ultima V's character creation mechanics. Selecting choice (a) will grant the player +1 dexterity and +1 intelligence; selecting choice (b) will grant the player +1 strength and +1 intelligence.

series in various ways: in *Ultima V*, for example, character creation – and the assignment of attribute points – is framed as a series of moral decisions where the player must evaluate a moral conundrum and choose one virtue over another. In *Ultima V*, as in many roleplaying games, the character's core capabilities are represented as a series of "attributes:" These typically include strength, dexterity, and intelligence, and may include others such as wisdom, charisma, and constitution. This system of attributes was inherited from earlier tabletop roleplaying games, most notably from Gary Gygax and Dave Arneson's *Dungeons and Dragons*, the first edition of which was released in 1974. The Ultima series' predecessor game, *Akalabeth,* was released five years later, in 1979.

In a 2017 interview with VentureBeat, *Ultima*'s creator, Richard Gariott, described a feature of *Ultima V*'s precursor concerned with the Avatar's role as an embodiment of virtue. Beginning in *Ultima IV*, Garriott "introduced a moral philosophy" (which he referred to as "Karma") and would try "to seduce players into behaving badly and then would keep a karmic registry behind their behavior. Later, if they'd been lying, cheating, and stealing – which most of them had been – the characters they stole from, who they needed to help them, would say, 'I'd love to help a hero, but you're a dishonest thieving scumbag. I'm not helping you.'" The Karma system, which persisted through *Ultima VII*, was an evolution of the game in response to players' behavior in the previous game – *Ultima III*.

In the same interview, Garriott describes hearing from a specific player of *Ultima III*, who told him "I loved defeating the bad guy, but it was really fun killing all the NPCs in the game, killing Lord British, and stealing from all the shops," a behavior Garriott describes as "min/maxing the game system to become powerful and win." The world Garriott describes – where someone can kill without consequence in order to become more powerful – is a version of

Macbeth with no moral consequence: one is always not only thus but safely, and all one has to do to knit up the raveled sleeve of care is turn off the game. The concept of min-maxing (sometimes called min/maxing or minmaxing) – a common phrase in discussions of video game strategy – is an import from decision theory and gives insight into the way in which available affordances shape individual behavior within a particular game, and how player behavior might take advantage of unintentional affordances of the game, encouraging behaviors that are sometimes at odds with the goals of the authors.[28]

In *Ultima III*, the exploitation of what could be called unintended affordances exposes a tension between the intent of the game designer (you should battle monsters to gain wealth, and spend this wealth at shops) and what is allowed in the game world (you can simply steal from the shops). There is another tension at play here, though: between the game as a series of rules and goals, and the game as an imagined world modeled on a real world. Garriott's response to the players' exploitation of unintended affordances is telling: he describes the behavior as "lying, cheating, and stealing" and continues that he wanted to "force [the players] to be virtuous in order to succeed." Lying, cheating, and stealing all refer to violating our moral obligations to other humans – these concepts are nonsensical with respect to the game as a series of rules and goals, and are only intelligible if you imagine the game world as a model representation that has some relationship to real human activity.

Sebastian Deterding provides a compelling account of the phenomenon described by Richard Garriott. "Devise a game system of rules and goals," Deterding explains, "and some of your users will find a way to exploit any rule loophole and min-max their way through" (310). In

[28] For example, a popular post about achieving optimal results in the game *Stardew Valley* on social media site Reddit is titled "Stardew minmax - 315,000g~ first Spring [GLITCHLESS]." Min-maxing often carries a connotation of narrowly focusing on one part of a game in order to achieve a specific outcome as quickly as possible.

a single-player video game, this "is not so much a moral failing of individual users as a systemic issue endemic to the very process of adding rules and goals" (310). Gaining advantages by behaving in ways that are outside of the intended path of game progression may go against the aims of the designer, as in the case of *Ultima III*, but it is not in and of itself a moral issue. When considering games in relationship to what Deterding calls a "play community," however, the calculus changes somewhat: there is "a limit" to the "allowed and valued egocentrism," which is "bracketed in a larger care for fair play and the enjoyment of others" (310). That is, in the context of other humans that are affected by our in-game actions, aiming to succeed at a game *no matter what* does become a moral issue – and at times a moral failing – depending on the relationship of those actions to the standards of the community.

Once other people are involved, we have not only a relationship to the rules of the game, but a series of relationships and obligations to our co-mates in exile, and min-maxing – or a narrow focus on winning by exploiting marginal affordances of the game system – could run counter to those obligations. This sort of abrasive activity could involve rule-breaking, such as cheating, but it could also involve playing too aggressively, or taking the game too seriously. Garriott's inclusion of the possibility of simulated transgression – stealing from or killing shopkeepers – and a system of consequences for such actions in the *Ultima* games is an attempt to build in-game mechanics that simulate this tension.

Deterding's account helps us understand the love test in *King Lear* as not just an exchange or as a piece of theatre, but as a *game*: there are rules – Lear's instructions to "Tell me … which of you shall we say doth love us most, / Where nature doth with merit challenge?" (1.1.46-50), and order of play, and consequences for good and poor performances. Lear asks Cordelia, "what can you say to draw / A third more opulent than your sisters" (1.1.83-84) and, in

doing so, invites her to participate according to the moves of her sisters – explicitly instructing her to take the strategy that would be described by Garriott or Deterding as min-maxing: understand and exploit the rules of the game in order to secure the best outcome for yourself.

We can reimagine Cavell's famous reading of the love scene – that simulation of that which is not felt is easy for Goneril and Regan, allowing them to successfully perform for Lear, whereas Cordelia is incapable of simulating that which is genuinely felt – in the terms outlined above: Goneril and Regan have no problem focusing narrowly on the rules, while Cordelia is unable to disentangle the relationship between the love test and her actual feelings of love for her father. Coredlia's response makes explicit the disagreement about the relative importance of the rules of the game and the rules of the community into which it is embedded. Her response frames the game with respect to a broader community, invoking Deterding's "larger care for fair play:" "I love your majesty / According to my bond, no more, nor less" (1.1.90-91). It is, in this case, Lear who is encouraging the players to focus only on the rules of the game, and Cordelia who is concerned with "fair play" and concern for others.

There are other parts of *King Lear* that resonate with the logic and structure of video games: Lear's travel between his daughters' residences echoes the spatial exploration inherent in most roleplaying games, and this travel is completed with a dwindling party of adventurers (or, in Lear's case, a train of knights). Edgar's disguising himself as Poor Tom, and even Gloucester's journey to the sea have certain game-like elements to them.[29]

Beyond the resonances with *King Lear,* the relationship of the player to the affordances offered by the game – and what limitations there should be in accessing these – is a fundamental tension inherent to game design. The "karma" system in the *Ultima* games is an interesting

[29] On trust in theatre and *King Lear*, see Lupton, "Trust in Theatre."

response to this tendency in players: the morality of simulated violence aside, what Garriott describes having been surprised by – the desire to achieve maximum agency, and to catch the nearest way – is a typical negotiation of this tension, and the idea of moral consequences for actions cuts against this. *King Lear* deals with similar issues in its negotiation of the aging king's relationship to his daughters and his difficulty understanding the difference between what he can do and what he should do.

As Bogost describes it, "One of the unique properties of videogames is their ability to put us in someone else's shoes. But most of the time, these shoes are bigger than our own … Videogames let us wield deadly weapons. They let us wage intergalactic war. They let us take a shot on goal in the World Cup final" (18). Many video games are attractive not only because they let us imagine ourselves as larger than life, but also because, in most cases, the entire world of the game is designed for and exists only because of the player. One's agency is not unlimited, but it is unflinchingly central (a fact which has additional resonances with *King Lear*), and others in the world are generally only useful inasmuch as they advance the goals of the main character.

While Bogost's discussion centers around frailty in video games – which *Ultima* does not attempt to model – the realization that limitations placed on gameplay can force players to develop new relationships to the game world is both core to *Ultima V*'s conception and why it features so centrally as an inspiration for *LearQuest*. *Ultima V* attempts – in however simple a way – to impose consequences for decisions that create some sense of community or connectedness within the world of the game. Even if the world exists for the player, and even if the player's agency is (mostly) all that exists in the world of the game, there are still unintended consequences and affordances that are not immediately obvious and not directly under the player's control.

Speaking in terms of affordance theory, a video game that incorporates or attempts to simulate a moral universe affords a different relationship to that game's world than one that incorporates no such limitations. Moral considerations in video games substantially complicate the topography of affordances offered in the world of the game, allowing for more complicated investigations of agency and the player's relationship to the main character. This phenomenon is described by Scott Benson, co-creator of the award-winning game *Night In The Woods*. When discussing the player's relationship to the central character Mae, a twenty-year old who leaves college to return to her rust-belt hometown, he notes:

> We weren't interested in empowering the player to roleplay. Alec and I decided from the start that this was Mae's story, and she was her own person, and not a shell for the player …We were big on branching dialogue that felt organic and went on tangents, and were very anti Big Moral Choice moments. If anything we wanted to undercut any sense of the player being able to game her dialogue or character. This isn't a game about making the Mae you want. It's about exploring the Mae that is, and the world she lives in.

While Benson's description of his goals is substantially different than Garriott's, there is one interesting similarity: both game designers describe players *gaming* the system in ways they consider unacceptable. This speaks to a central tension at the heart of many games: while they tell stories and sometimes ask players to weigh the (simulated) moral consequences of their actions, the bedrock of what are broadly described as "mechanics" shape – and frequently cut against – the higher-level affordances offered by these games. It would be ill-fitting for a play such as *King Lear*, in which morality and who, exactly, is more sinned against than sinning is a constant question, to take place in a game world that simulated easy, direct agency and power without consequence. *King Lear* does not afford such easy answers, and embedding it in a game that did would keep major aspects of the play from being accessible. It is with these considerations in mind, then, that I will turn to a direct discussion of *LearQuest,* and describe my initial attempts at creating a video game world that is able to model some of the complexities of

King Lear, and which aims to offer players new ways of encountering the play and even attempts to generate new interpretive affordances.

LearQuest

I will ask for a small amount of latitude when beginning my discussion of *LearQuest*, in which I will focus on my own inspirations for the game and the game's overall design. In addition to having a place within the history of video games and adaptations of Shakespeare, *LearQuest* is a creative work, and as such also has a place in relationship to my own influences. I will begin by describing my design inspirations, before moving into an analysis of how the game relates to others in its genre and how Shakespeare and *King Lear* structures the game, and how the game resonates with the play, more generally.

LearQuest was designed with two core ideas in mind: first, that *physical interaction at a specific location* is a good way to make a memorable game experience that has similarities to a theatrical experience in the absence of the resources and time available to a video game production company. Many modern video games are produced by teams as large as those that accompany major motion pictures, and making games as an individual requires finding creative ways to make impactful games. The second core idea behind *LearQuest* is that a direct, simple style – in terms of artwork, in terms of controls, and in terms of gameplay – has the most potential to provide users with a dense but

Figure 2 - LearQuest cabinet

immediate experience of the game world, especially for those unfamiliar with video games. *LearQuest* accomplishes this direct experience by interposing as few potentially unfamiliar mechanics as possible between the player and the textual and interactive affordances of the arcade cabinet and the environments of *LearQuest*.[30]

These design principles were informed by the Elizabethan stage, in part – theatre is something that happens at a given time in a given place, and it is an event that has a body. Theatre has a time-bound, physical existence that takes shape, grows, goes through a relatively set series of processes – and ultimately disperses. The body of the Elizabethan stage, too, is rich without being overly adorned – props were few and significant, and set design was spare but crucial. The game format that comes closest to these principles is the arcade game. Because it is housed in a cabinet, playing *LearQuest* requires an encounter with this physical manifestation outside of the familiar environment of one's own home. Although the software can be copied exactly, the physical form can only be reproduced or imitated, and each player's encounter with the game takes place at a specific time, in a specific place, dictated not by the player's possession of a console but by the location of the game itself.

The simplicity and nostalgia of *LearQuest*'s visual style, modeled on the previously discussed *Ultima V* (pictured right), is an attempt to both participate in a stylistic mode that is currently undergoing a sustained renaissance, and to present players

Figure 3- Ultima V opening scene

[30] The game was designed and built before the COVID-19 pandemic; in response to the fact that it is neither safe nor in many places possible to visit arcades, a modified version of the game that will run on Windows PCs is currently being produced.

with a world that is as directly approachable as an Elizabethan stage. The Elizabethan stage was appointed simply, with a relatively small number of props and restricted scenery; *Lear* is, among other things, a play about navigating a dense space, layered with meaning, that becomes increasingly inhospitable and threatening as the characters navigate their way through it. The gap between the demands of the play and the affordances of Elizabethan stagecraft was largely bridged by performance and language during Renaissance productions of Shakespeare; these modes of negotiation are unavailable to the type of video game I am attempting to make. As such, the gap between those demands and the experience of playing a video game will necessarily be negotiated differently.[31] Ultimately, a simple, two-dimensional art style (in addition to being within my own abilities) affords players a direct engagement that does not require a complicated – and, for those less familiar with video games, confusing – navigation of a three-dimensional space; it affords both simplicity and density, and facilitates engagement with the verbal and moral world of *King Lear* rather than existing alongside or making more difficult that encounter.

Figure 4 - LearQuest opening scene

[31] Recall from Ioppolo's introduction to the Norton edition that Charles Lamb considered *Lear* to be "essentially impossible to be represented on a stage" and Hazlitt's famous introduction to his chapter on *Lear*, that "we wish we could pass this play over, and say nothing about it" (xi).

The housing of *LearQuest* in an arcade cabinet presents a unique challenge for interaction design. Typically, roleplaying games will have a relatively large number of possible actions the player can undertake at any given time, with each of these actions mapped to a specific key on the keyboard, as is depicted in the "command summary" from *Ultima V*. This design centers the character's intentions and imagines interaction with the game world as choosing from a menu of potential actions; if an inappropriate action is chosen for the immediate environment, the player is given an error message. This is not practical for an arcade game, where even the more complicated control configurations feature a relatively small number of buttons, and where players may not have time (or attention) to learn a complicated control scheme. Additionally, a control style that imagines the world from the point of view of the player's intention rather than the environmental affordances is less suitable for the goals of the game.[32]

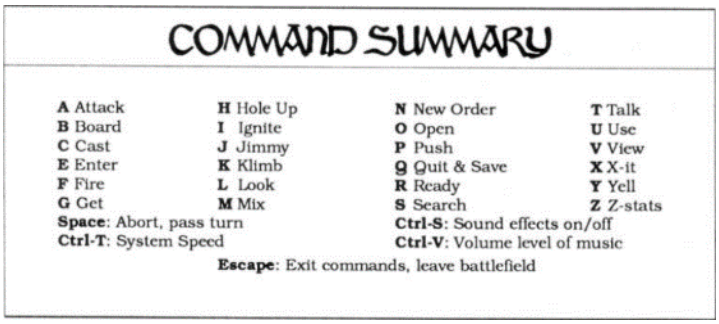

Figure 5 - Ultima V command summary

Figure 6 - LearQuest Control Panel

LearQuest's available controls (depicted left) are limited to a single joystick and three buttons; of these three, one is the "interact" button, which allows for contextual interaction with the game world. Objects and characters in the game have, as one of their properties, a default action; pressing the

[32] Many arcade games are designed to have as few controls as possible; *Joust* is famous for featuring only a single button, and *Robotron 2084* has no buttons at all, instead using joysticks to control both movement and firing.

interact button causes interaction pictographs to show over the tiles directly adjacent to the player. These pictographs indicate what action will be performed when that tile is selected, as depicted above. Instead of choosing from a set menu of options, the game environment announces its affordances to the player, creating a world where agency is shifted slightly outward from the player: while they still move and choose which tiles to interact with, the world itself decides what action can be taken.

Figure 7 - LearQuest interaction icons

The world of the game is designed to be a compelling space that invites players to not only interact but explore, and this capaciousness allows the game to offer players an encounter with text from Shakespeare's plays outside of the main story. Where possible, the objects that populate the world of *LearQuest* have been given descriptions from *King Lear* or other plays. For example, when a player looks at a deer head mounted on the wall, the description announces "Poor deer – thou makest a testament as worldlings do, giving thy sum of more to that which had too much," lines which are adapted from *As You Like It* (2.1.46-9). Where Shakespearean descriptions are unworkable for particular objects, those objects have been given descriptions written in my own style. I decided to write in my own style for objects I could not find fitting quotes for because I did not want to end up trying to "supplement" in the style of Renaissance plays; I thought it would be more interesting (and more successful) to add my own voice as a second alongside the material brought in. Including my own voice is a process that, through the art, game, and physical enclosure design, is already necessarily a part of the work, and so incorporating it into the language is a continuation, rather than an imposition.

The world of *LearQuest* has features typical of other roleplaying games – an overworld map, depicted to the right, the ability to travel from place to place and enter and exit individual buildings or settlements, creating a larger geographic space that the player can explore and inhabit, and giving a more substantial sense of scale to a world which would otherwise feel confining and small. The overall goal in the construction of the game world is to create a *space* in which players can encounter not only the plot and language of *King Lear* but as much Shakespearean language as possible. As Henry Jenkins argues, "game consoles should be regarded as machines for generating compelling spaces," (122) and it is not only Bogost's possibility space for games that is "complex" and "graduated" (151) but the interior space of the game itself. The creation of a compelling space for exploration allows for multiple goals to be accomplished simultaneously: we can "evoke pre-existing narrative associations," "provide a staging ground where narrative events are enacted", and finally "embed narrative information within [the game's] mise-en-scene" (Jenkins 123). This strategy is particularly suited to encountering Shakespeare, as the game can evoke both narrative associations with other roleplaying games the players may have encountered, as well as other plays they may be familiar with; it can dramatize some of the plot of *King Lear*; and, finally, it can embed not only narrative information about the plot itself but also about the broader world of Shakespeare's plays into its objects, spaces, and interactions.

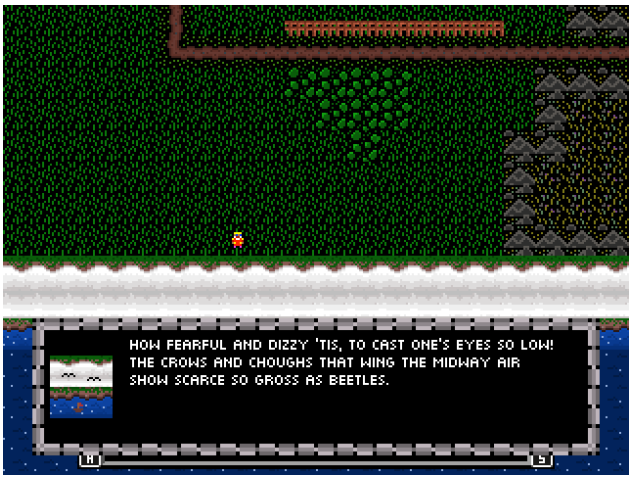

Figure 8 - LearQuest overworld map

Two mechanics that are unique to *LearQuest* are its health and combat mechanics. In the majority of games, there is both a victory and a loss condition, and the loss condition in roleplaying games typically happens when the player runs out of health (as a result of combat, environmental hazards, etc.) and dies. Some games – especially in the survival horror genre – have an additional mechanic for sanity. The use of "sanity" as a corollary to – or equivalent of – health is problematic in its relationship to mental health and mental health discourse, but the relationship of the aging king to his own sanity is central to *King Lear*. The way I have addressed this in *LearQuest* is by adding a "Sinned Against / Sinning" meter – a status indicator that keeps track of whether the player is more sinned against or more sinning. When the player becomes too much more sinned against than sinning, there are consequences to gameplay: the screen becomes red and difficult to see, and shakes in proportion to how sinned against the player has become. This is intended to destabilize the player's experience of agency in the game-world; using altered user interface or control elements to indicate temporary status effects or altered states of consciousness is fairly common across roleplaying and adventure games.

Figure 9 - LearQuest heads-up display (HUD), including inventory, active quests, health, and sinned against / sinning meter

The battle mechanics in *LearQuest* also differ somewhat from those of typical roleplaying games. The central conflicts in *King Lear* revolve around relationships and the erosion and destruction of those relationships; the acts that cause this deterioration are speech

acts, rather than acts of physical violence. Instead of engaging in combat using swords, bows, and magic, *LearQuest*'s combat revolves around these central moments of critical language, requiring the player to engage in a rhythm game similar to *Dance Dance Revolution* to successfully complete the curse. When the player enters a situation where Lear is performing a curse, the game screen is replaced by a battle screen where the words of the curse scroll upward, aligned with one of four arrows. When the words reach a box underneath each arrow, the player must move the joystick in the corresponding direction; doing so while the word is in the box causes that portion of the curse to be successfully articulated.

Figure 10 - LearQuest battle screen

The ultimate goal of the game is to allow players – by navigating and investigating a space as Lear – to encounter a version of the landscape and some of the language of *King Lear*, which should provide players with an experience both familiar and unfamiliar: many of them will have played the type of roleplaying game that *LearQuest* is based on, but almost none of them will have done so on an arcade machine (I am not aware of any that exist), and most of them will not have engaged with a Shakespeare game in public.

By mixing the familiar and unfamiliar, I hope to activate some affordances that may otherwise be dormant, and through the necessary identification that occurs when someone – quite

literally – plays the role of a particular character, I hope to allow gameplayers to encounter the language and environment of *King Lear* in a mode other than spectatorship or readership. *LearQuest* is designed to give players an experience that can activate the hidden potential of individual lines or speeches, an experience that brings players to the world and lets them see it feelingly it by exploring, interacting, and – sometimes – becoming frustrated. *LearQuest* is designed to be an experience that takes many of the affordative possibilities of theatre and translates them into another, different, but not entirely separate genre.

Like many artistic projects, *LearQuest* remains a work in progress. And, as of the writing of this chapter in January 2021, it is still neither safe nor feasible to exhibit *LearQuest* publicly. In response to this, I have begun making a version which will be available to play on Windows PCs. While the conversion project is outside the scope of this chapter, the continuing effort to adapt Shakespeare to new modes of distribution and in response to new social crises – much as the anonymous diarist quoted by Doty did – is very much in line with both the goals of this dissertation and the history of Shakespearean adaptation, and it is my hope that this adapted version will also eventually lead people to new encounters with Shakespeare, and allow them to take some small bits of it for their own uses, whatever form that may take.

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