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EILEEN HUTTON
BEING IN THE LAND
A SCULPTURAL INVESTIGATION
OF ECOLOGY

National University of Galway, Ireland
The Burren College of Art

Professor Timothy Emlyn Jones, Professor Rod Stoneman

Thesis submitted in fulfillment of the requirement of the degree
Doctor of Philosophy in Studio Art

2012
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Abstract

This doctoral research addresses the question “How may sculpture be generated as a result of a reciprocal relationship with the natural environment?” Through an integrated theoretical and practical framework, the sculptures of this doctoral enquiry represent new ways of understanding landscape in art. Founded on the principles of ecology, these sculptures are models for engaged and informed interaction with the natural environment, for artists as well as for the layman.

This thesis consists of four parts. The first part of the submission comprises documentation of the exhibition that embodies the contribution to knowledge and understanding. The works exhibited are also documented and then discussed extensively in the final chapter of this thesis.

The second part of the submission is the reflective analysis of the theoretical and historical context of research, which is say the field of enquiry. The critical consideration of this field of enquiry begins with a discussion of the cultural, historical, scientific and experiential elements that constitute Western conceptualizations of and relations to the land and thus to the representation of landscape. As such, I discuss landscape theory and phenomenology as frameworks for understanding and gaining insight into this complex relationship. This section then critically considers the art historical field of enquiry, specifically the Western tradition of the representation of landscape with regard to landscape painting, Land Art, and contemporary Environmental Art. Here, I align the evolution of the representation of landscape with humanity’s evolving relationship to the natural environment.

The third part of the submission, the critical review of the process of the research, describes and evaluates the methods and methodology of the past three years of this research project. I explore the progression and development of my artistic practice during this time through nine works of art. The works include Extended Life, Moving Moss Stones, A Presentation of the Landscape, The Microscopic Photograph Series, The
Abstract


Akin to the parallel evolutions of Western landscape representation and humanity’s relationship to the natural environment, my sculptures demonstrate the evolution of my relationship to the land of the Burren in County Clare, Ireland. In the final chapter, I discuss in detail the sculptures that have been generated from my research question.

Finally, the fourth part of this submission is a five hundred-word summary of my contribution to knowledge and understanding. It discusses the ways in which my ecological sculptures are a contribution not only to the field of Environmental Art, but also to the field of the representation of landscape, as they and their innovative means of production provide new ways of understanding of humanity’s relationship to the natural environment.
Part I

Documentation of the Exhibition that Embodies the Contribution to Knowledge and Understanding
Installation view of the exhibition including the painted map and suspended nests
(\textit{The Collaborations with Blue Tits and Great Tits})

Detailed view of hexagonally shaped nest suspended over the location on the map
where the nesting box was located in the Barren landscape
Aerial view of right portion of The Collaborations with Blue Tits and Great Tits and painted map of the Burren

Aerial view of left portion of The Collaborations with Blue Tits and Great Tits and painted map of the Burren
Aerial view of The Collaborations with Blue Tits and Great Tits and entire painted map of the Burrow landscape
Detailed view of hexagonally shaped nest

Each hexagonally shaped nest received a numbered tag that corresponded to a numbered location on the painted map where the original nesting box was located in the Barren landscape.
Detailed view of hexagonally shaped nest.
Detailed view of hexagonally shaped nest
Detailed view of hexagonally shaped nests suspended over the map of the barren landscape painted onto the floor.
Installation view of The Collaborations with Blue Tin and Great Tin, take-away nesting boxes and map of the Barren landscape painted onto the floor.

Installation view from the far end of the gallery.
Take-away nesting boxes made from upcycled cardboard boxes

Detailed view of take-away nesting boxes
Visitors to the exhibition viewing and subsequently removing the take away nesting boxes.

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The pamphlet that accompanied the take away nesting boxes detailed the importance of bird conservation and also gave instructions for installation the boxes in people’s gardens.
Installation view of *The Collaboration with the Native Irish Black Honeybee*

Viewer listening to sound recording emanating from small speakers mounted behind the honeycomb. The hexagonal cells amplified the recording of my process of beekeeping combined with the hum of the colony.
The Collaborations with the Native Irish Black Honeybee (sculpture #1)
The Collaborations with the Native Irish Black Honeybee (sculpture #1)
The Collaborations with the Native Irish Black Honeysbee (sculpture #2)
Detailed view of The Collaborations with the Native Irish Black Honeybee (sculpture 42)
Detailed view of *The Collaborations with the Native Irish Black Honeybee* (sculpture #3).
The Collaborations with the Native Irish Black Honeybee (sculpture #3)
Part II

The Reflective Analysis of the Theoretical and Historical Context of Research
Introduction to Part II  
The Reflective Analysis of the Theoretical and Historical Context of Research

The second part of this thesis is the reflective analysis of the theoretical and historical context of research, which is say the field of enquiry. Chapter One, *Land Into Landscape*, discusses landscape theory through Western perceptions of the land, considering the historical, geographical, and cultural contexts. Having established the term and concept of landscape as fundamentally engaged with and shaped by ideology, I explore the notion that the land also exists independently of these conceptualizations. Specifically, I argue that phenomenology provides an additional structure for determining meaning, that is, for knowing the land. Central to my discussion of phenomenology is the importance of Dasein, Heidegger’s term for the concept of being-in-the-world, and Sorge, Heidegger’s term for the nature of Dasein’s intentionality. These concepts are explored so as to comprehend and articulate humanity’s means for experiencing and thus knowing the land. Chapter One establishes the ways in which humanity, namely Western society, relates to and perceives the land in order to provide a foundation for interpreting the representation of the landscape and the art that is derived from this process including Environmental Art.

Chapter Two, *Landscape Into Art*, critically assesses the representation of the landscape. Specifically, the chapter explores artistic representations of the landscape from early Egyptian art to that of the twentieth century. This serves to establish landscape painting as a historical precedent for Environmental Art, which will be discussed in subsequent chapters of this thesis. Rather than give a complete historical account of the lengthy and complex movement, the chapter begins with a brief discussion of select Egyptian and Byzantine works of art so as to present a few of the earliest examples of the representation of landscape in art. The primary focus of the chapter then centers on the discussion of Western landscape painting through a typology of pictorial approaches introduced by Paul Zucker in *Styles in Painting: A Comparative Study*. In order to critically assess the pictorial approaches and thereby develop each further, I discuss each

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1 This thesis critically considers and subsequently discusses ‘landscape theory’ as presented in *Landscape Theory* edited by Rachael Ziady DeLue and James Elkins.
categorization of approaches through my own selection of landscape-based paintings. Extending his analysis, I argue further study of these pictorial approaches provides a visual record of an evolving relationship between humanity and the natural environment. Importantly, the final two categorizations, *landscape as central theme* and *landscape as expression of mood*, are exemplified in Romantic landscape painting, one of the foundations of Land Art. As such the remaining sections of this chapter critically assess the tenets of the sublime and the picturesque as illustrated through both Romantic landscape painting and Land Art. This analysis articulates the connections between the two genres and then serves to establish Land Art as an artistic precedent for Environmental Art. A central argument within Chapter Two proposes that the representation of landscape as the central theme in a painting, in any work of art, is ultimately the depiction of a relationship between humanity and the natural environment. I argue that this is the most significant contribution of Romantic landscape painting with regard to Environmental Art: it established the validity of an artistic genre focused solely on the various expressions of humanity’s relationship with the natural environment.

Chapter Three, *Landscape Representation Transformed*, further evaluates the visual and conceptual evolution of this relationship through the analysis of Land Art and Environmental Art. This chapter begins with the critical assessment of Land Art as the starting point for Environmental Art and the genre that revolutionized landscape as a theme in art. I review Land Art beyond its expression of the sublime and the picturesque as introduced in Chapter Two. The philosophies, intentions and works of select first generation American Land artists are contrasted to the parallel but vastly different movement of the British Land artists. Specifically, I detail how the genre of Land Art transformed landscape representation within, as well as outside, conventional exhibition spaces. I then discuss the works of the first Environmental artists, whose practices engaged with the landscape “with an activity meant to remedy damage.”

Although Land Art began to restore the viewer’s attachment to the landscape with indoor installations of organic material, I argue that it was Environmental Art that ultimately transformed humanity’s relationship to the natural environment.

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In the final chapter of this section, Chapter Four: *Contemporary Environmental Art*, I discuss contemporary environmental artistic practices with relevance to the field of enquiry. Specifically, I created the following typology: *artist as ecologist, artist as collaborator with animal species* and *artist as environmental catalyst*. The category *artist as ecologist* discusses the environmentally based practice of Mark Dion. The category *artist as collaborator with the animal species* discusses collaborative arts practices in relation to contemporary artist Aganetha Dyck’s practice. It also discusses the individual collaborative projects of Nina Katchadourian, Hilary Berseth, and Tomas Gabzdil Libertiny. The category *artist as environmental catalyst* explores relational aesthetics with regard to the practices Helen Mayer Harrison and Newton Harrison and Brandon Ballengée. These themes are not intended to provide a comprehensive overview of Environmental Art, rather they narrow the field of enquiry that is relevant to my particular doctorate, specifically with regard to my sculptural investigation of ecology and my artistic collaboration with the Irish Black Honeybee, Blue Tits and Great Tits.
The Reflective Analysis of the Theoretical and Historical Context of Research
Chapter 1: Land Into Landscape

“Landscape is a way of seeing, it is a symbolic system, it is a matrix for conveying ideologies, and it is also a way of knowing.”¹ Diane Harris, “Self and Landscape”

“I suspect that theorizing on landscape, which was once avowedly an ideological matter, has been increasingly replaced by a kind of de facto phenomenological understanding.”² James Elkins, *Landscape Theory*

Introduction

Land is raw material. Landscape is ideology. A conceptual transformation occurs when land becomes landscape. It is necessary to first examine the ideology³ of landscape in order to understand this conceptual transformation and thus the representation of the landscape. Critically assessing the influences that have shaped the present day belief systems, namely of Western society, provides a basis for understanding both viewers’ and artists’ interactions with the representation of the landscape and the art that is derived from this process including Environmental Art. This chapter discusses landscape theory through Western perceptions of the land, considering the historical, geographical, and cultural contexts. Having established landscape as fundamentally engaged with and shaped by ideology, I explore the notion that landscape also exists independently of those conceptualizations. I argue that phenomenology provides an additional structure for determining meaning, that is, for understanding the land. Central to my discussion of phenomenology is the importance of Dasein, Heidegger’s term for the concept of being-in-the-world, and Sorge, Heidegger’s term for the nature of Dasein’s intentionality. These concepts are explored so as to comprehend and articulate humanity’s means for experiencing and thus understanding the land.

³ Webster’s Encyclopedic Unabridged Dictionary of the English Language. s.v. “ideology.” This definition states that ideology is a systematic body of concepts; a manner or the content of thinking characteristic of an individual, group, or culture; the set of beliefs characteristic of a social group or individual.
Landscape Theory

Landscape is a complex and difficult subject. The term of reference, ‘landscape,’ is probably best understood through a synthesis of discourses and definitions given from a variety of disciplines and practices. However, the etymology of the word provides an initial insight into the ideology associated with the land. “Danish landskab, German landschaft, Dutch landschap, and Old English landscape combine two roots. ‘Land’ means both a place and the people living there. Skabe and schaffen mean ‘to shape’; suffixes –skab and –schaft as in the English ‘ship,’ also mean association, partnership.”¹ This annotation details an historical perspective of the deep-seated relationship between humanity and the land.

Before proceeding further, it is necessary to first articulate what is meant by ‘humanity’ as referred to throughout this thesis. Due to time and spatial constraints, I was not able to include a discussion of every society’s various relationships to the land. Notably, the rich and complex cultures of Asia, Africa, South and Central America, which have contributed greatly to the representation of landscape in art throughout history, are not presented here. Additionally, the thesis does not include a discussion of indigenous peoples or tribal cultures, such as the Aboriginal, Inuit or Native American among others, or their distinctive relationships to the land. Nor does it refer to persons who actively seek, through cultural or spiritual means, or otherwise, engagements with and experiences of the land. An enquiry into these cultures’ relationships to the landscape, in addition to others not mentioned here, would undoubtedly yield intriguing insights that would contribute to a global understanding of how human beings relate to and perceive the landscape. However, the focus of this thesis is centered on Western perceptions, relations, experiences and representations of the landscape. For the sake of succinctness, my use of the term humanity from this point forward, shall therefore broadly refer to European and North American civilizations.

Landscape Theory\textsuperscript{5} discusses landscape as ideology, an inherited knowledge structure and as a set of learned and experienced beliefs and belief systems that inform humanity’s daily interactions with the surrounding physical world. It is a synthetic evaluation and theoretical overview of how best to conceptualize landscape in art and as art. The ideological critique of landscape developed around the late twentieth century. Prior to that, in Western civilization, two principal senses of the landscape had already been clearly articulated. The first conception of landscape was as a spiritual and an aesthetic response to the natural world, especially as it was viewed in the Romantic tradition. Chapter Two subsequently details this relationship between humanity and the natural world. The discussion of Romantic ideology is situated in the following chapter as it is specifically pertinent to the representation of the land. The second conception of landscape was, and still is in part, as a product of natural and geological forces, of scientific study. For the purposes of this chapter, I discuss geography in terms of the contemporary body of knowledge it contributes to current ideologies of the landscape.

Scientific Construction of Landscape

Although this chapter specifically addresses the ideology of the landscape, I will briefly discuss the term nature so as to establish a broad definition that will be referenced throughout the thesis. Nature is complex term loaded with implications. In What is Nature? Kate Soper writes that, “It is at once both very familiar and extremely elusive: an idea we employ with such ease and regularity that it seems as if we ourselves are privileged with some ‘natural’ access to its intelligibility; but also an idea, which in some sense is… so various and comprehensive in its use as to defy our powers of definition.”\textsuperscript{6} Nature is, however, defined through historical and artistic contexts, in relation to culture, and discussed with reference to the sublime and metaphysical. It is also described through scientific analyses, with regard to gender and politics, and is often used to distinguish the un-built environment from the built environment.

\textsuperscript{5} Rachael Ziady DeLue and James Elkins, eds. Landscape Theory (New York: Routledge, 2008).
Although it is an elusive and elastic term, Soper proposes three distinct but interrelated discourses that provide a platform for the analysis of the term nature. The first discourse refers to the metaphysical concept of nature which questions humanity’s relationship to the natural world. It is the basis for examining the separation and/or unity of culture and nature and it includes the notion of the subject’s relationship to an object. The second discourse is referred to as a realist concept of nature. This concept of nature denotes the structures, processes and systems that are ever-present forces within the physical world such as evolution, procreation, death, as well as geographical forces such as earthquakes, tornadoes and volcanoes. Although this understanding of nature is the topic of scientific analyses, humanity is still subject to its processes that ultimately we can neither escape nor destroy. The third discourse is typically employed as a lay concept, referring to the readily observable features of the world. It denotes “the ‘natural’ as opposed to the urban or industrial environment (‘landscape’, ‘wilderness’, ‘countryside’, ‘rurality’), animals, domestic and wild, the physical body in space and raw materials.” The lay concept of nature is the nature of immediate experience and aesthetic appreciation. In conclusion, the synthesis of these three discourses contributes to a broad yet informed understanding of the concept of nature and ultimately the landscape.

Within the scientific field, geography as a set of learned beliefs and belief systems, is one of the main disciplines that analyzes landscape and has arguably played a role in influencing societal and scientific understanding of the natural world. Coming into existence as a university subject in the late nineteenth century, geography is one of several fields of study, others being the physical, medical and engineering sciences, devoted to the research of natural phenomena.

Within geography, the two main subcategories are physical geography and human geography. As the names imply, one branch is predisposed to view natural phenomena and the landscape as socially constructed and the other predisposed to view them as naturally constructed. Pure physical geography focuses on environmental processes and

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8 Ibid., 156.
forms and seeks to provide objective knowledge regarding the non-human world. Its subcategories include geomorphology, hydrology, climatology and biogeography. Within this discipline, physical geographers generally presuppose three things: firstly, “that the non-human world is real and its characteristics are irreducible to any given set of human perceptions about, or practices upon it; the non-human world has an inherent order which, however complex, is amenable to discovery; and though we may value the non-human world in moral and aesthetic ways, science is concerned primarily with cognitive matters.”

Furthermore, physical geographers argue against the notion that nature is socially constructed stating regardless of humanity’s representations of the natural world, nature still exists independently; the Grand Canyon and the Pacific Ocean are not bound to artistic depictions or literary interpretations. Additionally, physical geographers state though representations of the natural environment may be constructed, they may also be accurate constructions if arrived at using appropriate procedures such as scientific methodology.

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10 Ibid., 101.
Human geography, on the other hand, is a discipline that produces knowledge of humanity’s understandings of nature and the social processes associated with the transformation of the natural world. Its contemporary divisions are associated with economic, social, cultural, developmental and political geography. The first human geographers attempted to empathetically understand the beliefs and values individuals or small groups of people attached to particular places and local environments. The initial research of human geography “emphasized the subjective dimensions of human existence over the brute objectivity of built and natural landscapes.”\(^{11}\) Since the 1990’s, the discipline has shown, in representational and physical terms, that the non-human world, to some degree, is socially constructed. For instance, human geography claims that representations of the natural world speak more about those who are representing than about ‘the nature’ they supposedly depict. Furthermore, the examination of social relations, values and norms, has led human geographers to conclude that society is responsible for the transformation of the non-human world in many ways; biotechnology, the genetic modification of agricultural products, and the cloning of livestock are but a few examples. This argument posed by human geographers, which states the majority of the natural environment is no longer ‘natural’ and has not been for some time, is referred to as de-naturalization.

A third subcategory of geography, environmental geography, depicted in the diagram above, is a ‘human-environment’ hybrid. The subjective human experience and the objective scientific analysis of this hybrid domain are specifically relevant in the context of Environmental Art and provide fertile ground for the creation and discussion of this genre of art. Environmental geographers study the ideas about, understandings of and uses of the physical environment. Although not as large an area of study as physical or human geography, this discipline analyzes a wide range of topics from “sustainability research, environmental regulation and governance research to resource geography and expert and lay knowledge research.”\(^{12}\) Environmental geographers study the combination and implication of how elements such as land-use practices, people’s perceptions of the

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\(^{11}\) Castree, *Nature*, 78.

\(^{12}\) Ibid., 103.
landscape and the physical impact natural occurrences such as flooding or earthquakes, combine to produce an understanding of the natural environment. “For the most part, these geographers combine a broad intellectual training with a detailed grasp of how social and physical processes intertwine.”13 This discipline provides important insight into how humanity shapes and is shaped by the natural environment.

The descriptions of human, physical and environmental geography have detailed the scientific construction of knowledge of the natural environment and have touched upon social and historical conceptions of the landscape. A more in depth analysis of the ways in which landscape has been socially constructed is discussed in the following section through human geographer Denis Cosgrove’s notion of landscape as a way of seeing.

**Social and Historical Construction of Landscape**

The two dominant senses of humanity’s relationship to the landscape in Western civilization, as previously noted, were the romantic and the scientific. By the late twentieth century, these structures for determining meaning had become insufficient for addressing the evolving, contemporary dynamic between humanity and the natural environment. The notion of landscape as ideology, as an unconscious inherited knowledge structure, is often credited to Denis E. Cosgrove author of *Social Formation and Symbolic Landscape* in 1984. He outlines the ways in which the ‘land’ has been socially appropriated in the West specifically through its use value under feudalism and its exchange value under capitalism. As a concept, Cosgrove states the landscape is not simply a physical environment for people to see, study, use or enjoy. It is understood as the result of a pictorial, representational practice and, as a way of seeing. Importantly, the meaning of ‘landscape’ extends beyond the viewer’s relationship with an art object. The central definition of Cosgrove’s argument, which seeks to connect the appearance, meanings and expression of the idea of landscape, states:

> “The landscape idea represents a way of seeing-a way in which some Europeans have represented to themselves and to others the world about them and their relationships with it, and through which they have commented on social relations. Landscape is a way of seeing that has its

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own history, but a history that can be understood only as part of a wider history of economy and society; that has its own assumptions and consequences, but assumptions and consequences whose origins and implications extend well beyond the use and perception of land; that has its own techniques of expression, but techniques which it shares with other areas of cultural practice.”

Cosgrove argues particularly that as capitalism of the 15th and 16th centuries created a host of newly wealthy urban merchants and industrialists, it was this elite class who were, in part, responsible for creating new visions of the landscape. Notably, their constructed views articulated within commissioned landscape paintings often showed little to no human presence. These paintings, however highly idealized, appeared realistic due to the implementation of the newly invented artistic methods for conveying three-dimensional perspective. These representations of the landscape were also to a great extent influenced by cartographic methods and new surveying techniques of the landscape. Cosgrove states that these “parallel developments suggest an attempt on the part of the Europeans to clarify a new conception of space as a coherent visual structure into which the actions of human life could be inserted in a controlled and orderly way.” If peasants or laborers were depicted in the landscape, it was to portray harmonious accord with picturesque surroundings. This portrayal did not represent the harsh or impoverished living experience of those who worked and lived off of the land; it represented the landowner’s desire to have a pleasing, compact, indoor depiction of the scope of his land. Van der Wyngaerde and Bruegel the Elder’s landscape depictions below clearly demonstrate Cosgrove’s argument.

2. Anton van der Wyngaerde, *View of Madrid*, 1535

3. Pieter Bruegel the Elder, *The Harvesters*, 1565

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As well, the idealized relationship between the peasant and rural scenery served to remove any moral responsibility the landowner may have unwittingly felt towards those under his employment. The paintings produced for wealthy landowners became visual equations to their fiscal possession of the land. “For in an important, if not always literal, sense the spectator owns the view because all of its components are structured and directed towards his eyes only.”\textsuperscript{16} The artifice of the pastoral landscape, in effect, pictorially represented class structures. Cosgrove argues further that as a whole, the genre of landscape painting arose from and reproduced the social relationships of a class divided, capitalist society. “It is a view from above, both literally and socially, that hides those who work on the land and who cannot own it while, at the same, erasing its own specificity.”\textsuperscript{17}

Cosgrove’s argument begins to unpack a complex subject through examination of its social formation, and is specifically important because it discusses the influence of visual constructions of the landscape, as well as written and spoken ones. However, it is necessary to further expand this discussion in order to fully envisage the construction of ideology and its influences on Western perceptions of landscape. The following section explores the landscape as defined through its processes and materiality and refers to the writings of Anne Whiston Spirn, landscape architect and photographer, who has made major contributions to understanding landscape through this structure of meaning.

**The Shaping of Landscape through Materiality and Process**

Landscape may be known as a work of production, a physical shaping and reshaping of the land, related to its own materiality and processes including but not limited to geology, weathering and farming. It follows then that “understanding landscape as the product of interacting processes provides a way of seeing relationships among actions and


\textsuperscript{17} Mark Dorrian and Gillian Rose, eds. *Deterritorialisations...Revisioning Landscapes and Politics*. (London: Black Dog Publishing Limited, 2003), 14.
phenomena that may appear unconnected, but are, in fact closely related.”18 Landscape, in this manner, develops as a set of beliefs and belief systems through learned experience. It is the combination of both natural and cultural processes that shape the landscape and it is through the elements of the land that these processes are manifested.

When considering the landscape through materiality and processes as posed by Spirn, the natural world is intuitively known through subjective experience. From this point of view, one knows the coldness of a stone against the skin. One can hear the brittleness of dried leaves under foot or feel them crumble with a crush of the hand. The dank, musty smell of wet earth is familiar, as is the intricate symmetry of a snowflake. The suppleness of new plant growth in the spring is also well known. “We see, smell, hear, touch and taste landscapes through materials; they are sensual.”19 One’s subjective experience of these objective phenomena makes them evocative in their interpretation.

The materiality of the land may be further explored through a brief discussion of the classical elements earth, air, fire and water. Notably, this consideration reveals a fraction of the material potency of the various and numerous elements of the land. “Water is paradoxical: yielding yet powerful, transparent yet reflective, a leveler, eroding mountains into plains, cutting valleys, smoothing stone.”20 It exists frozen as glaciers, ice and snowflakes; it is fluid in rain, rivers and the oceans; it is a fine mist and a vapor. It binds chemically with other elements to create new compounds and is essential to life on the planet. Air is wind, soft breezes and gale force turbulence. It is breath; it sustains plants, humans, reptiles, and mammals. It fuels fire and as oxygen is bound with hydrogen to form water. Fire lends warmth in a hearth or campfire, light and ambiance through candles. Its power is awesome in lightning, explosions, and forest fires. It has the ability to melt or disintegrate materials based on their individual properties. Even soil, everyday dirt has the capacity to decompose one life form to sustain another. The

19 Spirn, The Language of the Landscape, 97.
20 Ibid., 100.
elements of the land or materials, as Spirn terms them, “are dynamic, constant but constantly changing, moving, growing, decaying, transforming.”

The materiality of the land may also be considered through cultural interpretations and perceptions of elements of the land. Art historian and critic Rebecca Solnit articulately states that the term “substance suggests that meaning is inherent in the world rather than something that needs to be inscribed upon it and it proposes meaning that can be read in the world itself- the world as language.” The meaning of organic matter, designated as material, is culturally inscribed as well as naturally inherent. Stone, solid and enduring by its nature, expresses the eternal through grave markers, commemorative political statues, and monumental buildings. Water is used for cleansing purposes both physical and spiritual as it is used in baptism, blessings, and purification rituals. Fire used for cooking and warmth is held as a symbol for transformation and regeneration throughout mythology and in ancient cultures such as the Aztecs.

The natural processes that continually shape and transform the land include but are by no means limited to: erosion, burning, flowing, growing, decay, regeneration, evolution, circulation, evaporation, shifting, settling and adaptation. It is easy to discern these effects on the land in regions where a single process or set of processes dominate; for example in arid deserts, karst landscapes, or savannahs. However, the majority of land is shaped by a combination of processes that “are simultaneous and successive, congruent and conflicting, layers upon layers, overlain and overlapping, once acting or still acting.” Processes are durational; erosion of beaches can happen overnight during a hurricane, the melting of glaciers can take decades or days. These periods can stretch over time or happen in brief sporadic spurts. Processes have speed; a forest fire can consume acres in seconds while a volcano can ooze slowly to form a landmass. Natural processes also have rhythm; the tides are determined by the monthly moon cycle and the

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seasons are cyclical. All of these processes help to shape the land and to a great extent influence the people living on the land.

In turn, however, it is also society that shapes and influences the formation of the landscape. The cultural shaping of the landscape is not only a direct influence “with hands, tools, and machines but through law, public policy, the investing and withholding of capital, and other actions undertaken hundreds or thousands of miles away.” Governments and corporations determine how the land and its materials are to be used and appropriated, from national parks, to the consumption of natural resources, to zoning of land for agricultural, residential, or business purposes. The conscious processes that shape the landscape are visible wherever there is evidence of human presence.

These particular processes exerted by human beings tend to manifest as means to an end, as ways to support life, adapt to surrounding environments or to relate to others. “Most basic are those processes essential for survival of the individual and species: physical-moving, exchanging, sensing, reproducing, growing, and decaying; social- identifying, communicating, making/building, trading, playing, learning competing, and fighting; spiritual-dreaming and worship.” The habitats and built environments of human beings tend to take into account, with the aim to satisfy, primarily the basic physical and social needs and at times spiritual needs. In conclusion landscape, explained as a work of production, a physical shaping and reshaping of the land, related to its own materiality, natural and cultural processes, is a particular structure of meaning, which influences Western perceptions of landscape.

**Landscape as Scene**

Throughout this chapter, references have been made to the artistic representations of the landscape. Although the conversion of landscapes into aesthetic scenes, through painting, will be discussed more thoroughly in following chapter, I mention a few points now so as to situate this framework within the overall critical consideration of ideology of the landscape.

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Landscape is understood as a phenomenon that is viewed, constructed through space and time. This notion speaks of the viewable portion of the Earth’s surface. In a philosophical sense it is the subject or the self, perceiving the object or the physical materiality and processes of the natural environment. It is the landscape that is ‘out there,’ a vista separate from the viewer. It is understood through the physical space it occupies or ranges over within any given area. It is also seen as a location in which a series of events continually and indefinitely occur or as a site that allows the human intellect to continually order and sequence events.

“Landscape in art, as conventionally conceived and executed, is a framed representation of a section of the natural world, a cropped view, selected and reduced so that it can be a portable memento of an arresting or pleasing visual experience of rural scenery.”25 The representation of landscape functions in a variety of ways according to purpose, subject matter, artistic medium, intention and execution as well as audience. It can act as an historical document. It can visually express the ideology of the landscape. It can perpetuate visual prejudices of social hierarchies in relation to the land. It can also dictate expectations of how to view, relate to or experience the land. “Thus a landscape painted in accordance with pictorial rule, or nature observed by an eye trained to look at it as landscape, is in important respects far from being realistic. It is composed, regulated and offered as a static image for individual appreciation, or better, appropriation.”26

Concluding the portion of the chapter dedicated to defining the ways in which landscape is ideology, I propose the question: Are the previous ideological constructions the only ways in which to understand the landscape? Or in Rachael Ziady DeLue’s words, “What do we miss when we don’t allow ourselves to see anything but ideology”?27 Landscape is not solely comprehended through historical, scientific or social construction. There are other ways of understanding humanity’s relationship to the land. The discussion of landscape through its materiality and processes indicated the beginnings of an alternate

25 Andrews, Landscape and Western Art, 201.
26 Cosgrove, The Palladian Landscape, 26.
means for interacting with the landscape, through experiences of sight, sound, touch, and smell. Phenomenology, as an additional structure for determining meaning, further extends an understanding of the land by detailing the nature of experience and intentionality. “One of the things that a phenomenological reading allows us is to break down the subject-object relation, to break down the idea of landscape as a view. It is about lived experience, rather than ‘me-it,’ or self and other. That is one of the things the phenomenological has to offer, landscape as a thing we live within.”28

**Heidegger: Dasein and Sorge**

The following section of this chapter discusses phenomenology and specifically Heidegger’s concepts of Dasein and Sorge so as to comprehend and articulate humanity’s means for experiencing and thus understanding the land. Notably, phenomenology is particularly relevant to my doctoral research as it is a philosophical foundation of eco-phenomenology, the theoretical and applied framework for my sculptural investigation of ecology and the land. A brief explanation of eco-phenomenology states “phenomenology, led by its own momentum, becomes a philosophical ecology, that is, a study of the interrelationships between organism and world in its metaphysical and axiological dimensions.”29 Heidegger’s concepts of Dasein and Sorge are specifically relevant in relation to the development of my artistic practice throughout the duration of this enquiry and will be further developed in Chapter Six of the critical review of the process of research. At present in the subsequent paragraphs, I will articulate in what ways phenomenology is an ecological philosophy when a generalized definition of ecology, the study of relationships, is applied.

It is of great historical and philosophical importance that Heidegger questioned of the meaning of being. For him, previous theoretical explanations of human existence were incomplete as they did not incorporate or explore the notion of lived experience, the “basic form of living in the world prior to the theorizing view of it by the detached

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observer.” Phenomenology, a theory of the human experience, is also a theory of the ways things present themselves, through such experience, to our consciousness. This philosophy holds experience central to understanding.

The concept of experience indicates an active engagement or encounter. It is a conscious state of alertness to one’s surroundings and circumstances. John Dewey wrote, “Experience is the result, the sign, and the reward of that interaction of organism and environment which, when it is carried to the full, is a transformation of interaction into participation and communication.” Experience then is not a passive absorption of information, of visual, tactile, or auditory stimuli. It is the transformation of the encounters with the surrounding environment into meaningful communion and awareness. Dewey described experience not as a hermetical understanding of life but as an “active and alert commerce with the world; at its height it signifies complete interpenetration of self and the world of objects and events.” This notion of experience exemplifies the nature of being, what Heidegger termed Dasein or ‘being-in-the-world.’

Informally in German, the term Dasein parallels the English word existence, however the literal translation is ‘there-being.’ Heidegger conceptually expanded the notion of Dasein to mean being-in-the-world. The term ‘world’ does not refer to “a collection of objects, but a totality of meanings and purposes within which Dasein can act and can encounter other beings.” Dasein is the human being immersed in the visible and tangible world along with the immaterial world. The description of how and what it is to be Dasein is not intended to separate or segment the conception of being-in-the-world. Ultimately, Dasein itself is a holistic and encompassing concept. There is not a separation between ‘being’ and ‘the world.’ Dasein does not indicate one thing inside another, a ‘being’ in the ‘world.’ Rather, “the hyphens… are indicative of the fact that, as Dasein, self and world

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32 Ibid., 18.
are a unity.” 34 How we are in the world, how we interact with other things and beings, and how we experience the world in our day-to-day lives is our individual notion of Dasein. We understand the nature and meaning of being through experiences of the world in which we live.

Central to Heidegger’s phenomenology, Dasein is the being that actualizes the question and nature of experience. As an alternative explanation of the human experience, it was a counter hypothesis to Edmund Husserl’s theory of the impersonal and transparent ego. It was Husserl’s pure description of phenomena, the detached object/subject interpretation of how humans relate to the world that led Heidegger to believe that Husserl’s ontology stemmed from, at least partially, a limited theoretical viewpoint. And although Heidegger regarded theoretical analysis as a valid mode of determination, he argued that “it is neither the only perspective nor one that is even capable of doing justice to the other ways in which things are given to us.” 35 He argued that scientists and philosophers mistook their determination as “the significant mode of being that underlies all entities, however, and they become guilty of suppressing the discovery of the other modes of being.” 36 Heidegger thus theorized, through phenomenology, an experiential means for knowing the nature and meaning of being. To be clear, the investigation of the meaning of being does not require “a rejection of scientific knowledge so much as an attempt to understand the relationships between scientific and pre-scientific consciousness.” 37 Beyond recognizing the dynamics between these types of consciousness, however, is the understanding that various theories together present a whole system of knowing the meaning of being. Heidegger’s research focused on the phenomenological method, as it was, in his view, a missing and vital component of an inclusive knowledge of the human experience.

36 Ibid., 58.
In *Being and Time*, Heidegger discussed the nature of experiences. He described ‘care’ as a characteristic of all our engagements with and of the world as well as other beings in the world. His notion of concern (Sorge) or care is extended from the concept of intentionality. Within phenomenology, intentionality holds that every act of consciousness, every experience that we have is intentional. Intentionality, in essence, is the consciousness of or experience of something. Our consciousness is always correlated with phenomena; it is always directed toward something. Specifically, the nature of Dasein’s intentionality is manifested as care. Heidegger believed that care, the way in which we attend to or experience phenomena, allows us to more fully understand what it is to be a being-in-the-world. Through closer scrutiny of the nature of the correlation between care, phenomena and Dasein, he wrote:

> “With its facticity, the being-in-the-world of Dasein is already dispersed in definite ways of being-in, perhaps even split up. The multiplicity of these kinds of being-in can be indicated by the following examples: to have to do with something, to produce, order, and take care of something, to use something, to give up something and let it get lost, to undertake, to accomplish, to find out, to ask about, to observe, to speak about, to determine... These ways of being-in have the kind of being of taking care of which we shall characterize in greater detail.”

*Sorge* is the root word of both words *Besorgen* and *Fürsorge*. *Besorgen* meaning concernedness “denotes comportments with other entities.” It is our concern for the things of our immediate world, the issues that affect our daily lives. *Fürsorge*, concernfulness, “denotes comportments towards other people.” The two terms are fused into one so that Dasein’s engagement to the surrounding world and other beings can be epitomized in a single conception. Concern is the nature of our engagement. The term concern, however, is not to be confused with the emotion of worry or anxiousness and often scholars term *Sorge* as ‘care.’ Doretha Frede describes *Sorge* as the “structure of care- a holistic notion that we are beings-in-the-world simultaneously part of an

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40 Ibid.
The conception of care allows us to see ourselves as a part, a whole part, in relation to the whole.

This notion of interconnectedness can be further articulated through the ways in which human beings perceive and understand phenomena. Heidegger holds that an individual phenomenon is originally perceived within the broader context of its surroundings. “In our natural comportment toward things, we never think a single thing, and whenever we seize upon it expressly for itself, we are taking it out of a contexture to which it belongs in its real context.”

Leman-Stefanovic, argues in Safeguarding Our Common Future: Rethinking Sustainable Development, that this notion of ‘functionality whole,’ holds that our experience of phenomena is not an isolated, disconnected awareness of individual things. “On the contrary, a genuine understanding of human perception recognizes that entities are perceived and interpreted as meaningful within a web of relations in which they are primordially situated.”

We not only see ourselves as whole parts in relation to the whole of the world but we also view phenomena as part of this same interconnected world. It follows from this that phenomenology can be regarded as ultimately an ecological concept as, in simplified terms, ecology is the study of relationships.

Notably, it is this generalized definition of ecology that allows phenomenology to be regarded as an ecological concept and which is fundamental to the development of my sculptural collaborations with animals inside artificially constructed habitats. Elaborating further upon the ecological discussion of phenomenology, the critical review of the process of research portion of this thesis will discuss in depth Eco-Phenomenology as a philosophy that draws on the historical precedents of phenomenology while employing contemporary ecological thinking. It is within this chapter that the practical application of the methodology will demonstrate the centrality and importance of Eco-Phenomenology,

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41 Frede, “The Question of Being”, 63.
44 In Ecology and Ecosystem Management (Washington D.C.: Island Press, 2007), Oswald J. Schmitz states that ecology is a science “aimed at understanding the processes by which living organisms interact with each other and with the physical and chemical components of their surrounding environments.”
as well as Heidegger’s concepts of Dasein and Sorge, to my artistic practice which seeks to establish a reciprocal relationship with the natural environment.
Chapter 2: Landscape Into Art

“Art is a field among others – science, nature conservation, land development, advertising, leisure – in the societal process of production, mediation, and consumption of landscape imagery.”¹ Maunu Häyrynen, Landscape Theory

Introduction

If land is raw material and landscape is ideology then a conceptual transformation occurs when land becomes landscape. Within the realm of art, the transformation is also a perceptual conversion “… where by that material [the land] is prepared as an appropriate subject for the painter or photographer, or simply for absorption as a gratifying aesthetic experience.”² The representation of landscape therefore is a two-part process: first land becomes landscape and then landscape becomes art. Chapter One explored in depth the ways in which we view, understand, conceptualize, and relate to the land through landscape theory and phenomenology – the land becoming landscape. This chapter explores artistic representations of the landscape from early Egyptian art to that of the twentieth century. This serves to establish landscape painting as a historical precedent for Environmental Art, which will be discussed in subsequent chapters of this thesis. Rather than give a complete historical account of the lengthy and complex movement, the chapter begins with a brief discussion of select Egyptian and Byzantine works of art so as to present a few of the earliest examples of the representation of landscape in art. The primary focus of the chapter then centers on the discussion of Western landscape painting through a typology of pictorial approaches introduced by Paul Zucker in Styles in Painting: A Comparative Study. In order to critically assess the pictorial approaches and thereby develop each further, I discuss each categorization of approaches through my own selection of landscape-based paintings. Extending his analysis, I argue further study of these pictorial approaches provides a visual record of an evolving relationship between humanity and the natural environment. Importantly, the final two categorizations, landscape as central theme and landscape as expression of mood are exemplified in

Romantic landscape painting, one of the foundations of Land Art. As such the remaining sections of this chapter critically assess the tenets of the sublime and the picturesque as illustrated through both Romantic landscape painting and Land Art. This analysis articulates the connections between the two genres and then serves to establish Land Art as an artistic precedent for Environmental Art. A central argument within Chapter Two proposes that the representation of landscape as the central theme in a painting, in any work of art, is ultimately the depiction of a relationship between humanity and the natural environment. I argue that this is the most significant contribution of Romantic landscape painting with regard to Environmental Art: it established the validity of an artistic genre focused solely on the various expressions of humanity’s relationship with the natural environment.

**The Representation of Landscape**
Landscape, as previously noted, evolves through a conceptual shift when the land is embedded with ideology. Visually, the ideology is then represented. The fact that landscape refers not only to ideology but also the visual representation indicates to a certain degree the complicated nature of the term. “Landscape, which has long meant either the real countryside or the pictured representation of it, is in effect the combination of the two, or the dissolving of the two together, a natural scene mediated by culture.”

“Landscape in art tells us, or asks us to think about, where we belong.” The prominence of landscape representation over the past five hundred years in the West, particularly in the nineteenth century, demonstrates the desire for clarification and articulation of the relationships between humanity and the natural world. However, our understanding of landscape has been “continuously mediated through artistic depictions and cultural representations whose perception of nature has often been partial and politically inflected.”

These visual influences, have in part, directed environmental belief systems, which in turn guide behavior and actions toward the natural environment. In these ways,

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4 Ibid, 8.
the tradition of landscape representation is an important component in the formulation of humanity’s relationship to the land.

The process of representation, the activity itself, is “… the manner in which meaning is constructed and conveyed through language and objects.” The focus of this particular thesis is concerned with how representation operates through a visual as opposed to text-based language. Specifically, this chapter discusses how images convey meaning and communicate concepts and ideologies related to the landscape. Beyond the technical process of using two dimensions to represent a three-dimensional world, the representation of the landscape is often either pictorial or symbolic. Within the field of visual art, symbolic representation uses images as types of signs, to represent abstract ideas, physical entities, functions or processes. Contingent upon shared understanding of the interpreted meaning, symbolic representation, relies upon “the expectation that when you see this picture, you will think of that meaning.” Pictorial landscape paintings function as a “flat marked surface [which] has qualities that lead us to identify it with things external to itself.”

The following section considers pictorial approaches used in the process of landscape representation. This establishes a visual record of an evolving relationship between humanity and the natural environment but subsequently provides insight into the visual process of representation.

**Landscape in Painting**

The representation of landscape was not an independent theme in painting until the late sixteenth century and was considered a lesser genre until the early nineteenth century when, through the Romantic artists, it “emerged as a principal means of artistic expression.” The role landscape had previously played was that of background décor, symbol, or merely as a descriptive element that located the narrative. “Even the Renaissance, despite its enthusiasm for nature and its interest in perspective, long

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7 Ibid., 210.
subordinated landscape to the human figure, the portrait, or the narrative sequence.”

Although da Vinci and Dürer were well known for their depictions of landscape, their investigations of the natural world were analytically, not aesthetically driven. The beauty they discovered in nature was used as a supporting structure to enhance humanity’s central role. It was ultimately artists such as Caspar David Friedrich, J. M.W. Turner, John Constable and Thomas Cole who valued the representation of the landscape as intrinsically worthwhile.

The following paragraphs discuss the typology of pictorial approaches used when representing the landscape as theorized by Paul Zucker, specifically his classifications: landscape as descriptive element, landscape as decorative background, landscape as structural aid to composition, landscape as a central theme and landscape as expression of mood. His classifications, in contrast to conventional academic classifications of landscape such as heroic, picturesque or romantic, refer to “the picture conceived as a totality, to the way it works through the artist’s visual orientation and through the way he actually organizes his material on the canvas.” The typology is centered on the function of landscape elements in painting. Approached linearly, I argue that this typology of landscape representation can be used to trace the conceptual evolution of humanity’s relationship to the natural world.

In the early narrative scenes of Egyptian wall paintings, Byzantine mosaics and medieval manuscripts, landscape was used as a descriptive element. Wavy lines represented water; trees and plants were flat shapes or fine lines. Color was formulaic; water was blue, earth was brown, and foliage was green. Natural elements within the picture plane were not used for “spatial clarification, beauty or interest in nature but to help identify the story.” The earliest representations of people in the landscape often characterized humans as dominant over the natural world. Although the map, pictured below, does not contain images of people, it demonstrates humanity’s development of and supremacy over the

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11 Ibid., 187.
land through the relative size and placement of manmade structures. In all three periods presented in the following four images, figures are the central focus of the narrative, placed on top of the scenery, not integrated into the landscape. In part, the separation of body from land is due to a lack of aesthetic development but it also fundamentally reflects the belief of man’s dominion over nature.

Interestingly, Zucker credits St. Francis of Assisi with the advent of the concept of landscape in the thirteenth century. Zucker claims that St. Francis’ intimate relationship with the natural world “encouraged an all-embracing visual sympathy which eventually led men’s eyes to dwell with understanding upon their surroundings, upon inanimate
things as well as plant life and the world of animals.” 13 If this marks a major shift in the consciousness of the time, the effects, the evolving relationship is not visually evidenced until the sixteenth century.

Toward the middle of the fifteenth century, the trend towards realism and the artistic methods for conveying perspective14 facilitated a more realistic impression of the depiction of the landscape. Although more accurately intricate, the landscape was still descriptive and secondary to the prominence of the figures. This can be seen in the Duc de Berry’s Book of Hours as the Limbourg brothers’ depiction of the landscape acts as a theatrical backdrop to the engagement scene. However in the sixteenth century, it is Bruegel’s landscapes that begin to extend beyond the descriptive approach. His composition and use of landscape elements “intensifies the psychological and social presentation”15 of the narrative scene. Notably, the visual relationship between people and landscape has evolved as a proportionally realistic representation; humanity is situated within the environment rather than allocated solely to the foreground. Bruegel’s use of perspective, sense of scale, and atmospheric light convincingly convey the harshness of winter. Nonetheless, the landscape still functions as a tool used to dramatize the hunters’ situation and their prominence, along with the ice skaters, within the composition. Ultimately, this relegates the painting to the category landscape as descriptive element.

13 Zucker, Styles in Painting, 187.
14 Webster’s Dictionary, s.v. “perspective.” Definition states perspective is the art of representing three-dimensional objects on a two-dimensional surface so as to give the right impression of their height, width, depth, and position in relation to each other; it is a theory and a practice.
15 Zucker, Styles in Painting, 188.
The variety of images presented thus far indicates the general looseness of Zucker’s typology. As the following categories are discussed, it should be noted landscape paintings can, and often do, apply more than one pictorial approach and categories do overlap. Additionally, certain artistic styles emerge earlier in various parts of the world and not every landscape painting follows the linear progression of the pictorial development of representation I discuss here. Approached broadly, however, the general trend of humanity’s evolving relationship with the natural environment can been seen through this typology.

Landscape used as *decorative background* “can be defined as an accompaniment to the human figure or figures, comparable to the obbligato in music,”16 essential but subordinate. Botticelli’s mythological scenes epitomize this approach as the figures stand in stark contrast to the background. The dark silhouetted trees form a lace-like pattern against the blue sky while the jewel-toned fruit and flowers function as ornaments instead of botanical representations. Similarly, Ghirlandaio’s delicate stylized representations of water and flora in the tympanum fresco *Baptism of Christ* serve to accent the central figures’ pious stances. The Tuscan garden depicted through the lunettes in Ghirlandaio’s

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16 Zucker, *Styles in Painting*, 188.
The Last Supper is less prominent but equally aestheticized. Flat and nearly superfluous to the iconic scene, the view could be taken for a fresco on the back wall of the room.

10. Sandro Botticelli, La Primavera, 1477-78
11. Domenico Ghirlandaio, Baptism of Christ, Sant'Andrea a Brozzi, San Donnino, c. 1473
12. Domenico Ghirlandaio, The Last Supper, 1480

Both the mythological and biblical scenes, though otherworldly and ethereal, are visually connected to everyday life through the use of landscape elements. However supplementary, the consistent role landscape plays in these compositions allows the fifteenth century citizen to discern meaning within the paintings and to correlate their own experiences. For instance, Italians may more readily empathize with Christ’s life when the background scenery mirrors their own countryside rather than the unfamiliar terrain of Jerusalem. Furthermore, the increasingly regular inclusion of landscape elements in painting implies that narrative depiction would be incomplete without the natural environment shown as integral to existence.
When landscape is employed as *structural aid to composition*, elements of the countryside are selected and arranged to support the central figures. Landscape contours, horizon lines, and the verticality of trees parallel postures of the body and are at times used to emphasize the figure’s movement. For *Madonna of the Meadow*, Raphael paints a gently curved, ochre landscape to ground the tranquil figure; the pale blue sky and background hills envelop the upper torso as a softer visual correlation of the Madonna’s shawl. In a contrasting use of landscape elements, the abrupt elevation of hills and vibrations of the dappled tree leaves mirror the intensity of the struggle in *St. George and the Dragon*.


A contemporary of Raphael, Perugino also employed similar pictorial approaches within his paintings. His use of elongated boulders in *St. Jerome in the Wilderness* not only frames but also emulates St. Jerome’s kneeling posture. Additionally, the vertical rise of the trees and St. Jerome’s upward gaze are both pictorial cues directing the viewer’s eye toward the crucifix nestled in the branches.
In a fourth example of landscape as structural aid to composition, the tree trunks in Titian’s depiction of Adam and Eve are unmistakably aligned with both the bodies and the postures. The preceding Italian Renaissance paintings portray the human body and landscape as visually analogous. The corresponding pictorial functions portray an elemental connection between the coexistence of man and nature.

_Landscape as a central theme_ “became possible only when the human figure was dispossessed from its central place and could be treated as a secondary element.”¹⁷

During the seventeenth century, landscape representation gained increasingly favorable status through the works of Rembrandt, Rubens, and Poussin. Although man or manmade elements are represented, they are, in a reversal of roles, subordinate to the landscape. The natural world was presented as intrinsically significant, without the previous requirement to function as humanity’s descriptive, decorative, or structural background. The landscape painter of this era “composes colors and forms out of his visual experience, without preconceptions, and so describes the earth we tread as molded by the

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¹⁷ Zucker, _Styles in Painting_, 189.
same primary force that shaped the spirit of man.”\textsuperscript{18} The portrayal of the relationship between humanity and the natural environment has evolved from visually analogous to conceptually analogous. Humans and the land are corresponding parts of a collective whole.

Finally, there is no absolute delineation between the categories \textit{landscape as central theme} and \textit{landscape as expression of mood}; dramatic compositions, bold atmospheric light, and the centrality of landscape are shared characteristics of both categories. However, there is a slight distinction in that landscapes depicted as mood tend to overwhelm the figures, either physically or emotionally. Turner’s \textit{Life-Boat and Manby Apparatus} and Friedrich’s \textit{Woman Before the Rising Sun} are representative examples of

\textsuperscript{18} Zucker, \textit{Styles in Painting}, 190.
paintings that use both pictorial approaches but tend toward the illustration of landscape as an embodiment of emotions. With regards to emotional intensity, however, what one viewer may respond to in a painting could be read as emotionally neutral by another. Furthermore, “it is impossible to say just how much of a mood is read into a picture by the spectator and how much emotional value was intentionally placed on the canvas by the artist’s organization of paint and composition.” 19 Many theorists have written extensively to the nature of intentionality. However, an in depth discussion in relation to this research would be inappropriate except to quote David Best in his article, “Intentionality and Art.” He states that,

“it is the interpretation of the work of art which logically determines the character of the response to it. This ineliminable cognitive element, the grasping of the significance of the objective features of the work under a certain description, is the particular intentional object of, and therefore defines, the feeling it expresses, and which is experienced in response to it. A work of art is of highly particularized emotional content in this sense.”20

Zucker’s classification landscape as expression of mood unfortunately limits the representation of landscape within this category to a personification of human emotions. Although Zucker places many Romantic landscape paintings in this category, the Romantic intentions were more complex than only the expression of mood; they were reflective of the varied relationships that existed between humanity and the natural

19 Zucker, Styles in Painting, 190.
environment. Though by no means a comprehensive assessment, three significant themes emerge during the Romantic landscape era. They are: ‘humanity in relation to powerful natural elements’ as often depicted by J.M.W. Turner and ‘humanity’s transcendent experience in the knowledge of ‘raw’ nature,’ as often depicted by Friedrich. Such themes in landscape painting are typically described in reference to the Sublime. The third significant theme is ‘humanity’s harmonious relationship with nature’ often presented in the pastoral landscape and referred to as the Picturesque, as depicted below in Gainsborough’s *A Wooded Landscape* and Cole’s *The Pic-Nic*.

In the nineteenth century, Landscape Representation’s establishment as an independent artistic genre can be attributed to the proliferation of renowned artists depicting the landscape. It can also be attributed to the expression of new perspectives of the natural world that are detailed in the following section, through the use of the pictorial approaches *landscape as central theme* and *landscape as expression of mood*. Focused solely on the various expressions of humanity’s relationship with the natural environment, Romantic landscape painting ultimately paved the way for Environmental Art, a contemporary manifestation of the representation of landscape.

**Romanticism**

Rather than a comprehensive overview or analysis of the Romantic Movement, a brief discussion should be sufficient to convey Romanticism’s important influence on a contemporary understanding of landscape. Emerging around the end of the 18th century,
Romanticism was born out of disillusionment with the Age of Enlightenment, in opposition to overly sterile rationality and economic materialism. It was an international philosophical and artistic movement that consciously sought to transform all artistic endeavors in practice and theory and to reconfigure relationships between the individual, nature, and society. Far from being a homogenous movement, “… there is a plurality of Romanticisms which must be recognized because the Romanticism of one country and one period may have little enough in common with that of other countries.” A comparison of Delacroix’s *Liberty Leading the People*, Friedrich’s *The Wander Above the Mist* and Cole’s *The Oxbow* is one indication of the disparateness of Romantic painting. However Romantics in general, from poets and painters to musicians, sought immersion in the excesses of sensation and “believed passionately in the importance of the individual and the personal, and of the value of their own experiences of the world.” They “tried to live life to the full, to experience it deeply and intensely, immediately, through the passions of the senses, and willingly risked self-destruction in the process.” Romantics, through interests in the occult, astrology and mysticism sought to present an alternative understanding to the scientific explanation of humanity’s position within the natural world. Romantic literature and visual art, particularly landscape painting, emphasized emotions over reason, senses over intellect and encouraged a deep appreciation and awe of the beauty and power of nature. It viewed imagination, knowledge of the sublime and engagement with the wilderness as a vehicle for transcendent experience and spiritual truth.

During the Romantic era the arts were both greatly influenced by and influential in the transformation of contemporary ideologies. “For the first time in Western thought, aesthetics moved from the periphery to the center of philosophical systems, and the meaning and purpose of the arts were more profoundly questioned than ever before.” Janson argues that this contributed to Romantic painting’s lasting legacy. He states, of the

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23 Ibid.
three principal artistic disciplines, “painting remains the greatest creative achievement of Romanticism in the visual arts precisely because it was less dependent than architecture or sculpture on public approval.”25 Romantic painting had the strongest ties with literature of that era, expressing visually the heroic struggle, emotional intensity and the grandeur of nature. Despite the importance and influence of painters such as Goya, Géricault and Delacroix depicting the social and political circumstances of their time, landscape representation, owing much to the cult of nature, became the most recognizable form of Romantic art.

**Romantic Landscape Painting and Land Art**

Having considered Romantic landscape painting’s establishment of landscape representation as a valid artistic genre, in the following section I discuss three significant Romantic themes of the late 18th and 19th centuries. I also examine those themes as they later appear in Land Art. The themes of awe, spirituality and idealized connectivity realized through the sublime and the picturesque, are shared characteristics in vision, not medium or execution. Although nearly a century and a half apart, both genres convey similar interpretations of humanity’s relationship to the landscape.

Although Land Art is thoroughly investigated in Chapter 3, I will offer a brief historical account of the genre before establishing the parallel connections to Romantic landscape painting. Land Art covered a period of time approximately from Richard Long’s first landscape intervention, *A Line Made by Walking* in 1967 to Walter de Maria’s monumental earthwork, *The Lightning Field* in 1977. Notably, it was a small group of American and British Land artists including Robert Smithson, Michael Heizer, Nancy Holt, Andy Goldsworthy, Hamish Fulton, Alice Aycock and James Turrell among others, that revolutionized landscape as a theme in art. Their interest in landscape shifted from pictorial representations of the land to an active engagement with the natural environment. For the Land artist, “idea, process, and experience are prioritized over objecthood.”26 Kastner and Wallis in *Land And Environmental Art*, write, “Land art projects are fundamentally sculptural (in the sense of creating in three dimensions) and/or

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performance-based (in terms of their orientations towards process, site and temporality). They are concerned with the way both time and natural forces impact on objects and gestures; at once critical of and nostalgic for the notion of the ‘garden’; are alternately aggressive and nurturing towards the landscape.”

Land Art, also called Earth Art or earthworks, was realized in a multiplicity of ways, from minimalist interpretations to ephemeral interventions. Notably, Land artists were unified through the central investigation of land and humanity’s response to and activity within it. Importantly, Land Art represents a time of “extraordinary innovation and sees the creation of what are literally, new forms of landscape art, as well as the re-assessment of long-established ways of thinking about landscape, nature and art, and the opening up of a whole new field of activity for art.”

The Sublime and the Beautiful

In 1757, Edmund Burke published *The Philosophical Enquiry into the Origin of our Ideas of the Sublime and the Beautiful* in which he discussed the aesthetic function of the beautiful and the sublime. Burke discusses the sublime in contrast to the notion of beauty noting at a basic level the difference of “one, being founded on pain, the other on pleasure.” He attributed the beauty of objects to particular qualities: smallness, smoothness, delicacy, gradual variation in form, and lastly, clear, bright, soft colors. In contrast, the sublime could be characterized by massive forms, vast space, dark and gloomy atmosphere and rugged angular lines. In Burke’s estimation, the sublime evokes in us the strongest emotion the mind is capable of feeling. “The passion caused by the great and sublime in nature, when those causes operate most powerfully, is astonishment; and astonishment is that state of the soul, in which all its motions are suspended, with some degree of horror.”

Developing Burke’s notion of the sublime, Kant explained it as the indication of what cannot be represented. He wrote the sublime “is to be found in a formless object, so far as in it or by occasion of it boundlessness is represented, and yet

29 Ibid., 132.
its totality is also present to thought.”

Maintaining the absolute greatness of the sublime in thought alone, Kant wrote that it is “not the Object, that is to be called sublime.”

Similarly to Burke, Kant differentiated between the beautiful and the sublime, not in terms of physical characteristics but with regards to the intellect’s aesthetic experience. “The mind feels itself moved in the representation of the Sublime in nature; whilst in aesthetical judgments about the Beautiful, it is in restful contemplation.”

**The Sublime in the Representation of the Landscape**

With regard to the representation of the landscape, the sublime, is implemented to convey both ‘humanity in relation to powerful natural elements’ and ‘humanity’s transcendental experience in the knowledge of ‘raw’ nature.’ A Romantic artist, Turner’s paintings fall into the former category. *The Shipwreck*, Snow Storm: Hannibal and his Army Crossing the Alps, and Snow Storm- Steam-Boat off a Harbor’s Mouth are all quintessential depictions of the sheer force and destructive potential of the natural elements. Humanity’s position is relatively insignificant in relation to in its environment especially “when compared to the monolithic solidity and epic grandeur of a landscape such as the Alps.”

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32 Ibid, 79.

33 Ibid, 82.

34 Upstone, *Sketchbooks of the Romantics*, 42.
The first generation of Land Artists also used the sublime to position humanity in relation to powerful natural elements. Michael Heizer’s earthwork, *Double Negative*, consists of two trenches 1,500 feet long, 50 feet deep, and 30 feet wide cut into the eastern edge of the Mormon Mesa in Nevada. The relation between the human body and the land echoes the proportions found in Turner’s paintings, but Heizer has created the relationship three dimensionally, in real time. Walter de Maria’s *The Lightning Field* is comprised of 400 stainless steel poles installed in a grid measuring one mile by one kilometer. Although it can be experienced without the presence of lightning, the intention of the work is to manifest the electrical charge between sky and ground. The use of lightning in artwork, not the representation of it, evokes a visceral as opposed to intellectual terror.

In evoking the sense of terror, the sublime functions largely through the use of scale. James Turrell’s *Roden Crater*, remote and isolated in the Arizona desert, employs scale in a monumental way through location as well as the relative size of the observatory situated inside an extinct volcano. Scale is used not only to relate the human body to the land but also the human being in relation to the universe. Turell says of his work, “the Roden Crater project will bring the light of the heavens down to earth, linking visitors with the celestial movements of planets, stars and distant galaxies.”

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Although Richard Long’s practice stands in stark contrast to the American Land artists’ works, he also employs the sublime through the use of scale. A ‘walking artist’, Long creates interventions in the landscape based on extended journeys. The documentation of the walk, *A Line in the Himalayas*, records a line of white stones extended toward horizon. Viewing this image, one simultaneously feels the vastness of the mountain range and the isolation of the journey. For these artists employing the sublime, humanity is presented in relation to powerful natural elements; the work “is arguably a rejection of transcendence through pragmatic intervention, such as changes made to the landscape by means of techniques from the construction or mining industry-pouring, cuts, and so on.”

Richard Long’s work can be viewed as a contemporary expression of the sublime.

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Within the Romantic and Land Art movement there were also a number of other artists who made use of the transcendent potential of the sublime. Romantics “believed that the inherent sanctity of nature had a purifying and uplifting effect” and saw God’s divine laws evident within ‘untouched’ wilderness. The transcendent Romantic response to nature was an encounter with the self that lead to awareness of the infinite and the Divine. Specifically, for Friedrich “the study of nature, God’s creation, was a religious act.”37 His paintings conveyed the deep spirituality he experienced in the natural world and typical of the Romantic longing, conveyed “the melancholy gulf which lies between this perfection and the temporal life of humanity.”38

Similarly, Ana Mendieta created work through encounters with the natural environment as a means to access the spiritual and transcendent potential of nature. Coming from an explicitly feminine perspective, Mendieta used her body to create a series of work she called ‘earth body art.’ She wrote of her work, “I am overwhelmed by the feeling of having been cast from the womb (nature). My art is the way I re-establish the bonds that tie me to the universe.”39 By integrating her body into the earth, as either a mound or a cavity, she visually and physically established a union with the landscape. This particular body of work created by Mendieta’s is profoundly spiritual; “she experiences the body as a sacred space: a kind of cathedral in which consciousness can soar.”40

37 Vaughan, Romantic Art, 151.
38 Upstone, Sketchbooks of the Romantics, 184.
Although German sculptor Wolfgang Laib, is not technically considered a Land artist in the historical sense, I have included his work as part of this discourse because his practice is land-based and also explores the transcendent potential of encounters with the natural environment. He creates installations with organic materials such as beeswax, milk, marble and notably pollen. Collecting pollen by hand from pine trees, marigolds, and hazel shrubs, the artist then painstakingly sifts it on to the floor of a gallery. Laib explains that it “has an incredible color which I could never paint, because it is far beyond myself, also much more than myself. It is not a pigment and not a 'natural' pigment either, like the sun is not a yellow circle and the sky is not a blue painting.”

Laib’s engagement with the natural world and then again within the gallery is meditative and evokes a similar stillness and quietness in the viewer. For Laib, “art is an act of participation – participating in nature and sharing that experience with others. Laib’s works are not merely visual experiences; ultimately they are meant to contribute to social and spiritual change.”

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The Picturesque in Landscape Representation

With his publication *Three Essays: On Picturesque Beauty, On Picturesque Travel, and on Sketching Landscape*, Reverend William Gilpin defined the picturesque as “worthy to be included in a picture.”[^43] The description was to be conceptually situated between Burke’s classifications of the sublime and the beautiful. Romantic picturesque paintings were views of the rural countryside, tranquil country life, quaint cottages, and farmers herding sheep or tilling the land. All these pastoral scenes were glorified versions of humanity’s harmonious union with the land. With the advent of the Industrial Revolution, “when the old world of the rural communities and farming methods that had remained unchanged for centuries were beginning to disappear, … a consciousness arose that lead artists to paint idealized celebratory views of the land and the people that toiled upon it.”[^44] Both English Romantic painters, the works of Palmer and Constable epitomized the picturesque in landscape representation.

[^43]: Upstone, *Sketchbooks of the Romantics*, 120.
[^44]: Ibid, 137.
The site-specific works of Land artists Andy Goldsworthy, Alfio Bonanno, and Patrick Dougherty are examples of the contemporary picturesque. Through organic matter they employ the formal artistic elements of color, texture, line, shape, value and form. The works are ecologically and visually balanced and harmonious.

The mutual picturesque characteristics of Romantic and Land Art extend beyond the pictorial qualities into the conceptual. Both movements present a constancy of time. The pastoral images of the Romantic era were static and “though the seasons revolved, and life cycles moved from decay to renewal, there remained a sense of continuity and pattern that amounted to a principle of stability”\(^{45}\) within these paintings. Similarly, Land Art communicates permanence. The ephemeral nature of the work embodies and represents a continual cyclical time and therefore communicates that life is eternal. Also comparable

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\(^{45}\) Andrews, *Landscape and Western Art*, 220.
to the idealized portrayal of rural life in the mid-nineteenth century, Picturesque Land Art presents only the beautiful and the harmonious within the landscape.
Chapter 3: Landscape Representation Transformed

“What began as a relatively isolated episode in the great deserts of the American West has expanded into a wide-ranging phenomenon – now more commonly know as ‘environmental art’ - with ambition to articulate, even to shape, the contemporary relationship to nature.”

John Beardsley, *Earthworks and Beyond*

Introduction

Chapters One and Two have explored the correlation between humanity’s relationship to the natural world and the representation of the landscape. Chapter Three, *Landscape Representation Transformed*, further evaluates the visual and conceptual evolution of this relationship through the analysis of Land Art and Environmental Art. This chapter begins with the critical assessment of the differences between the terms representation and presentation. It then discusses Land Art as the starting point for Environmental Art and the genre that revolutionized landscape as a theme in art. I review Land Art beyond its expression of the sublime and the picturesque as introduced in the previous chapter. The philosophies, intentions and works of select first generation American Land artists are contrasted to the parallel but vastly different movement of the British Land artists. Specifically, I detail how the genre of Land Art transformed landscape representation within, as well as outside, conventional exhibition spaces. I then discuss the works of the first Environmental artists, whose practices engaged with the landscape “with an activity meant to remedy damage.” Although Land Art began to restore the viewer’s attachment to the landscape with indoor installations of organic material, I argue that it was Environmental Art that ultimately transformed humanity’s relationship to the natural environment.

Representation and Presentation

In the previous chapters the argument has been posed that land becomes landscape through a conceptual process and it is the ideology of that process that is then represented in art. This suggests that landscape representation is an abstraction of nature, a social and

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historical construct. Malcolm Andrews argues that the “process terminates in what is perceived as a profound distinction – ‘art’ and ‘nature’.” Furthermore, the creator and viewer of the representation are detached observers of, as opposed to active participants in, the natural environment. Extending Andrews’ notion, I argue landscape representation creates delineation between ‘art’, ‘nature’, and ‘artist’ as well as ‘art’, ‘nature’ and ‘viewer’. The separation of self from nature, through the process of viewing or creating landscape representations, influences the ways in which humanity often relates to the natural environment. Specifically, traditional landscape representation removes the living experience of the land, which engenders detachment from one’s surrounding environment.

With the advent of Land Art and Environmental Art, the organic media of sculpture and indoor installation transformed the viewer’s traditionally held perception of the representation of landscape. In *As Eve Said to the Serpent: On Landscape, Gender, and Art*, Rebecca Solnit states “Using substance to convey meaning replaces representation with presentation, and much as representation is about what is absent, about lack, substance as a vehicle of meaning is about what is present, about presence.” My interpretation of Solnit’s use of the term substance is that it is equivalent to the term organic matter. Importantly, Solnit’s statement prompts a critical consideration of the differences between representation and presentation within an artistic context. It also addresses the potential of organic media to effectively communicate humanity’s relationship to the natural environment.

Stuart Hall writes that representation “is the embodying of concepts, ideas and emotions in a symbolic form which can be transmitted and meaningfully interpreted.” The key

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4 Webster’s Encyclopedic Unabridged Dictionary of the English Language. s.v. “medium.” Medium is “the material or technique with which an artist works.” Medium is a vehicle for expression or meaning as when it is used in the creation of artwork such as sculpture.
6 Discussed further in length in Chapter 5, ‘Organic’ is defined as “characteristic of, pertaining to, or derived from living organisms.” For the purposes of this doctoral research, organic medium, or the plural organic media, is the implementation and use of materials derived from or characteristic of living organisms.
word in that definition is symbolic. A representation symbolizes; it is a thing that stands in for something else. A painting of the landscape is not the landscape itself, but a pictorial representation of it. I believe that sculptures created with organic matter designated as organic media more effectively communicate concepts related to the natural environment than the pictorial representations of paintings and photographs. Organic media simultaneously represent concepts related to the landscape and the natural environment and notably, are derived from what they represent. They are the “state or fact of” elements of the landscape being present within an artistic context. In this way, organic media are precisely correlated to the natural environment and are exceptional in communicating humanity’s various relationships to the natural environment.

Conversely, the use of oil paints, watercolours or photography to depict the landscape produces imitations of the natural world. The representation of landscape in paintings and photographs uses two dimensions to represent a three-dimensional world. This has the effect of abstracting and flattening the land despite skillful use of perspective, foreshortening and lighting techniques. Similarly, a photograph like a painting of the landscape is also an object materially removed from its subject matter. A photograph of the landscape is separated from the land through a complex process of framing, exposing, developing and printing.

In Landscape Theory, Jennifer Jane Marshall succinctly compares the ways in which objects and paintings can convey meaning:

“In my work as an art historian, I think about how objects ‘mean.’ Writing histories of sculpture, design, and museum display, I reckon with how objects communicate meaning in ways that are very different from the signifying operation of paintings or pictures. In fact, if two-dimensional images seem to relish their inherent abstraction as a sign for something else, things fascinate me because they can always take the low road of representational identity: standing for nothing other than themselves.”

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8 Webster’s Dictionary, s.v. “presence.”
In the context of visual art, matter designated as organic media are the physical presence of elements of the landscape. It follows that a central or significant position of organic media within sculpture or installation also designates, as the artwork’s primary subject matter, humanity’s relationship to the natural environment. Multiple interpretations of this relationship may be articulated through the *presentation* of elements of the landscape. As I will discuss, a viewer is connected to the landscape in the experience of artwork created with organic matter designated as material; first through visceral encounters of smelling, bodily navigation, often times touching and then through biological recognition. It is, however, the alteration of form, character or substance of the organic matter that allows the substance to become organic media and ultimately a vehicle for meaning. The media retains a reference to the natural environment but assumes a new significance when presented as sculpture or installation. It is the altered form embedded with significance that distinguishes direct contact with sculptures and installations from the experience or engagement of landscape out of doors.

In the following section, I will discuss how landscape as a theme in art was revolutionized in the late 1960’s and early 1970’s by a small group of American and British Land artists. Their interest in landscape shifted from pictorial representations of the land to an active engagement with the natural environment. For the Land artist, “idea, process, and experience are prioritized over objecthood.”¹⁰ Land Art, as I will explain, transformed the representation of landscape and began to restore the viewer’s attachment to the landscape. Ultimately, however, it is Environmental Art that will reconfigure the viewer’s relationship to landscape representation and thus humanity’s relationship with the natural world.

**The Significant Influences on Land Art**

Land Art emerged out of the 1960’s, a time of cultural and political instability and revolution. The United States was divided in its reactions to the American Civil Rights Movement and to the country’s involvement in the Vietnam War. The turbulence of the decade was evidenced in unprecedented anti-war protests, civil rights demonstrations and

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race riots. The assassinations of two prominent civil rights activists Dr. Martin Luther King, Jr. and Senator Robert Kennedy contributed greatly to the anger, unease, and violence experienced by Americans in the 1960’s. However, the unrest was not limited to the United States. It also permeated Europe, and as such, the lives of Europeans were affected by considerable instability. Specifically, Europeans were threatened by the Cold War and the plausibility of a global nuclear war in addition to internal riots, protests, and student uprisings, which affected the social and political atmosphere. The May 1968 protests in France were started by a group of university students who were influenced by a group of anti-establishment revolutionary artists, the Situationists. The demonstration against civil inequality and the reigning government of President Charles de Gaulle began in Paris as a one-day general strike of 800,000 participants. It eventually became a 10 million-worker strike throughout France that effectively disabled the country for two weeks. Also throughout Europe, dissidence and demonstrations transpired in opposition to the Russian invasion of Czechoslovakia that ended the liberal government reforms known as the Prague Spring. The 1960’s were a period of transformation, not only for civil and political rights, but also for gender equality, environmental conservation and the exploration of space. Culturally, the second wave of Feminism, the International Space Race, and the landing of the first man on the moon radically changed Western society.

Environmental consciousness evolved with the publication and dissemination of Rachel Carson’s critically important book *Silent Spring*. Growing awareness and concern for the state of the environment was in part responsible for the attendance of the first Earth Day celebration held in 1970. A tribute to grassroots movements and previous nonviolent demonstrations, 20 million people across the United States rallied for this single cause that ultimately helped to introduce environmental concerns into the political arena. Additionally, the subculture of the Hippie movement, which advocated change on social and political levels including civil rights reform, the women’s liberation movement and the end of the Vietnam War, was also responsible for raising environmental awareness. The hippies extended the concept of peace to living in harmony with the natural environment and their large cultural influence in the United States and subsequently other parts of the world, helped to further the causes of environmentalism. The influence of the
hippies includes the founding and establishment of Greenpeace\textsuperscript{11}, “an independent, campaigning organization which uses non-violent, creative confrontation to expose global environmental problems, and to force the solutions which are essential to a green and peaceful future. Greenpeace's goal is to ensure the ability of the earth to nurture life in all its diversity.”\textsuperscript{12} The hippies are also credited with the creation of the notions “reduce, reuse and recycle,”\textsuperscript{13} which are now implemented worldwide and notably, are advocated by the United States Environmental Protection Agency (EPA), a government body that protects and manages the environment. The historical, political and cultural contexts of the 1960’s greatly affected the ways in which artists interpreted humanity’s relationship to the natural environment. Ultimately, “Land Art reflected the socio-cultural conditions of its time. It originated during a period of conflict, a time that embodied a paradox of idealism and trauma.”\textsuperscript{14} The radical cultural and political transformations also shaped the broader consciousness of that time and had considerable influence on how Land Art was perceived and understood by viewers.

Kastner and Wallis in \textit{Land And Environmental Art}, write, “Land art projects are fundamentally sculptural (in the sense of creating in three dimensions) and/or performance-based (in terms of their orientations towards process, site and temporality). They are concerned with the way both time and natural forces impact on objects and gestures; at once critical of and nostalgic for the notion of the ‘garden’; are alternately aggressive and nurturing towards the landscape.”\textsuperscript{15} Land Art, also called Earth Art or earthworks, was realized in a multiplicity of ways, from minimalist interpretations to ephemeral interventions. Notably, two artistic movements that had considerable influence on Land Art were Minimalism and Arte Povera. Minimal Art, typically painting or sculpture, reduced artworks to essential elements through the use of geometrical forms, monochromatic palettes of primary colors and through the emphasis on anonymity of

\textsuperscript{14} Tufnell, \textit{Land Art}, 13.
\textsuperscript{15} Kastner and Wallis, \textit{Land and Environmental Art}, 12.
style. “Aesthetically, Minimal Art offers a highly purified form of beauty. It can also be seen as representing such qualities as truth (because it does not pretend to be anything other than what it is) order, simplicity, and harmony.” Minimalism was historically important and influential with regard to Land Art, “because it substantially changed what art could look like, how it could be made and what it could be made from.” Many Land artists were arguably influenced by the simplicity of the geometric patterns found in Minimalism as well as the reconfiguration of the traditional art object in relation to traditional exhibition settings.

The other movement that had significant influence on Land Art was Arte Povera. The term Arte Povera, translates as ‘poor art’ or ‘impoverished art’ and was introduced by art critic and curator Germano Celant to reference the art of a dozen or so Italian artists working in the late 1960’s. The term ‘poor’ was meant as a distinguishing characteristic of these artists’ practice, specifically their rejection of traditional ‘precious’ artistic materials such as bronze, marble and oil paints, in favor of commonplace materials such as rope, earth, rocks, paper and clothing. However, not all Arte Povera artists created sculpture or paintings, some works were realized through installation and performance. Most notably however, Arte Povera artists were united “in their mission to reconnect life with art, [and] strove to evoke an individual, personal response in each of their pieces, stressing an interaction between viewer and object that was unrepeatable and purely original.” The emphasis on the relationship between the viewer and artwork, as well the use of organic materials, were both important influences on the Land art movement.

Despite the differences in their conceptual interrogations of Minimalism, Modernism and Conceptualism, Land artists were unified through the central investigation of land and humanity’s response to and activity within it. Aside from the diversity of expressions of Land Art, it was the genre as a whole that transformed landscape representation.

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18 Notably, Robert Smithson’s _Spiral Jetty_ and Michael Heizer’s _Double Negative_ pictured and discussed in the following section, are two archetypal examples.
Furthermore, as Tufnell states, “the revolutionary character of Land Art is revealed when
one considers that it is an essentially sculptural genre and yet there is no existing Western
tradition of landscape sculpture.”

**American Land Art**
The approaches and intentions of the early American and British Land artists were vastly
different. “The early wilderness-colonizing efforts of the first generation American Land
artist actually paralleled the ideas of conquest and exploitation that characterized the
industrial era.” The land was artistic material to be utilized, manipulated, shaped, and
dominated at the will of the artist. Removed from any inclination towards environmental
conservation or protest, Michael Heizer, creator of *Double Negative* discussed in Chapter
Two, said of his practice “I work outside because it’s the only place where I can displace
mass. I like the scale.” Throughout his career Heizer continually rejected any connection
with idealized notions of humanity’s relationship to the landscape; he discussed his
projects in terms of formal characteristics and the statistics of construction.

Robert Smithson, another prominent Land artist, was interested in quarries not only
because of the exposed geological layers of earth but for the cultural implications of the
site. He “was fascinated by the way in which the landscape is marked by man’s use of
it” and viewed humanity’s physical interventions as part of a wholly natural process.
Specifically, he viewed the quarry site as the embodiment of entropy, a critical aspect of
living experience and existence. Set in the Great Salt Lake in Utah, *Spiral Jetty* is fifteen
hundred feet long, fifteen feet wide and is constructed from 6,650 tons of rock and soil. It
is a constructed giant spiral of black basalt boulders and soil surrounded by salt water that
is tinted a reddish hue by micro bacteria. Due to the extreme salinity of the water, white
salt crystals have over time encrusted the boulders. For Smithson, the crystallization of the
earthwork took on symbolic significance. He states, “each cubic salt crystal echoes the

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20 Tufnell, *Land Art*, 16.
21 Kastner and Wallis, *Land and Environmental Art*, 16-17.
23 Tufnell, *Land Art*, 32.
Spiral Jetty in terms of the crystal’s molecular lattice. Growth in a crystal advances around a dislocation point, in the manner of a screw. The Spiral Jetty could be considered one layer within the spiraling crystal lattice, magnified trillions of times.”

Smithson created art through the use of the elements of the landscape. Meaning was elicited from the juxtaposition of materials, basalt, water, micro bacteria, and salt crystals; much the same way as a painter would use color on canvas to depict a landscape.

Land Art such as Heizer’s Double Negative and Displaced/Replaced Mass, and Smithson’s Spiral Jetty and Broken Circle Spiral Hill, epitomized the American Land Art movement in scale, isolated location, and displacement of land through heavy machinery. Their genre “was one of diesel and dust, populated by hard-hat-minded men, finding their identities away from the comforts of the cultural centre, digging holes and blasting cuts through cliff sides, recasting the land with ‘masculine’ disregard for the longer term.”

**British Land Art**

The corresponding British Land Art movement was more gentle, ephemeral and nature-based in practice. Artists Richard Long, David Nash and subsequently Andy Goldsworthy investigated notions of collaboration with natural processes and materials. As I have already discussed Goldsworthy’s work in terms of the picturesque, I will now discuss one of David Nash’s better-known outdoor sculptures so as to illustrate the durational and ecological character of many British earthworks. Through a concentrated focus on planted projects, David Nash has created Ash Dome, a ring of twenty-two ash trees, guided and fletched using traditional husbandry techniques. “The form symbolizes the interaction of nature and culture as well as creating a meditative chamber.”

Ash Dome is a living sculpture that continually evolves as the trees mature and grow into each other. The maturation of the trees and Nash’s artistic engagement are equally vital in the development and realization of the project. Although an intervention into the landscape, Ash Dome is integrated into the surrounding forest. Nash’s approach reflects an artistic

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26 Tufnell, *Land Art*, 90.
practice that is less interested in the displacement of mass on a monumental scale and more interested in creating artwork in conjunction with living processes.

British Land artists, Richard Long and Hamish Fulton’s practices are both based on walking as a bodily engagement with the natural world. As I have discussed Long’s work previously, I will simply include a statement regarding his artistic practice as he clearly situates his work in contrast to Smithson’s and Heizer’s artwork. Long states: “My interest was in a more thoughtful view of art and nature, making art both visible and invisible, using ideas, walking, stones, tracks, water, time etc, in a flexible way… It was the antithesis of so-called American ‘Land Art,’ where an artist needed money to be an artist, to buy real estate to claim possession of the land, and to wield machinery. True capitalist art.”

Long’s statement is representative of the environmentally conscious approaches used by British Land artists and stands in stark contrast to the approaches implemented by a majority of American Land artists.

Fulton’s practice, unlike Long’s, left no mark on the landscape. Through extended walks, sometimes without sleep, sometimes through extreme climates and conditions, Fulton explores the transformative potential of mind and body through encounters with the

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natural environment. He states, “My work is a symbolic gesture of respect for nature.” The evidence of the walk exists temporarily in the physical strain and stress the body endures, in the artist’s memories and thoughts, and through photographs and textual work he produces for gallery exhibitions.

Fulton’s documentation and text-based works are inadequate substitutions for the experience of being in the landscape. That is precisely where their importance and influence lies. They are not illusions or recreations designed to communicate Fulton’s walk; the images provide just enough information and visual stimulation to incite the viewer to embark on their own journey. This dimension of his practice and artwork has been a strong influence on my own work. Like Fulton’s work, my sculptures are not solely representations designed to communicate my experience with the landscape. Founded on the principles of ecology, my sculptures are models for engaged and informed interaction with the natural environment, for artists as well as for the layman. In conclusion, Fulton’s artistic practice is a transformation of a traditional artist’s engagement with the landscape. However, more importantly, it was Fulton’s exhibited artwork that began to restore the viewer’s attachment to the landscape.

The Transformation of Landscape Representation
Other expressions of Land Art in the 1960’s and 1970’s installed indoors relied on the visceral experience and juxtaposition of organic materials within the gallery setting to transform the viewer’s traditionally held perception of the representation of landscape to an experience of landscape as art. Artists such as Andy Goldsworthy, Walter de Maria,

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David Nash, and Richard Long, in addition to creating work outside, created work within gallery settings. De Maria’s *The New York Earth Room* designated 140 tons of earth as artistic material and the primary component of an indoor installation. Nash also made use of traditional exhibition spaces as he installed sections of enormous felled tree trunks indoors. Both uses of landscape elements as materials overwhelmed the interior spaces through sheer mass and pungent smell. In an additional manifestation of indoor/outdoor duality, Goldsworthy and Long constructed large but simple geometric forms with stones or twigs.

At a certain level, interaction with these installations is involuntary. The initial encounter of the artwork’s smell is an automatic bodily reaction. The sense of smell, similar to hearing, is a physical perception one must consciously choose to ignore. Furthermore, as the earthwork installations were often proportionally very large in relation to the interior spaces, a person had to physically navigate the space around work. The role of the passive viewer had been shifted to a role of active participant through the increased bodily interactions of navigation as opposed to walking from painting to painting within a gallery, the involuntary reflex of smell as well and the increased potential that a viewer would touch\(^\text{29}\) the organic media of the installations.

\(^{29}\) At an exhibition in September 2008 at the Irish Museum of Modern Art, titled *Exquisite Corpse* I witnessed many visitors touching a Richard Long installation similar to *Stone Line.* I believe visitors to a museum would rarely if ever touch a landscape painting, but that the hesitation is removed with regard to organic materials.
The impact of the avant-garde earthworks was felt within the art institution as well. These installations created from ephemeral materials, in theory, could not be sold. The work ultimately questioned the role of art object as material commodity. Land Art additionally questioned the validity of the commoditization humanity’s relationship to the natural environment through landscape representation.

The early ‘earthmovers’ such as Michael Heizer and Robert Smithson broke with art-making and exhibiting traditions by creating large-scale sculptural work with heavy construction equipment outside conventional exhibition spaces. The work, located in remote regions of the American West, existed only in the landscape and could only be experienced in a precise location. “Location and sculpture are thus absolutely and irrevocably intertwined. In Heizer’s formulation, the work is not in the place; it is the place.”

Because the work could not be transported and because “such experiences cannot readily be translated into other media,” this expression of Land Art was inaccessible to the vast majority of the public. Thus, these works had a lesser impact in restoring the viewer’s attachment to the landscape. To be sure, Smithson and Heizer’s engagements with the land were alternative and revolutionary artistic roles. Their practices forever changed the potential limits and methods available to artists representing the landscape.

47. Robert Smithson, a photograph of the construction of Spiral Jetty, (note the dump truck at the end of the spiral), 1970

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Tufnell, Land Art, 48.

Ibid.
Additionally the non-commercial earthworks located beyond the access of the general public were, in part, anti-establishment gestures directed towards the art world. Breaking from traditional art making methods and exhibition practices, the works could be viewed as independent from the museum and gallery systems. Ironically, however, it was established artists, represented by galleries and financially supported by patrons, who executed many of these works and who were ultimately still bound to the contemporary art world. It was in this way that “the early earthworkers both continued the progression of long-established art historical legacies and broke dramatically from them.” As the beginning point of Environmental Art, Land Art covered a period of time approximately from Richard Long’s first landscape intervention, *A Line Made by Walking* in 1967 to Walter de Maria’s monumental earthwork, *The Lightning Field* in 1977. Land Art represents a time of “extraordinary innovation and sees the creation of what are literally, new forms of landscape art, as well as the re-assessment of long-established ways of thinking about landscape, nature and art, and the opening up of a whole new field of activity for art.”

**Environmental Art**

The British Land artists I have discussed, as well as other European landscape-based artists such as Giuseppe Penone, herman de vries, and Hans Haacke, developed practices that engaged with the landscape beyond its material potential. Their processes for creating art were ephemeral interactions, transient engagements, and had minimal if any environmental impact. It was these artistic practices, over those of the American Land artists’ that laid the foundations for the environmentally based practices of the late 1970’s and 1980’s. Environmental Art, as a genre evolved out of Land Art, also developed out of the increasing environmental awareness of the 1960’s. It shifted the emphasis of landscape-based art “from the predominantly formal and conceptual concerns of the first generation to the articulation of environmental frameworks.” The Environmental artists of this era positioned themselves in “a proactive stance in which the individual began to

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33 Tufnell, *Land Art*, 122.
34 Ibid.
feel empowered to intervene in the problems that had been identified.”

Many Environmental artworks proposed creative solutions to remedy environmentally damaged areas through land or water reclamation projects. Other environmentally based works were created to raise awareness of ecological issues in the social as well as the political realm. Specifically two artists, Alan Sonfist and Agnes Denes, created work that exemplified the early phase of Environmental Art. The following section will discuss Sonfist’s project *Time Landscape* and Denes’ project *Wheatfield: A Confrontation* as not only representative of early Environmental artworks but also as instrumental in the development of contemporary Environmental Art in ways that prepared the way to my own contributions to this tradition of art.

**Alan Sonfist and Time Landscape**

Proposed to the city of New York in 1965, *Time Landscape* was realized in 1978 on an 8,000 square foot rectangular plot located in Greenwich Village. *Time Landscape* is a re-planted urban forest that represents the Manhattan landscape inhabited by Native Americans and encountered by Dutch settlers in the early 17th century. Sonfist and local community members planted over 200 plant species including native trees, shrubs, wild grasses and flowers, so as to restore a portion of the land overtaken by urban sprawl to its pre-colonial state. The mini-forest contains hemlock trees, oaks, white ash, American elm, cedar, black cherry, and the plants witch hazel, mugwort, Virginia creeper, catbrier vines, and violets. Indigenous animals such as snakes, foxes and eagles were also reintroduced into this area. *Time Landscape*, as public sculpture, re-establishes humanity’s relationship to a once past but now present natural environment. Sonfist says of his work:

> “Public monuments traditionally have celebrated events in human history-acts or humans of importance to the whole community. In the twentieth century, as we perceive our dependence on nature, the concept of community expands to include nonhuman elements and civic monuments should honor and celebrate life and acts of another part of the community: natural phenomena. Within the city, public monuments should recapture and revitalize the history of the environment natural to that location.”

35 Kastner and Wallis, *Land and Environmental Art*, 16-17.

The juxtaposition of the mini-forest within the Manhattan sprawl raises questions about the duality of the conceptions of nature and culture, organic and inorganic material, cyclical, seasonal time and the constant fast-paced urban life. Additionally, the work creates an intersection of social and ecological experiences.

Jack Burnham, art theorist and critic, writes of Sonfist’s work, “He sees ‘sculpture’ in the ecological exchanges that occur every day and believes that man-nature stability will come only when we have become acutely sensitive to the natural changes around us.”

Alan Sonfist’s aesthetic interests are ecologically motivated and his work explores the interdependence of humanity and the natural environment. As one of the first environmental artistic countermeasures, *Time Landscape* set a precedent for work that is accessible to the public, ecologically restorative, and beneficial to the surrounding environment. As such, his work has influenced my practice. Although my own work is not ecologically restorative, it is aimed at generating a reciprocal relationship with the natural environment and the methods I have implemented are ecologically beneficial. Specifically, building artificial habitats for honeybees, Blue Tits and Great Tits, as part of my artistic practice helps to maintain the biodiversity of the ecology of Burren.

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Agnes Denes and *Wheatfield - A Confrontation: Battery Park Landfill*

*Wheatfield - A Confrontation: Battery Park Landfill* was a 2-acre wheat field planted on a landfill in lower Manhattan, situated visually between the Statue of Liberty and the World Trade Center. Two hundred truckloads of dirt were brought in to ready the field and 285 rows of seed were sown by hand. Agnes Denes, the artist, and a group of volunteers tended the field over four months; they constructed an irrigation system, regularly weeded, fertilized and sprayed the wheat to prevent mildew fungus. The agricultural and artistic endeavor yielded over 1000 pounds of wheat in August of 1982. *Wheatfield* used land valued at 4.5 billion dollars to produce a wheat crop worth 250 dollars. Denes said of her work “*Wheatfield* was a symbol, a universal concept; it represented food, energy, commerce, world trade and economics. It referred to mismangement, waste, world hunger and ecological concerns. It called attention to our misplaced priorities.”

Importantly, the work did not solely exist in Manhattan. The harvested grain then traveled to twenty-eight cities around the world, from 1987 to 1990, in an exhibition called ‘The International Art Show for the End of World Hunger.’ The viewers at the exhibition were encouraged to take away seeds from the harvest and plant them. *Wheatfield* was thus regenerated throughout many parts of the world not only in exhibition spaces but in the landscape as well. In this way, the artwork extends beyond itself, beyond the initial site of its realization. As an environmentally based land intervention realized through collective effort, Agnes Denes’ work demonstrates the social and political possibilities for dynamic interaction with the landscape.


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The Transformation of Landscape

Land Art transformed the representation of landscape and began to restore the viewer’s attachment to the landscape. Ultimately, however, it was Environmental Art that reconfigured the viewer’s relationship to landscape representation and thus humanity’s relationship with the natural environment. Following in the footsteps of Land artists, Environmental artists created work outside conventional gallery settings. However, contrary to Land Art, which was largely inaccessible due to isolated locations in the deserts of the American West or obscure regions in Europe, many Environmental artworks were accessible to the general public. Specifically the two artworks I previously discussed, Wheatfield and Time Landscape, were located out-of-doors in one of the most populated cities in the world. Furthermore, it was not only the communities of Manhattan that were exposed to Wheatfield; the artwork also traveled globally and was shown as recently, without the wheat, in an exhibition at the Barbican Art Gallery in 2009 entitled Radical Nature: Art and Architecture for a Changing Planet 1969-2009. The level of accessibility to Environmental artworks was a key factor in changing the viewer’s relationship to the representation of the landscape.

The importance of Environmental Art also lies in how it changed the viewer’s relationship to the natural environment. Similar to Land Art within a gallery setting, physical interaction with the artwork, through smell, movement in and around the work, was to a certain extent involuntary. However, Environmental artworks allowed viewers to also experience the processes of nature, not only the organic material in an alternative context. For the most part, Environmental artworks are living sculptures; they are not static representations. They grow. They die. They are part of a cyclical time and are involved in regeneration and reclamation. As Malcolm Andrews articulates:

“The experience of nature as process rather than picture depends on shifting the emphasis from ‘landscape’ to ‘environment.’ Landscape is an exercise of control from a relatively detached viewpoint. Environment implies a mutually affective relationship between the ‘organism’ and its environing ‘current field of significance.’”

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39 Andrews, Landscape and Western Art, 193.
A connection is made through the recognition of similar biological processes: life, growth, transformation, decay and death. In the experience of Environmental Art, self is no longer physically separated from the representation of the land, first through visceral encounters and then through biological recognition.

Environmental Art is responsible for an additional conceptual transformation between the viewer and the representation of landscape that led to the transformation of the viewer’s relationship to the natural environment. “When a landscape becomes an environment, the relationship must change: the scenic sense would then be only one of many ways in which what was landscape becomes holistically the current field of significance. The interactions between landscape and artist now become more complex.”⁴⁰ Notably, Environmental artists moved beyond the material and formal engagements of the Land artists. Environmental Art was materially based but it was also environmentally beneficial or restorative in addition to being socially and politically engaged. Addressing public issues such as the ecological history of a place, world hunger, corporate greed, and the conservation of the environment, changed the viewer’s understanding of what landscape representation could be. Interweaving the political and the social with the experience of the natural environment provided a holistic understanding of life. Self was no longer conceptually separated from the landscape. Experiencing Environmental Art, allowed the viewer to recognize him or herself as a part, a whole part, of a larger, interconnected and interdependent structure of life. Environmental artists of the late 1970’s and 1980’s turned landscape into environment through a process of interaction and engagement. In experiencing this work, the viewer’s or rather the participant’s landscape was also transformed into environment. An important precedent, it was in this way that Environmental Art reconfigured humanity’s relationship to the natural environment.

Landscape Representation Transformed
Chapter 4: Contemporary Environmental Art

“The role of artworks is no longer to form imaginary and utopian realities, but to actually be ways of living and models of action with in the existing real, whatever the scale chosen by the artist.”¹ Nicolas Bourriaud, Relational Aesthetics

Introduction

In this chapter, I discuss contemporary environmental artistic practices with relevance to my field of enquiry. Specifically, I have created the following typology: artist as ecologist, artist as collaborator with animal species and artist as environmental catalyst. The category artist as ecologist discusses the environmentally based practice of Mark Dion. The category artist as collaborator with animal species discusses Collaborative Arts practice in relation to contemporary artist Aganetha Dyck’s practice. It also discusses the individual collaborative projects of Nina Katchadourian, Hilary Berseth, and Tomas Gabzdil Libertiny. The category artist as environmental catalyst explores relational aesthetics with regard to the practices Helen Mayer Harrison and Newton Harrison and Brandon Ballengée. These themes are not intended to provide a comprehensive overview of contemporary Environmental Art, rather they narrow the field of enquiry that is relevant to my particular doctorate, specifically with regard to my sculptural investigation of ecology and my artistic collaboration with the Irish Black Honeybees, Blue Tits and Great Tits.

Artist as Ecologist

Mark Dion appropriates scientific methodology in order to create art that simultaneously raises awareness of the current impact humanity has on the natural environment and challenges humanity’s current relationship to nature. In his series of mobile natural environment units, Dion constructs outdoor scenes on small trailers. Mobile Bio Type-Jungle and Mobile Wilderness Unit- Wolf, are portable portions of nature that ‘provide access to the natural environment.’ “The paradox of relocating wilderness to serve

people’s purposes points to our misconception of the environment as detached from our everyday life.”

Mark Dion is also known for creating work that questions the social, historical, and scientific construction of knowledge related to the natural world. The intersection of art and science, Dion’s artwork often appropriates archaeological and other scientific conventions of research and display. Dion states, “I work as an archaeologist or a biologist. I’m not really claiming to be that person. Nevertheless... I’m shadowing their methodology.” Dion’s artwork blurs the line between aesthetics and the dissemination of scientific information. However, Dion is first and foremost an artist and relies on the attraction of a successful artwork to draw the public’s attention to the importance of the natural environment. In an interview with Art: 21, Dion said “In order to motivate people to care about the natural world around us, one of our chief tools is an aesthetic sensibility and certainly environmentalism has an aesthetic.”

51. Mark Dion
_Mobile Bio Type – Jungle_, 2002

52. Mark Dion, _Mobile Wilderness Unit-Wolf_, 2006

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Beyond producing visually pleasing artwork about the environment, however, Dion is interested in creating work that embodies natural processes. He says, “My art asks you to think about both nature and sculpture not as objects, but as processes.” His work *Neukom Vivarium*, a living installation, illustrates this idea. *Neukom Vivarium* is a nurse log enclosed in a climate controlled green house. The 80 foot fallen Hemlock tree is an ecosystem in and of itself that supports a variety of life including bacteria, fungi, lichen, plants, saplings and insects. In 2006, the tree was removed from the Green River Watershed in the state of Washington and permanently installed in the Olympic Sculpture Park in Seattle. The ongoing decay and regeneration of the log highlight complex natural cycles and processes. In reference to scientific discovery, Dion provides microscopes and magnifying glasses to viewers of the exhibition so that they may closely observe the various life forms of the nurse log. Additionally, he has created a ‘field guide,’ located on the blue and white tiles that surround the log, which depict the potential inhabitants and plant life of *Neukom Vivarium*.

Dion emphasizes that one of the critical aspects of the work its that it is not a positive, back-to-nature experience. He holds that re-contextualizing a dead tree (but a living system), by placing it in another location is in some ways an abomination of a project. Containing the ecosystem within a greenhouse requires an intricate life support structure including air, humidity, and water regulation systems as well as soil enhancement measures and pest control. Dion says, “All those things are substituting what nature

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does—emphasizing how, once that’s gone, it’s incredibly difficult, expensive, and technological to approximate that system—to take this tree and to build the next generation of forests on it. So this piece is in some way perverse. It shows that, despite all of our technology and money, when we destroy a natural system it’s virtually impossible to get it back.” Neukom Vivarium is ultimately an ecological exhibit; it is a representative example of environmental art articulates the interrelatedness of humanity and the natural environment through a living installation.

**Collaborative Artistic Practices**

The theoretical and historical context of collaborative practices is particularly relevant to my enquiry into relationships between artists and their environments, specifically relationships that are either equally collaborative or exploitative. The critical assessment of the various and diverse methods found under the blanket term collaborative artistic practices greatly informed my ecologically based collaborative engagements with honeybees, Blue Tits and Great Tits.

The term collaboration is widely applied to contemporary artistic practices. Although it is a current trend in art, the idea of collaborative effort in art dates back to the hierarchical large-scale Baroque studios of Bernini in which the skill and labour of apprentices was necessary in the realization of the final artworks. Additionally, it was the collaborative efforts of “Surrealists’ group experiments, Constructivists’ theatre projects, Fluxus games and Andy Warhol’s pseudo-industrial Factory” and not the solitary genius of an individual artist, which were essential in the formation of artwork. In recent years, collaborative arts practices have become widespread, have taken many different forms and appear to be an increasingly established process for creating art. “For some this offers an alternative to the individualism that dominates the art world. It is understood as a way of re-questioning both artistic identity and authorship through self-organization. For others, it is a pragmatic choice, offering the possibility of shared resources, equipment and

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5 Dion, “Neukom Vivarium Interview.”
experience.” A simplified definition of collaboration states it “is a process that is engaged in by two or more persons that work together towards a specific end; that end may be an object.” Contemporary collaborative arts practices are varied in terms of the methods of collaboration, the goals and intentions of the collaborative team as well the duration for which the group works together. Though by no means an exhaustive typology, the predominant models of collaboration include: stable working duos, intensely bonded couples who form a ‘third artist,’ larger groups or collectives, and single-issue groups of short or long duration.

Representative of stable working duos are Christo and Jeanne-Claude, and Helen Mayer Harrison and Newton Harrison – whose practices are discussed in the section artist as environmental catalyst. Both couples have been working collaboratively for over 40 years on environmentally based projects. Christo and Jeanne-Claude, often known under the artist name ‘Christo,’ additionally relied on the collective effort of thousands of workers to install monumental textile projects. Creating art that moved beyond traditional physical and conceptual boundaries of art, their work also moved beyond the traditional role of artistic authorship. However, the role of authorship in their work was complex and seemingly contradictory by nature in that “their constitution of a singular, almost megalomaniac corporate identity (replete with trademark artistic signature) coexisted with its apparent opposite, a highly cooperative collaborative working method.”

Gilbert and George and Marina Abramovic and Ulay are both of the category – intensely bonded couples who form a ‘third artist.’ Gilbert and George present themselves as one artist, two individuals but one artist. Declaring themselves to be living sculptures, they dress alike, look alike, always refer to themselves as ‘we’ never ‘I,’ and finish each other’s sentences. Their public persona never waivers and only adds to the perception and projection that they have created a merged third identity. Though no longer a collaborative

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7 Billing, Taking The Matter Into Common Hands, 8.
team, Marina Abramovic and Ulay, were artistic and romantic partners who did not separate their personal lives from their artwork. Through the merging of their identities in performative art, they held that a third persona, with a hermaphroditic identity, independent of them, was created. The couple termed this third identity ‘Rest Energy.’ Ultimately, it was the generation of ‘Rest Energy,’ and the coalescence of identities that became the focus for their collaborations.

As the name indicates larger groups or collectives are models for collaborative work that typically involve three or people working together towards shared aims. Following the example of Archigram, A12 is a collective of five architects, founded in 1993, active in the fields of architecture and visual art. Interested in the role architecture plays in urban and social settings, A12 re-imagines the use of already existing structures. Through a series of simple operations, the architects repurpose the structures to accommodate the changing needs of contemporary culture. “The investigation of modern day cities often inspires A12 to create zones of respite and contemplation within the built environment.”

Single-issue groups of short or long duration are collaborative groups that come together to resolve particular situations and then tend to dissolve once the sufficient action has been taken, the context for the situation changes, or the group’s dynamics shift. One group, Park Fiction, worked collaboratively for over ten years. Begun in 1994, the Park Fiction project evolved out of a campaign by local community members in reaction against the development of a site in the harbor area of Hamburg, Germany. Through a series of protests, talks and exhibitions the group prevented the construction of a housing and office complex. As an alternative to the complex, the community designed and planned a public park. Funded by the Hamburg’s cultural department, the park was ultimately realized in 2005. A local community member said “It wasn't just about having the park as a green area, but also about parks and politics, about the privatization of public space, about parks all over the world, about skateboarding and the pace of the city and

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10 Manacorda and Yedgar, eds. Radical Nature, 32.
accordingly it was about community conferences and democratic planning procedures.” 11 Exhibitions were held throughout the ten years, initially to raise awareness of the future of the site and then as a means for disseminating information about their own collaborative process. After the park was created, the group disbanded.

The discussion of a select few contemporary collaborative arts practices is intended to show the diversity in execution, from performance to living sculptures and architectural installations as well as the diversity in the issues addressed from the personal, to the political and the environmental. Additionally, within all collaborative work there exists another categorization, between single collaboration and double collaboration. In single collaboration, the artist has typically formulated the concept by him or herself. The contributions of others are directed towards the realization of an idea, the creation of the final product. In the double manifestation, collaboration occurs both with the formulation of the idea and also in the realization of the work. “The idea is developed together with others who are awarded the same status as the author and who also participate in the execution of the project.” 12 Double collaborations seem to be the most typical of present-day collaboration. Furthermore, there are various conceptualizations of collaboratively-based artistic practices which include: connective aesthetics developed by Suzi Gablik; new genre public art developed by Suzanne Lacy; dialogical art developed by Grant Kester and relational aesthetics developed by Nicolas Bourriaud. All of these methods of working have questioned the role and nature of art and the artist as well as involvement of the audience and its participation. The practices focus “on art intersecting with cultural activism, based on collaboration with diverse audiences and communities.” 13

However, the methodologies collective aesthetics (listener-centered not visually oriented), new genre public art (community based, often relating to marginalized groups) and dialogical art (based on models of successful communication, creative dialogue and empathetic insight) focus primarily on the social nature of artwork, forms of participation, the public and to a degree social activism. Because these conceptualizations of

11 ‘Sabine’ in Park Fiction: Desires will Leave the House and Take to the Streets by Margit Czenki, DVD. Accessed on May 4, 2011.
13 Ibid., 24.
collaborative practices are less relevant to Environmental Art, I do not discuss the complex ideologies of each movement. Rather, in the following section, I discuss Bourriaud’s relational aesthetics, in which the object is intrinsic to the social discourse, in reference to the environmentally based practices of Helen Mayer Harrison and Newtown Harrison and Brandon Ballengée.

**Artist as Collaborator with Animal Species**

There is another typology of collaborative artistic practices not as well known and less conventional, that of the *artist as collaborator with animal species*. The term collaboration is used with caution within this particular context. Firstly, it is applied to established artist Aganetha Dyck’s practice. Creating honeycomb-adorned sculptures for over twenty years, she refers to the honeybees, as “collaborators.” As such she is included in the category *artist as collaborator with animal species*. The classification is also used with regard to the individual artworks attributed to Nina Katchadourian, Hilary Berseth, and Tomas Gabzdil Libertiny. Nina Katchadourian refers to her series of interactions with spiders, trees, rocks, and caterpillars as “Uninvited Collaborations with Nature” and thus personally identifies an aspect of her practice as collaborative. Finally, there was no information found in which Hilary Berseth or Tomas Gabzdil Libertiny personally detail their artistic engagements as collaborative. However, I have included Berseth’s work in the category *artist as collaborator with animal species* in part because a review in the New York Times describes Berseth’s honeycomb sculptures as “part human-made part bee-made.” I have also included his work in this category because of obvious parallels between his and Dyck’s methodology. Additionally, I have included Gabzdil Libertiny within this category based upon analogous processes of creation as well to statements made within a critical review that describes his process to employs “wild-life

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entity as the means to fulfilling the final product. The sculptures exhibited by both Berseth and Gabzdil Libertiny are reliant upon bees to contribute and complete armatures made by the artists themselves. The use of the term collaboration as applied to my artistic practice will be expanded upon in greater detail in the final chapter of this thesis.

The collaborations within this category are all single collaborations in that the artist has initially conceived the project that is then developed in conjunction with various animal species. It may at first appear that the artist David Nash, discussed in Chapter Three with relation to Ash Dome, has collaborated with ash trees in order to realize the project. I would argue, however, that his methodology is fairly one-sided. His traditional techniques of guiding and fletching saplings, similar to topiary and conventional gardening practices, are methods of control and manipulation. To be clear, I am not indicating any malicious or harmful intent, however in terms of collaboration, I do want to point out the lack of ‘contribution’ on the trees’ part. I would argue that collaborating with plants and trees is virtually impossible as there is no appropriate determination for understanding the range of a plant’s reactions to a given set of circumstances. The breadth of plant species’ reactions within artistic contexts appears limited to the plants’ ability or inability to grow within predetermined parameters. Living or dying hardly seems to be enough of a contribution to the realization of an artist project to be called a collaborative effort. Action is required on the part of at least two agents to be considered collaboration. Furthermore, I would argue that for an artist to collaborate with non-human species requires, at the very least, a degree of voluntary participation on the part of the non-human species. As plants and trees are hardly capable of voluntary participation, I hold that successful collaborations between artists and non-human species are best realized with animal species.

The following paragraphs discuss the collaborative practice of contemporary artist Aganetha Dyck who works with honeybees to create artwork. It also discusses briefly the individual collaborative projects of Nina Katchadourian, Hilary Berseth, and Tomas

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These artists have not developed practices based on the collaboration with animal species; however, I feel it is important to acknowledge the individual artworks that contribute to the understanding of this less conventional methodology for creating art. The four artists presented in this section have collaborated with animal species, namely insects, to varying degrees of success. Rather than specifying the category as *artist as collaborator with insects*, I have left the category as *artist as collaborator with animal species* so as to eventually include my own practice that involves collaboration with birds as well as honeybees. I discuss my collaborative artistic practice in detail in the critical review of the process of research section of this thesis.

Aganetha Dyck is a Canadian artist who has created artworks in conjunction with honeybees since 1991. As is typical of collaborative artistic practices, her methodology challenges traditionally held roles of the artist as solitary genius. By placing various objects such as Victorian figurines, shoes, clothing, drawings and photographs within traditional beehives she is inviting honeybees to alter both her artworks and everyday objects. Relinquishing a large degree of control over the final outcome of the artworks allows for the simultaneous convergence and juxtaposition of the human and non-human methods of creation. Dyck researches the potential of interspecies communication between humans and honeybees and seeks to understand the precarious and fragile nature of this relationship. “Working in a collaborative process with the insects, she creates sculptural and visual representations of this communication in a way that neither party could have created individually.”\(^\text{18}\) Specifically interested in the power of the small, her artistic investigations ask questions “regarding the ramifications all living beings would experience should honeybees disappear from earth.”\(^\text{19}\)


\(^{19}\) Aganetha Dyck quoted in “Interview with Aganetha Dyck.”
First and foremost, Dyck identifies as an artist and not a beekeeper. She rents colonies of honeybees, beehives and apiary space from a qualified beekeeper. It is the beekeeper, not her, who looks after the bees. All of Dyck’s work is overseen by a scientist and completed under the direction of the beekeeper. Relying on expert opinions and advice to inform her methodology, she states, “Communication and collaboration with the honeybees begins with the acknowledgment and understanding of their ways of existing and their methods of working.”

Dyck views the artwork as a result of an equal collaboration through an exchange of materials and techniques. For the most part, she allows the honeybees’ construction to remain as it is when it is removed from the hive. However, if the sculpture is completely covered in honeycomb, she may carve into it or even add to their construction. Additionally, she may place the ‘revised sculpture’ back into the hive for further sculptural input from the bees. She states, “When they follow my suggestion I know that we are communicating and collaborating. If they do not follow my suggestion, I follow theirs, knowing that we are communicating and collaborating.”

Dyck typically allows the bees “to make the last creative decision.”

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55. Aganetha Dyck, *Queen*, Beework on figurine of Queen Elizabeth II, 2007

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20 Aganetha Dyck quoted in “Interview with Aganetha Dyck.”
21 Ibid.
22 Ibid.
Recognizing their importance within the natural environment, Dyck’s durational practice is implemented with cautious respect and admiration for the honeybee. Although her collaborations with honeybees result in exquisitely beautiful, interesting sculptures, I feel the objects chosen by Dyck do not reflect an environmentally based message. Honeycomb built on top of everyday objects highlights the intricate architecture of the bees and combines their building processes with human-built objects. It is unclear however, despite her claims, as to what extent the work raises awareness of humanity’s dependence upon bees as the main pollinators of our food sources or to what extent it highlights the current drastic decline in honeybee population.

In the past, a number of artists have created artwork in collaboration with animal species. Those projects however, are not the result of longstanding collaborative artistic practices; they are isolated artworks. The following paragraphs will explore several of these projects as they contribute to the understanding of the methodology and ultimately the result, of artworks that are realized in part through collaboration with animal species.

In a 1998 project titled *The Mended Spider Web Series*, Nina Katchadourian stitched and mended what appeared to be holes in spiders’ webs. The repairs were made by inserting segments of starched thread directly into the web. The shorter thread patches were held in place by the stickiness of the spider’s web while the longer thread patches were dipped in glue before placement in the web. Katchadourian states she “fixed the holes in the web
until it was fully repaired, or until it could no longer bear the weight of the thread. In the process, I often caused further damage when the tweezers got tangled in the web or when my hands brushed up against it by accident.”23

After her first repair, she found a pile of red threads under the mended webs. Her first presumption was that the wind had blown the threads out but “on closer inspection it became clear that the spider had repaired the web to perfect condition using its own methods, throwing the threads out in the process.”24 She states that the spider ultimately rejected every attempt at repair and collaboration, even in webs that appeared to be abandoned. Although Katchadourian’s efforts at artistic collaboration with spiders are momentarily beautiful and poetic, her interventions ultimately seem to be more intrusive and aggravating than collaborative.

Hilary Berseth and Tomas Gabzdil Libertiny have both created artworks in collaboration with honeybees. Berseth created a series of seven armatures with prefabricated wax sheets. The forms, which emulate the spacing between frames of traditional hive, were then placed inside a square box that became the beehive. Berseth then introduced a

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24 Ibid.
honeybee colony to each enclosed sculpture. At the end of the season, when the bees had all but stopped building honeycomb, Berseth removed the sculptures.

Like Dyck, Berseth is not a beekeeper and relied on outside expertise for interactions with the honeybees. Unlike Dyck, however Berseth is interested “in programming systems that replace artistic decision making with processes that generate unexpected outcomes, simulating creativity.”25 He views his interventions in the beehives as mathematical programs that generate sculpture which are simultaneously organic and artificial. Berseth’s sculptures are extraordinarily seductive in form, color and one can imagine-smell. Unfortunately, the fact that he removed the entire formed honeycomb at the end of summer means that he took a considerable amount of the bees’ honey and pollen stores along with the sculpture.26 This methodology disregards the welfare of the honeybees. Thus the collaboration seems to an extent exploitative as it uses the honeybees for their sculptural assistance, and proportionally takes a large amount their work and food stores. This ultimately leaves the bees with a degraded habitat.

26 A conscientious beekeeper leaves a minimum of ten to fifteen pounds of honey for the bees to survive the winter. This may be supplemented with sugar syrup, but the syrup is not an equal substitution for honey and pollen.
Although Tomas Gabzdil Libertiny’s work *Unbearable Lightness* was presented at the art fair Design Miami/Basel in 2010, very little information is available about the artist or his artwork. However, I mention the piece as it adds to the diversity of artworks created through the collaboration with honeybees. Because his methodology is not detailed, I can only speculate as to the reason honeycomb is bright pink with traces of orange. Beekeepers often supplement honeybees’ diets with a sugar solution. If Libertiny were to color the solution with non-toxic food coloring or even beet juice, it could theoretically result in the pink honeycomb skin built on top of the figure. During the exhibition the figure was displayed in a clear glass observation hive that allows viewers an intimate view of the inner workings of a hive. The visual juxtaposition of the static human figure and the live honeybees enclosed within a glass case posits various interpretations of humanity’s relationship with the natural and artificial environment.

The discussion of the category as *artist as collaborator with animal species* was intended to provide an overview of the practices and individual artworks that contribute to the understanding of this less conventional methodology for creating art. As stated previously, single collaborations are most often found in the earliest manifestations of collaborative practices, such as the work created in large-scale artist studios/workshops. However, artists who collaborate with animal species are contemporary and progressive in their thinking and execution of art. Though few in number, these artists are interested in a range
of issues from the environmental, the social and political to the mathematical. Their methodologies range in character as well, from the intrusive and exploitative to the considerate and respectful. Collaborating with animals to create art, as has been demonstrated, addresses, in a multiplicity of ways, humanity’s relationship with the natural environment.

**Relational Aesthetics**

Nicolas Bourriaud does not specifically discuss relational aesthetics, the aesthetic theory that judges “art on the basis of the inter-human relations which they represent, produce or prompt,” with regards to collaboration. However, he speaks of the interaction, engagement and exchange created through art-generated relationships that exist in the social realm. He states that relational art “is a set of artistic practices which take as their theoretical and practical point of departure the whole of human relations and their social context, rather than an independent and private space.” This concept establishes a fertile framework for artists interested in collaborative arts practices and many have incorporated relational aesthetics into their theoretical foundations.

However, Bourriaud’s discussion of relational art, was originally conceived to apply to a select group of artists: Dominique Gonzalez-Foerster, Jorge Pardo, Carsten Höller, Philippe Parreno, Liam Gillick, Rirkrit Tiravanija, Angela Bulloch and Maurizio Cattelan. He holds that “this heterogeneous group of artists, proposes social methods of exchange, and different communication processes, in order to gather individuals and groups together in other ways than those offered by the ideology of mass communication. They seek to entice the observer or viewer into the aesthetic experience offered by the artwork.” The relational art developed by these artists typically requires a degree of interaction or participation from the viewer and at times a direct collaborative involvement. Relational artists, as Bourriaud describes, are not interested in depicting or reproducing current

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28 Ibid., 113.
situations, rather they seek to create micro-utopias using the social interactions of humanity as the generators of their work.

Although the term was originally used to discuss this particular group of artists, relational art has in recent times referenced any artwork that has an interactive, participatory or socially related dimension. “Recent years’ relational tendencies, which often depart from the model Bourriaud formulated, include interventionist and off-site projects, discursive and pedagogical models, neo-activist strategies and increasingly Functionalist approaches (e.g. art/architecture collaborative groups).”

Applied to a breadth of artistic practices, the concept of relational art can become diluted and much this work is often criticized for being intellectually and aesthetically meager. This may in part be due to a lack of clearly established criterion for successful interaction or participation. An examination of the initial models for relational art “ reveals that more or less all types of interaction and exchange occur amongst the artists which Bourriaud refers to, which at the end of the day make the concept of relational aesthetics even more open-ended than collaboration.” It is, in part the open-endedness within the theory that has led to inferior executions of relational artworks. However, it is also due in part to a reliance on poorly investigated theory, a lack of aesthetic and conceptual rigor and confidence in a predecessor’s marginal example.

To be clear, I do not find fault with the generalized appropriation of relational aesthetics if handled competently. Bourriaud’s vision for contemporary art is as appealing as it is revolutionary. In his own words, “the possibility of a relation art points to a radical upheaval of the aesthetic, cultural and political goals introduced by modern art.” Art is not restricted to a visual comment of current political, environmental or social situations. Nor is it restricted as an historical document or an idealized projection. “The role of artworks is no longer to form imaginary and utopian realities, but to actually be ways of living and models of action within the existing real, whatever the scale chosen by the

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31 Bourriaud, Relational Aesthetics, 14.
There is boundless potential for artists who seize upon this notion of contemporary artwork. There are three such contemporary Environmental artists whose works are, although they do not describe their practices as relational, ways of living and models of action. The artists, Brandon Ballengée and the collaborative duo Helen Mayer Harrison and Newton Harrison, are discussed following a brief introduction to EcoArt, in the section *artist as environmental catalyst*. Notably, I do not hold my artistic practice to be relational as Bourriaud theorized with regards to the initial group of artists. Rather my practice endeavors to be a way of living and model for action through my artistic collaboration with honeybees, Blue Tits and Great Tits and the creation of artificial habitats, which support the biodiversity of the ecosystems in the Burren.

**EcoArt**

Although neither Brandon Ballengée nor the Harrisons refer to themselves as EcoArtists, it is worth a brief introduction to this subcategory of Environmental Art as their practices share overlapping tenets with the artistic movement EcoArt. EcoArt is a relatively new movement that has been in existence for approximately thirty years. The term EcoArt or ecological art, is also written as eco art, eco-art or EcoART. The variations of spelling reflect the fact that EcoArt is still in the process of distinguishing itself as an independent artistic movement. However, there are several shared principles among the various definitions that seek to articulate EcoArt’s contemporary position.

Firstly, EcoArt combines, aspects of three main contemporary artistic movements namely environmental art, activist art\(^{33}\) and community-based art. The greenmuseum.org defines EcoArt as “a contemporary art movement, which addresses environmental issues and often involves collaboration, restoration and frequently has an eco-friendly approach and methodology.”\(^{34}\) EcoArt’s site-specific interventions are “aimed at political, social, ecological and geographical realities and contexts that have resulted in environmental

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\(^{33}\) EcoArt SoFla defines activist art as art that engages the public, primarily outside traditional art venues (but also in them), and often in ways that attract media attention; and seeks to bring the hidden sources of environmental degradation out into the open.

degradation; it brings the causes of environmental degradation and approaches to addressing them greater visibility.” 35 A critical tenet of EcoArt is the fact that it exists in a social context and is grounded in community involvement and community relationships. Self-indentified EcoArtist Ruth Wallen states, “While the work may express an individual vision, the work is created to communicate, to stimulate dialogue, and to contribute to social transformation.” 36 An equally critical principle of EcoArt, according to multiple sources 37 is that the movement does not typically produce art objects for display whether for museums, galleries or external venues. There may be descriptive documentation of EcoArt projects that refer to their ecological interventions, however, process is first and foremost elevated above the creation of product. Finally, it is important to note with regards to environmental amelioration, the fact that EcoArtists collaborate with “key stakeholders… including engineers, scientists and—especially, and often—entire communities has become another important characteristic of this work that differentiates it from other forms of environmentally engaged art practice.” 38

Notably, Joseph Beuys is often characterized as an EcoArtist, although this movement developed years after two of his most influential works such as 7,000 Oaks (1982) and Honey Pump in the Workplace, 1974-1977, were realized. Although, I believe the entire scope and breadth of Beuys’ practice is such that it defies rigid compartmentalization, it is useful to note his important influence in relation to the fields of socially and ecologically engaged artistic practices. Specifically, Beuys employed sculpture as “a spatial metaphor for the interrelatedness of society. His complex theory and practice [social sculpture] epitomized how process renders transparent the relationship between thought, behavior, and social systems.” 39 Although Beuys’ artwork investigated the complex the intersection

39 Stiles & Selz, Theories and Documents of Contemporary Art, 582.
of art, society, and ecology, his practice was not community-based as earlier defined and therefore he is not an EcoArtist in the strictest sense of the definition.

In conclusion, neither are the practices of Brandon Ballengée and the Harrisons. Although their practices share overlapping tenets with the artistic movement EcoArt, such as concern for environmental degradation, interdisciplinary collaboration with scientists, involvement from and interaction with community members, I do not believe the term EcoArtists is directly applicable. It may be only one principal, however, I believe it is pivotal that the three artists are concerned with the creation of art objects for display within conventional exhibition settings. The works of art created as a result of Ballengée and the Harrisons’ practices are critical, primary means for communicating humanity’s relationship to the natural environment. It is this for the reason, as well, that I do not identify as an EcoArtist.

**Artist as Environmental Catalyst**

According to the Oxford dictionary, a catalyst is a “person or thing that precipitates an event.” As contemporary artists, Brandon Ballengée and the Harrisons are environmental catalysts. They highlight, and along with involvement from community members, seek to rectify localized environmental damage. As stated previously, ecology, generally speaking, is the study of relationships. Both Ballengée’s and the Harrisons practices act as living ecological models for conscientious engagement with the natural environment. With regard to environmental responsibility, their work has widespread, beneficial implications for humanity’s connection with their surrounding environments. Additionally, their artistic, environmental and social engagements present new models for the relationship between humanity and nature as well as new roles for the artist in society.

**Brandon Ballengée**

Since 1996, Brandon Ballengée has created artwork that raises awareness of the effects on animal species due to habitat alteration from human activity. Specifically, his work

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centers on the global declines of indicator species such as frogs, toads, and salamanders and tracks the increased numbers of deformities found in their populations. Ballengée’s practice involves collecting and photographing amphibious indicator species. An indicator species is any organism within a specific environment that “can signal a change in the biological condition of a particular ecosystem, and thus may be used as a proxy to diagnose the health of an ecosystem.”

The scanned images of cleared and stained multi-limbed amphibians represent the environmental degradation of particular locations. Ballengée’s field studies have been carried out in various locations including the wetlands in central Ohio, the Hudson River in New York City, the Lough Boora Parklands in Offaly and Yorkshire Sculpture Park in England.

Importantly, Ballengée’s work is not solely a comment on the decline of ecological systems, he also focuses on implementing increased environmental understanding by involving local communities to join his field-surveys and species collections. With regards to the Hudson River Project, he states, “I would like people to recognize that the river is not separate from their daily lives; it is not located somewhere else, but is integral to the interconnected communities along the shoreline.”

Ballengée emphasizes how humanity is connected to everything in water systems from microscopic phytoplankton that help

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create the air humans breathe to fish humans consume to the body of water that supports various lively hoods. His interactions with local community members and students during the hands-on ‘Eco-Action’ field-surveys seek to show how daily activities impact the life of the river. Ballengée states, “by bringing the public along, I try to bridge communities to local eco-systems and the great diversity of life found within and also the causes for this degradation.”

Furthermore, Ballengée recognizes that the success of his practice is in large part due to a collaborative effort. He states:

“These transdisciplinary works are generated at various locations and involve collaboration with participants from diverse age, economic, educational, and ethnic backgrounds. Working and communicating with diverse groups is vital to the creative process. It allows the works to function as site-specific- not only in geographic terms, but also culturally. This intellectual exchange also permits the work to grow in novel directions guided by group ideas instead of a solitary artist's hand--like organisms evolving to changing environmental stimuli.”

During the field surveys, Ballengée and the Eco-Action participants count, for scientific research purposes, the various species in the bodies of water and surrounding areas.

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44 Ibid.
Further investigation of the animal and plant species occurs through photography and drawing. The field surveys also include collecting water samples and removing garbage from the local area. Ballengée then uses these experiences to create installations within galleries located in the vicinity of the survey site. The exhibitions then serve to communicate the experience of an engaged and conscientious relationship with the natural environment.

Helen Mayer Harrison and Newton Harrison
The husband and wife collaborative team Helen Mayer Harrison and Newton Harrison began creating Environmental artworks in the 1970’s. In contrast to the aggressive interventions of the American Land artists, the Harrisons’ approach was ecologically based and environmentally restorative. “Though the Harrisons have occasionally dealt with issues like the deforestation of the Pacific Northwest, the defensive psychology of urban design, and the possibility of a memorial to the victims of Nazi atrocities created from rubble and scrub flowers on the former site of SS headquarters, the Harrisons’ most consistent subject has been a systemic analysis of watersheds here [in America] and abroad.”45 Their ecologically based artistic projects question the standardized policies that regulate water systems. They argue that unquestioned practices for controlling floods, irrigating land, and drying out wetlands for the purpose of urban expansion, all have detrimental consequences for the natural environment as well as humanity. Through their practice and through each individual project, the Harrisons “advocate various forms of


restoration and reclamation to bring human needs back into synchronism with natural processes."\textsuperscript{46}

The Harrisons state, “Our work begins when we perceive an anomaly in the environment that is the result of opposing beliefs or contradictory metaphors. Moments when reality no longer appears seamless and the cost of belief has become outrageous offer the opportunity to create new spaces – first in the mind and thereafter in everyday life.”\textsuperscript{47} They then investigate the environmental health of the particular region through firsthand encounters with the site, subsequent research and interviews with biologists, anthropologists and the local community. Exhibitions are then held in public fora such as libraries or city halls as well as galleries and museums. Newton Harrison describes conventional exhibition spaces as such, “The gallery for us, and the museum for us, is a meeting hall. It is a meeting hall for text, for ideas and for images. We see the gallery as staging ground; as a metaphor for a much larger field of play.”\textsuperscript{48} Whether traditional or public spaces, the most important criterion for the location of the exhibition is that it serves as a place for public discussion and interaction. They have developed a visual language for communicating their research and investigations of specific ecosystems by combining text with photographs, illustrations and maps. “Each work is presented as a poetic dialogue woven together from diverse voices, including those of planners, ecologists, botanists, foresters, the artists themselves, and even the rivers and waterways whose histories and futures are under consideration.”\textsuperscript{49} By involving local communities in their projects and by stimulating dialogue and discussion amongst the public, they exert pressure on political systems and policy makers to enact change that will remedy environmental damage and restore ecological balance to select regions and habitats.

The Harrison’s current project is entitled \textit{The Force Majeure Works}. On their website, the Harrisons describe the work as such, “We developed the name ‘the Force Majeure’ to

\textsuperscript{46} Felshin, \textit{But Is It Art?}, 146.
\textsuperscript{49} Felshin, \textit{But Is It Art?}, 144.
explain the accelerating transaction between aspects of the global warming phenomenon and their interaction with the many ecosystems that are under stress or in actual turbulence from over-demand by human activity." The work envisions and explores methodologies that might buffer the drought, flooding and erratic weather that will inevitably befall the earth when the levels of the world oceans rise. In a three-part series, the Harrisons explore the effects of climate change on the continents of Europe, Asia, and North America, specifically the west coast of the United States. The exhibitions are designed to elucidate the basic fact that these continents and countries are not equipped, conceptually, legally, or structurally to counter or even handle the ramifications of this Force Majeure. The intention of this exhibition is to mobilize world governments to implement policies and practices that will radically alter humanity’s existing destructive behaviors and activity in order to prevent the impending future scenario.


71. The Harrisons, *The World Ocean is a Great Draftsman, Where the Island of Britain becomes many islands as the ocean rises 100 meters*, 2009

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50 The Harrisons quoted on their Website.
Grant Kester in “Collaborative Practices in Environmental Art,” succinctly writes of the Harrisons’ practice:

“...The innovative ecological proposals of Helen and Newton Harrison, generated through free-flowing conversations among scientists, activists and policy makers, are one of the most important touchstones for contemporary Environmental Art practice. Over the past four decades their projects have embodied a relationship to nature not as something to be mastered or turned to our advantage, but as an interlocutor and agent speaking to us in a language we are not always prepared to understand. There is, one might argue, an underlying synchronicity between their collaborative approach (in which the work of art is less an a priori construct than an open-ended process) and the ethical relationship to the land implicit in their work.”

Both Ballengée’s and the Harrisons’ practices actively engender conscientious relationships between humanity and the natural environment. It is in this way that their artworks extend beyond singular engagements. Akin to a pebble in a pond, their work has far-reaching implications for connecting local community members with their surrounding environments. Ballengée’s and the Harrisons’ practices facilitate environmentally responsible ways of thinking and living which in turn influence environmental belief systems. Ultimately, it is this environmental consciousness coupled with ameliorative action that positively influences people’s long-term engagements with the natural environment.

Summary of Part II
The Reflective Analysis of the Theoretical and Historical Context of Research

The previous four chapters combine to form the first section of this thesis, the reflective analysis of the theoretical and historical context of research, which is to say the field of enquiry. They critically assessed the artistic tradition of landscape representation from landscape painting to Land Art to contemporary Environmental Art. This section established the art historical field of enquiry of my doctoral research. Additionally, throughout the chapters, I aligned the visual evolution of landscape representation with humanity’s evolving relationship to the natural environment. In order to fully understand humanity’s conceptualization of and relationship to the land and thus to the representation of landscape, I began this section with a discussion of landscape theory and phenomenology. This analysis of ideologies and theories served to establish the cultural, historical, scientific and experiential foundations of the complex relationship between humanity and the natural environment.

Chapter One: Land Into Landscape explored in depth the ways in which we view, understand, conceptualize, and relate to the land through landscape theory and phenomenology- the land becoming landscape. It critically assessed the historical, cultural, scientific and procedural influences that have shaped present day belief systems as a means to create a foundation for understanding both viewers’ and artists’ interactions with landscape representation and ultimately Environmental Art. Having established landscape as fundamentally engaged with and shaped by ideology, the chapter explored the notion that we may experience the landscape independently of those conceptualizations. I showed that phenomenology provides an additional structure for determining meaning, that is, for knowing the land. Central to my discussion of phenomenology as an ecological concept, was the importance of Dasein, being-in-the-world, and Sorge, the nature of Dasein’s intentionality, as humanity’s means for experiencing and understanding self in relation to the surrounding physical environment and ultimately the landscape.
Chapter Two: *Landscape Into Art*, explored the artistic representations of the landscape—landscape becoming art. I argued that landscape representation is the depiction of a relationship between humanity and the natural environment. A survey of landscape elements in painting chronicled the pictorial progression of landscape representation from Early Egyptian art to Romantic landscape painting. The critical consideration of the pictorial elements found throughout landscape-based images, revealed the conceptual evolution, over centuries, of humanity’s relationship to the landscape. A brief discussion of Romanticism as an international philosophical and artistic movement conveyed its important influence. Ultimately, this genre of art transformed artistic endeavors in practice and theory and also reconfigured relationships between the individual, nature, and society. As a foundation of Land Art, Romantic landscape painting established the validity of an artistic genre focused solely on the various expressions of humanity’s relationship with the natural environment. As such the remaining sections of this chapter critically assessed the tenets of the sublime and the picturesque as illustrated through both Romantic landscape painting and Land Art. This analysis articulates the connections between the two genres and then serves to establish Land Art as an artistic precedent for Environmental Art. A central argument within Chapter Two proposes that the representation of landscape as the central theme in a painting, in any work of art, is ultimately the depiction of a relationship between humanity and the natural environment. I argued that this was the most significant contribution of Romantic landscape painting with regard to Environmental Art: it established the validity of an artistic genre focused solely on the various expressions of humanity’s relationship with the natural environment.

Chapter Three: *Landscape Representation Transformed*, Chapter Three, *Landscape Representation Transformed*, further evaluated the visual and conceptual evolution of this relationship through the analysis of Land Art and Environmental Art. This chapter began with the critical assessment of Land Art as the starting point for Environmental Art and the genre that revolutionized landscape as a theme in art. I reviewed Land Art beyond its expression of the sublime and the picturesque as introduced in Chapter Two. The philosophies, intentions and works of select first generation American Land artists were contrasted to the parallel but vastly different movement of the British Land artists.
Specifically, I detailed how the genre of Land Art transformed landscape representation within, as well as outside, conventional exhibition spaces. I then discussed the works of the first Environmental artists, whose practices engaged with the landscape “with an activity meant to remedy damage.”1 Although Land Art began to restore the viewer’s attachment to the landscape with indoor installations of organic material, I argued that it was Environmental Art that ultimately transformed humanity’s relationship to the natural environment.

In the final chapter of this section, Chapter Four: Contemporary Environmental Art, I discussed contemporary Environmental Artistic practices with relevance to my field of enquiry through the typology artist as ecologist, artist as collaborator with the animal species and artist as environmental catalyst. I discussed Mark Dion’s appropriation of scientific methodology in the creation of art that challenges humanity’s current relationship to nature. Specifically, I discussed Neukom Vivarium as an example of Environmental Art that articulates the interrelatedness of humanity and the natural environment through a living installation. I then examined a select few manifestations of contemporary collaborative artistic practices in terms of stable working duos, intensely bonded couples who form a ‘third artist,’ a larger collective, and a single-issue group of long duration. This review showed the diversity of collaborative practices in execution, from performance to living sculptures and architectural installations, as well as the diversity in the issues addressed from the personal, to the political and the environmental. I then elaborated between single and double collaboration in order to explain one aspect of the methodology of artists who collaborate with animal species. The artistic practice of Aganetha Dyck and the isolated projects of other artists highlighted the progressive thinking and creation of this type of collaboration. It also demonstrated, despite the diversity of works, that collaboration with animals in the creation of art addresses, in a multiplicity of ways, humanity’s relationship with the natural environment. I prefaced the discussion of artist as environmental catalyst with a review of Bourriaud’s relational aesthetics. Although relational art has in recent times referenced any artwork that has an interactive, participatory or socially related dimension, I argued that a generalized

1 Jeffery Kastner and Brian Wallis, eds. Land and Environmental Art (London: Phaidon Press, 2010), 17.
appropriation of relational aesthetics may have positive implications if handled competently. Despite the fact that Ballengée and the Harrisons do not refer to themselves as EcoArtists or relational artists, I acknowledged their practices as models for conscientious ways of interacting with the natural environment. I believe their practices to be an articulation of environmentally based relational art that points “to a radical upheaval of the aesthetic, cultural and political goals introduced by modern art.”

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Part III

The Critical Review of the Process of the Research
Introduction to Part III
The Critical Review of the Process of Research

The third section of this thesis, the critical review of the process of research, reviews the methods, methodology and the journey of the past three years of this research project. The progression and development of my artistic practice is explored during this time through nine artworks. The works include Extended Life, Moving Moss Stones, A Presentation of the Landscape, The Microscopic Photograph Series, The Culture of Paper, A Nest of Hazel, An Experience of Hazel, The Collaborations with Blue Tits and Great Tits and The Collaborations with the Irish Black Honeybee. At the beginning of each chapter, I present the key concepts that arose through the studio enquiry of each year. This serves to clarify the terms of reference that will be discussed as I then present, in chronological sequence, the sculptures that emerged from the process of research. Throughout the journey of this research project, I describe the ways in which my sculptures visually demonstrate the evolution of my relationship to the land of the Burren in County Clare Ireland. Finally, I discuss my contribution to the fields of contemporary Environmental Art and landscape representation.

In Chapter Five: The Ecology of a Work of Art, I discuss my process of research, as it relates to the sculptural investigation of ecology, from the autumn of 2008 to the autumn of 2009. To begin this discussion, I introduce ecology as a key concept that arose through my studio enquiry. In simplified terms, ecology is the study of relationships in all contexts. Importantly, this generalized notion of ecology is implemented in my doctoral research as a methodology and is further expanded through the creation of a series of sculptures. For this reason, it is necessary to first define this key term, as it is integral to the methods, methodology and journey of this process of research.

As I introduce ecology, I begin with a discussion of the scientific definitions of this particular branch of science. I then present Felix Guattari’s notion of the three ecologies as a precedent for expanding and employing the ecological notion outside

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the investigation of environmental ecology. Specifically, I hold that the concept of ecology may be applied as a theoretical framework to analyze the function of an individual artwork. In relation to my processes of research, I then discuss two artworks, *Extended Life* and *Moving Moss Stones*. Both works explored the notions of growth and transformation through the use and study of organic matter. As a result of my studio enquiry, I questioned specific terms of reference, namely organic matter, material and medium. This section explains the differences between these terms as I have determined them. Derived from the natural environment, I argue that organic media have a unique ability to represent the landscape and concepts related to the natural environment. Additionally, I hold that artwork created with organic materials is not solely a representation of landscape but that it is a presentation of elements of the land and thus the presentation of humanity’s relationship with the natural environment. Furthermore, this chapter discusses organic media as the foundation for my artistic practice and doctoral project. Through the study and use of organic matter within my sculptures I explored how as an artist I relate to the landscape. Specifically, *Extended Life* emerged through a traditional sculptural process of carving and shaping. However, *Moving Moss Stones* transformed my relationship to the materials I used as well as my relationship to the surrounding environment. This project marked the beginning of an evolution in my artistic practice that I will further describe in the sixth chapter.

In Chapter Six: *The Ecology of Artistic Practice*, I discuss my process of research from the winter of 2009 to the winter of 2010. During this time I employ a generalized definition of ecology as a theoretical framework to analyze and develop the relationship between my artistic practice and the land of the Burren. As the philosophical framework for my doctoral project, I discuss eco-phenomenology, a relatively new philosophical enquiry, as an extension of phenomenology and contemporary ecological thought. In relation to my studio enquiry, this chapter discusses the specific tenets of eco-phenomenology that are relevant to my sculptural investigation of ecology. This chapter also discusses the landscape of the Burren so as to situate my doctoral research within its particular location. The discussions of eco-

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2 Webster’s Dictionary. s.v. “function.” Function is defined as a factor related to or dependent upon other factors.

phenomenology and the Burren serve to clarify the key concepts that will be discussed as I then present, in chronological sequence, the sculptures that emerged from my process of research during this time. Addressing the ecology of my artistic practice, I discuss the five artworks created during this time, namely: *A Presentation of the Landscape*, *The Microscopic Photograph Series*, *The Culture of Paper*, *A Nest of Hazel* and *An Experience of Hazel*.

Finally, in Chapter Seven: *A Sculptural Investigation of Ecology*, I discuss my process of research for the sculptures, *The Collaborations with Blue Tits and Great Tits* and *The Collaborations with the Irish Black Honeybee*, which were created between January 2010 to October 2011. Importantly, this doctoral project has taken a broad interpretation of ecology, informed by Guattari and extended as a creative process in sculpture. Thus, in the discussion of the two final projects of this enquiry it is necessary to first develop the theme and concepts of ecology, ecosystems and biodiversity in relation to my artistic practice. Notably, these are the key concepts that are explored and expanded through the two final series of sculptures of this project. In order to experience, and not simply study ecology, it was necessary for me to engage and interact with the ecosystems and the biodiversity of life within the Burren. Specifically, my engagements led to ecologically based artistic interventions, namely the construction of artificial habitats for the Irish Black Honeybee, Blue Tits and Great Tits in which I collaborated with these animals to create sculpture. This chapter concludes with a discussion of my contribution to fields of landscape representation and Environmental Art through the creation of the sculptures *The Collaborations with Blue Tits and Great Tits* and *The Collaborations with the Irish Black Honeybee*. 
Chapter Five: The Ecology of a Work of Art

“Using substance to convey meaning replaces representation with presentation, … substance as a vehicle of meaning is about what is present, about presence.”

Rebecca Solnit, *As Eve Said to the Serpent*

“The first law of ecology states that everything is connected to everything else.”

Barry Commoner, *The Closing Circle*

Introduction

In this chapter I discuss the process of research, as it relates to my sculptural investigation of ecology from the autumn of 2008 to the autumn of 2009. To begin this discussion, I introduce ecology as a key concept that arose through my studio enquiry. In simplified terms, ecology is the study of relationships in all contexts. Importantly, this generalized notion of ecology is implemented in my doctoral research as a methodology and is further expanded through the creation of a series of sculptures. For this reason, it is necessary to first define and explore critical analyses of this key term, as it is integral to the methods, methodology and journey of this process of research.

As I introduce ecology, I begin with a discussion of the scientific definitions of this particular branch of science. I then present Felix Guattari’s notion of the three ecologies as a precedent for expanding and employing the ecological notion outside the investigation of environmental ecology. Specifically, I hold that the concept of ecology may be applied as a theoretical framework to analyze the function of an individual artwork in its context. Addressing the ecology of an artwork examines the interdependence and interrelation of materials, the creation process, the intended concept and the finished artwork. It is the synthesis of these components, with specific regards to organic materials, the processes of creating sculpture with organic media and the

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4 Webster’s Dictionary. s.v. “function.” Function is defined as a factor related to or dependent upon other factors.
representation of humanity’s relationship to the natural environment, which led my initial investigation of ecology.

This chapter then discusses two artworks, *Extended Life* and *Moving Moss Stones*, which I created between the autumn of 2008 and the autumn of 2009. As part of my initial investigation into the ecology of an artwork and as a result of my studio enquiry, I questioned the differences between the terms of reference ‘matter’, ‘material’, and ‘medium.’ In the following section, I explain the differences between these terms as I have determined them. In this discussion, I establish the exploration and use organic media as the foundation for my artistic practice and doctoral project. Derived from the natural environment, I argue that organic media have a unique ability to represent the landscape and concepts related to the natural environment. Additionally, I hold that artwork created with organic materials is not solely a representation of landscape but that it is a presentation of elements of the land and thus the presentation of humanity’s relationship with the natural environment. The distinction between representation and presentation will be elaborated upon in the following sections.

Additionally, part of this enquiry during this time led me to investigate two stages characteristic to life, namely transformation and growth. Aside from gleaning biological information from this analysis, I examined the potential that living as well as non-living organic materials have for conveying concepts of humanity’s relationship to the natural environment. Through the study and use of organic materials within my sculptures I explored how as an artist I relate to the landscape. Both *Extended Life* and *Moving Moss Stones* explored the notions of growth and transformation through the use and study of organic materials and media. *Extended Life* emerged through a traditional sculptural process of carving and shaping. However, with the project *Moving Moss Stones*, I sought to create a living sculpture that would continually evolve as the plant grew. The growth of the moss and my artistic engagement were equal factors in the development and realization of this project. This sculpture, and ultimately outdoor installation, changed my relationship to the materials I used as well as my relationship to the surrounding environment. This project marked the beginning of an evolution in my artistic practice.
that I will further describe in Chapter Six: *The Ecology of Artistic Practice*. Because of this work, my creation of artwork is no longer solely product-oriented but it is also process-driven. The way my artwork is created is equally important as the final outcome. In the discussion of *Extended Life* and *Moving Moss Stones*, I align the visual evolution of my artwork with my evolving relationship to the land of the Burren in County Clare, Ireland.

**Ecology**

As a scientific discipline, ecology is generally understood through three definitions or some combination of the three. The term was first coined in the mid-19th century by the biologist Ernst Haeckel. He defined it as “the total relations of an animal to both its organic and inorganic environment.” Subsequently, in *The Ecological Web*, Andrewartha and Birch elaborated upon the definition to include the study of the distribution and abundance of organisms. More recently, in 1971 Howard Odum, defined ecology as “the study of ecosystems, as the study of the structure and function of nature.” However, the Cary Institute of Ecosystem Studies in New York has developed a contemporary definition that embodies the essence of ecology in that it is an encompassing and synthetic view of the natural environment. The Institute defines ecology as “the scientific study of the processes influencing the distribution and abundance of organisms, the interactions among organisms, and the interactions between organisms and the transformation and flux of energy and matter.” This definition emphasizes several aspects of the term including the fact that ecology is connected to both biological and physical sciences. Additionally, ecology defined in this manner denotes that this particular science is the study of reciprocal, or biodirectional, relationships between organisms and the systems containing them and the physical world. Furthermore, contemporary ecology focuses on the processes, interactions and the relations of nature rather than on independent physical

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entities themselves. Ecology then, in simplified terms, is the study of relationships in all contexts. It is the process of uniting multiple concepts, facts and figures to reach a synthesis of understanding. As Barry Commoner succinctly writes in *The Closing Circle*, “The first law of ecology states that everything is connected to everything else.”\(^9\) The following section presents a brief overview of Guattari’s extension of the definition of ecology that includes the ecology of social relations, the mental ecology of human subjectivity as well as environmental ecology. I argue his seminal text sets a precedent for expanding and employing the ecological notion outside the investigation of traditional ecology.

**Guattari and The Three Ecologies**

In *The Three Ecologies*, Guattari discusses his perception of the current ecological imbalance, namely that of social, mental and environmental ecologies, all of which are interconnected and interrelated. He notes that this turbulent situation has implications for the continuation of human life stating, “There is at least a risk that there will be no more human history unless humanity undertakes a radical reconsideration of itself.”\(^10\) He connects the deterioration of the individual and collective modes of human life to mass media and capitalism. Guattari argues that the spread and development of information and communications technology, as well as a notion similar to globalization which he terms “Integrated World Capitalism (IWC)”\(^11\) has led to an increased fatalistic passive mentality, social conformity and ultimately the current critical state of the environment.

Calling for a paradigmatic shift in thinking, Guattari argues “The only true response to the ecological crisis is on a global scale, provided that it brings about an authentic political, social and cultural revolution, reshaping the objectives of the production of both material and immaterial assets.”\(^12\) It is through this notion, which he terms ecosophy, that he advocates a new approach which incorporates and applies the methods of all three ecologies and that will respect all forms of living. Guattari states that ecosophy shares,

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\(^9\) Commoner, *The Closing Circle*, 16.
\(^10\) Guattari *The Three Ecologies*, 45.
\(^11\) Ibid., 32.
\(^12\) Ibid., 20.
along with traditional ecology, a concern for biological species and the biosphere; it “also recognizes ‘incorporeal species’\textsuperscript{13} that are equally endangered and an entire ‘mental ecology’ in crisis.”\textsuperscript{14}

Importantly, Guattari contends in this era of major crises, that traditional means of political resistance and mobilization are ineffectual and must be replaced with a new ecosophy, which is both theoretical and applied. The implications for the implementation of mental ecosophy are such that it will confront capitalism’s effects on the mental ecology of everyday life including individual, collective, creative and personal ethics. “For its part, mental ecosophy will lead us to reinvent the relation of the subject to the body, to phantasm, to the passage of time, to the ‘mysteries’ of life and death. It will lead us to search for antidotes to mass-media and telematic standardization, to conformism of fashion, the manipulation of opinion by advertising, surveys, etc.”\textsuperscript{15} In terms of the social ecology of relations and cultures, social ecosophy necessitates the rebuilding of human relations. Particularly, it “will consist in developing specific practices that will modify and reinvent the ways in which we live as couples or in the family, in an urban context or at work, etc...as much on a microsocial level as on a larger institutional scale.”\textsuperscript{16} Finally, the development of environmental ecology will extend beyond the established conservation and protection of habitats, resources and biodiversity. It will require the adoption and application of new ecosophical ethics.

With regards to my sculptural investigation of ecology, I am particularly interested in Guattari’s expansion of the contemporary association and understanding of ecology. He states:

“Environmental ecology, as it exists today, has barely begun to prefigure the generalized ecology that I advocate here, the aim of which will be to radically de-centre social struggles and ways of coming to one’s own psyche. Current ecological movements certainly have merit, but in truth I think that the overall ecosophical question is too important to be left to

\textsuperscript{13} Guattari lists incorporeal species as music, the arts, cinema, the relation with time, love and compassion for others, the feeling of fusion at the heart of the Cosmos.

\textsuperscript{14} Guattari \textit{The Three Ecologies}, 82.

\textsuperscript{15} Ibid., 24.

\textsuperscript{16} Ibid.
some of its usual archaizers and folklorists, who sometimes deliberately refuse any large-scale political involvement. Ecology must stop being associated with the image of a small nature-loving minority or with qualified specialists.”

I present this brief overview of Guattari’s extension of the definition of ecology as it sets a precedent for expanding and employing the ecological notion outside the investigation of the traditional notion of ecology. Specifically, I believe that the study of the principal notion of interrelatedness within ecology has the potential to inform and enhance the creation of art. In the following sections of this chapter, I discuss how I have used this expanded concept of ecology as a theoretical framework to analyze the function of my individual works of art.

**The Sculptural Investigation of Ecology through Transformation and Growth**

The initial enquiries of my doctoral research from 2008-2009 led me to investigate and visually represent transformation and growth within sculptures created with organic media. The organic matter I observed and experimented with included, but were not limited to, bones, beeswax, mold, seeds, leaves, moss, dried fish, honey, hazel and wren’s eggs. The organic matter used, the processes implemented and the resulting artworks were, and remain, inextricably linked. It was during the creation of these works that I realized within my practice, artistic materials, process and the final artwork could not exist independently of each other. Each component informs so that the whole is greater than the sum of its parts. Throughout 2008 and 2009, I created sculpture with organic matter that would ultimately interpret and mirror natural processes found within the landscape. The significant artworks that evolved out of this time period were *Extended Life* and *Moving Moss Stones*.

**The Analysis of the terms Organic Matter, Material, and Medium**

At the beginning of my doctoral project, I was concerned with fundamental procedural questions such as: How does organic matter become sculpture? How may an artist use organic matter to create sculpture that discusses concepts related to the natural

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17 Guattari *The Three Ecologies*, 35.
environment? How can I effectively use elements of the landscape to convey humanity’s various relationships to the land? These questions, led my initial sculptural investigation of ecology and specifically my studio enquiry, and resulted in my questioning the terms of reference ‘matter’, ‘material’ and ‘medium.’ I thus found it essential to clarify the distinction between these terms. The following discussion of these terms explains the differences as I have determined them.

Matter is “the substance or substances of which any physical object consists or is composed.”\(^{18}\) The term material is defined as “anything that serves as crude or raw matter to be used or developed.”\(^ {19}\) Akin to the conversion of land into landscape, matter becomes material when it is so designated, when it is conceptually and perceptually transformed into an appropriate substance for the artist. Material exists as a potential source, a substance that may be utilized in an artistic context. When it is used in an artistic context, it is then designated as medium. Medium is “the material or technique with which an artist works.”\(^ {20}\) Medium is a vehicle for expression or meaning as when it is used in the creation of artwork such as sculpture. Based upon the definitions of matter, material and medium, and as a further clarification, I will use ‘organic’ as a descriptor for each of these terms. ‘Organic’ is defined as “characteristic of, pertaining to, or derived from living organisms.”\(^ {21}\) For the purposes of this doctoral research, organic medium, or the plural organic media, is the implementation and use of materials derived from or characteristic of living organisms.

Organic materials fabricated as sculptural components or as sculpture become organic media. They have an inherent quality that allows the work to embody, not simply illustrate or allude to the cycles of life within it. More specifically, processes that are definitive of the natural environment are also inherent within the lifespan of organic media. These temporal processes include but are not limited to creation, growth, transformation, regeneration and decomposition. Watching and considering the growth or transformation

\(^{18}\) Webster’s Encyclopedic Unabridged Dictionary of the English Language. s.v. “matter.”

\(^{19}\) Ibid., “material.” Author’s italics.

\(^{20}\) Ibid., “medium.”

\(^{21}\) Webster’s Dictionary, s.v. “organic.”
of organic media within my sculptures was an invaluable source of information regarding the natural environment. In the study of living materials such as moss or mold, I discerned slow but constant transformation whether the plant was growing or decomposing. Determination for survival and the perpetuation of future generations was visibly evident in a plant that would atrophy three quarters of itself in order to support a limb that was producing seeds, spores or flowers. Additionally, the transformation of organic materials through decomposition aided by tiny insects or fungus, demonstrated the interconnectedness and interdependence of diverse life forms.

In addition to information regarding the cycles of life, I discovered through my studio enquiry, that organic matter reveals its ecological history, relaying how it was formed in relation to its surroundings. The processes that shape organic matter are indivisible from the matter itself. For example, pure beeswax smells warmly of honey and of the meticulously collected pollen of flowers gathered within a six-mile radius. Bones, skin, feathers and fur reveal whether the animal was a native species, an imported species or a hybrid of both. Likewise, plants are also embedded with information regarding local ecology and their surrounding environments. An invasive plant species may be illustrative of genetic adaptation, of larger scale climate change, or of new policies in agricultural production. An abundance of native species may confirm a balance with the surrounding ecosystem or the implementation of local community conservation methods.

Beyond my initial discoveries of the sculptural and aesthetic qualities of organic media, I found that organic media are decidedly associated with the natural world and thus with concepts related to the natural world. “Although the term material designates physical matter, it also assumes potential from its association with non-physical matter.”

Sculptures created with organic media, that is to say elements of the land, evoke the history of preceding movements and artistic genres, namely the representation of landscape, Land Art and Environmental Art. As such, matter when designated an organic material within an artistic context is predisposed to evoke concepts related to the

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The Ecology of a Work of Art

historical, social, and scientific ideologies of the landscape as well as the natural environment and humanity’s relationship to it.

Transformation

As previously stated, matter becomes material when it is conceptually and perceptually transformed into an appropriate substance for the artist. Through study and research of Land Art and Environmental Art, I became conscious that successful artworks subsequently transform organic material into organic media and thus into sculpture. Based upon this understanding, I realized that the process of transformation was critical to the creation of sculpture made with organic medium. Accordingly, I studied the process of transformation within organic matter and applied the notion to the visual transformation of sculptural form.

Transformation is defined as a “change in form, appearance, nature or character.”23 In an enquiry into how I could transform organic materials into sculpture, I referenced the work of contemporary Irish artist Dorothy Cross, specifically her series of sculptures created from cowhides and cow udders. Cross began to use cow udders as sculptural material after a visit to Norway when she saw an udder that had been stretched across a wooden rim and perforated in order to make a sieve. The transformation of the udder into a utilitarian object inspired Cross to create a body of work “which drew on these animals’ rich store of symbolic associations across cultures to investigate the construction of sexuality and subjectivity.”24 The udders suggest, primarily, nurturing and suckling, but disrupt conventional readings of bovine imagery, such as wholesomeness, dependability or docility, when used to cover up everyday objects. Examples of such work include Cross’s transmutation of croquet balls in Croquet, shoes in Stilettos, a dressmaker’s mannequin in Amazon, a pillow in Lay Your Head Upon my Pillow, a Guinness bottle in Pap and ironing boards in Ironing Board I and II. Within each of these works, the artist has skillfully and elegantly transformed both the form and character of the original material in ways that elicit multiple figurative and metaphorical meanings. Art historian and critic, Patrick T. Murphy

23 Webster’s Dictionary, s.v. “transformation.”
summarily writes, “Cross’s rigorous observation of nature, both human and other, combined with her ability to extract beautiful and complex connections from objects, living and inert, found and made, creates a profound and compassionate poetry on contemporary existence.”

**Extended Life**

In October 2008, an early discovery in this process of enquiry was a sheep’s skeleton found on the shoreline of Black Head at the northern edge of the Burren. There was no flesh or hair attached to the bleached bones, only the white remains amongst the broken limestone rocks and pebbles of the coast. I gathered the entire skeleton and brought it back to my studio. Contemplating the forms and sizes of the diverse bones, I was intrigued by their apparent sculptural form, especially the abrupt edge of the rib bones. The portion that would have been attached to cartilage seemed to be broken off or incomplete. With the intent of creating a new sculptural entity, I decided to ‘complete’ several of the ribs. Because I discovered the skeleton in the Burren, I wanted to extend the bones with a material or materials that were also local to the area and related to the landscape. This sense of consciously connecting sculpture to the surrounding land was my first explicit engagement with ecology in an artistic setting.

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The bones were dry, brittle and stone white from exposure to salt water and the sun. Obtained from a local beekeeper, I used beeswax, a golden, malleable material to increase the length of the bones. Following its natural curve, I extended the bone by affixing, shaping and carving beeswax onto the edge of the rib. The assemblage of the disparate materials created a visual as well as material juxtaposition. The beeswax referenced flesh and created the illusion that the bones were triple their actual length. The aesthetic form of the sculpture was led by visually transformative concerns rather than biologically transformative concerns. In other words, the sheep’s bones and the beeswax were not altered in their chemical structure rather the juxtaposition of the materials transformed their aesthetic and visual qualities which resulted in the new sculptural entity. Unified as sculpture and placed precisely on a plinth, the forms evoke a sense of movement, which further transforms an otherwise inanimate material through animation.

As a final sculpture, *Extended Life*, transformed the materials and thereby their significance. This sculpture set a precedent for the transformation of animal matter in the later works that are exhibited in the PhD examination exhibition. Furthermore, this re-animation of dead animal matter considered as sculptural material led me to explore the potential that sculpture may express the principle of growth, although this piece of course remains inanimate. Specifically, contemplating the visual expression of growth in *Extended Life* led to me investigate the potential for working with and growing living organic material as a sculptural form in *Moving Moss Stones*.

Growth and *Moving Moss Stones*

*Moving Moss Stones* was a subsequent project that explored the principle of growth more explicitly than *Extended Life*. It grew out of the emerging potential for the growth of a sculpture. The precedent of David Nash’s growing tree sculpture, *Ash Dome*, informed the development of this work. As I have discussed this work in depth in Chapters 3 and 4, I will not elaborate further upon it except to say that like Nash, I sought to create a living sculpture that would continually evolve as the plant continued to grow. The growth of the moss and my artistic engagement were equal factors in the development and realization of this project. It was in this work that the ecological dimensions of sculpture emerged as an aspect of creative process and as much more than a mere contextual consideration.

Growth, “the act or process or a manner of growing”\(^{26}\) is also defined as “the development from a simpler to a more complex stage.” With *Moving Moss Stones*, I sought to create a more harmonious relationship with the natural environment, and thus I decided that the artwork created would be a temporary sculptural installation. I have borrowed the moss-

\(^{26}\) Webster’s Dictionary, s.v. “growth.”
covered stones for a period of time and will later replace them in their exact initial location. The process of moving the moss-covered stones, became central to the identity of this sculpture, which thereby extends the meaning of the sculpture beyond the visual appeal of the stones themselves. This was a very detailed and labor-intensive project. In order to return the stones to the exact place where I found them, I photographed, drew and numbered each stone.

With the permission of Mickey Vaughan, the farmer who owns the property, I moved over two hundred and fifty stones in total, from his field to the campus of Burren College of Art. Although the initial site was located two hundred yards from the college, I had to use my car to transport the stones because they were incredibly heavy. Some stones would fit into a pocket but others weighed upwards of 70 pounds, needed two people and a truck to move them.
As one of my first ecological acts made in the formation of a sculpture, I grouped multiple stones together in the college sculpture yard. However, that area was more exposed to the wind than the shaded tree alcove from which I removed the stones, and the moss began to quickly dry out and wither. I then grouped all the stones together hoping that the adjacency of the moss massed together would help to retain overall moisture. However, additional exposure to the wind and rain continued to severely wither the moss.
I then moved the moss-covered stones to a neighboring area and created a canopy with bamboo canes and muslin cloth to further protect it from the wind. Visually, the canopy resembled an impromptu first aid tent or intensive care unit reminiscent of a hospital. It also collected rain and slowly dripped the water onto the stones in a way that delayed the absorption of water and made explicit the moss’s dependence on moisture for survival. In this iteration, the sculpture was expanded as an installation rather than a selection of objects constructed through the act of transportation. The installation made explicit the moss’s dependence on adequate water and protection in relation to its surrounding environment in order to survive and thrive.
The moss-covered stones are still installed in this current location and will be returned after my final thesis exhibition. Prior to beginning this project, I had not taken into account the labor involved in caring for the plants. Because the project is based on borrowing, I feel obligated to return the moss-covered stones in an equal or better condition than when I first moved them. This has entailed over the past two years, watering the moss in dry conditions as well as providing adequate shelter and protection from the wind. Similar to the encased nurse log of Mark Deon’s *Neukom Vivarium*, the process of nurturing and maintaining this living sculpture has provided me with a deeper understanding of the precarious balance of and incredible efficiency ecosystems. It has also placed me, as an artist, in an engaged and participatory relationship with my surrounding environment. In this instance, the ecological dimension is core to the identity of this organic matter designated as sculpture and installation. However, like David Nash’s *Ash Dome*, I viewed the interaction with the moss to be fairly one-sided. There was a lack of ‘contribution’ on the moss’ part. As I discussed in my assessment of Nash’s
work, I believe the breadth of a plant species’ reactions within artistic contexts is limited to the plants’ ability or inability to grow within predetermined parameters. Although, the growth of the moss and my artistic engagement were equal factors in the development and realization of this project, the moss stone installation survived or wither based in part upon the locations I determined. The plant was to an extent at the mercy of my artistic decisions. Reflecting upon the strengths and weakness of this project, I created a list of artistic aims in order to developed and expanded my relationship, as an artist, to the surrounding land of the Burren. This list of aims and the resulting projects will be discussed in detail in the following chapter.
Chapter Six: The Ecology of Artistic Practice

“The intersection of ecological thinking with phenomenology, the momentum that drives each toward the other, begets a new cross-disciplinary inquiry: eco-phenomenology.”

Charles S. Brown and Ted Toadvine, *Eco-Phenomenology*

**Introduction**

This chapter discusses the continued evolution of my relationship with my surrounding environment as an artist. As described in the previous chapter, my initial sculptural investigation engaged ecology as a theoretical framework for analyzing the function and creation of an individual artwork. Addressing the ecology of an artwork, I examined the interdependence and interrelation of materials, the creation process, the intended concept and the final artwork. As a result of this examination, I scrutinized my artistic practice in relation the natural environment. Prior to this investigation, I would seek, gather or collect organic materials on hikes in the landscape. If I could not find the materials I desired, I would purchase them online, in craft stores or garden centers. The process of taking or buying elements of the landscape to create artwork felt oppositional to and removed from how I wanted to engage with the natural environment. Specifically, I felt my artistic practice was not ecologically based. Ultimately, this led me to understand the one-sided nature of my previous artistic practice and my emerging relationship to the surrounding landscape of the Burren. In order to develop and expand this relationship, I turned to phenomenology and specifically eco-phenomenology as a philosophical framework.

I begin this chapter with a discussion of eco-phenomenology, a relatively new philosophical enquiry, and the specific tenets that are relevant to my sculptural investigation of ecology. Scholarly research led to the discovery of and subsequent implementation of eco-phenomenology as a philosophical framework for my studio enquiry from the winter of 2009 to the winter of 2010. This chapter also discusses the landscape of the Burren so as to situate my doctoral research within its particular

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location. The discussions of eco-phenomenology and the Burren serve to clarify the key concepts that will be discussed as I then present, in chronological sequence, the sculptures that emerged from my process of research during this time. Addressing the ecology of my artistic practice, I discuss the five artworks created during this time, namely: *A Presentation of the Landscape, The Microscopic Photograph Series, The Culture of Paper, A Nest of Hazel* and *An Experience of Hazel*.

**Eco-phenomenology**

Eco-phenomenology is a school of thought that combines the historical precedents of phenomenology with contemporary ecological thinking. Eco-Phenomenology is based on two premises. Firstly, “that an adequate account of our ecological situation requires the methods and insights of phenomenology;” and secondly, “that phenomenology, led by its own momentum, becomes a philosophical ecology, that is, a study of the interrelationship between organism and world in its metaphysical and axiological dimensions.”

In Chapter One: *Land into Landscape*, a central discussion of phenomenology as an ecological concept explained the importance of Dasein, being-in-the-world, and Sorge, the nature of Dasein’s intentionality. The description of Dasein as a human being immersed in the visible and tangible world along with the immaterial world ultimately showed the notion of being-in-the-world to be an interrelated concept. Sorge, or care, as Heidegger articulated, is the characteristic of all our engagements with and of the world as well as other beings in the world. Elaborating upon this description, Frede succinctly described Sorge as the “structure of care - a holistic notion that we are beings-in-the-world and simultaneously part of an organic whole.” The conception of care allows us to see ourselves as a part, a whole part, in relation to the whole. In this respect Sorge is essentially an ecological concept. Finally I described how the interconnectedness of Dasein and the world could be further articulated through the ways in which human

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3 Ibid.
beings perceive and understand phenomena. We not only see ourselves as whole parts in relation to the whole of the world but we also view phenomena as part of this same interconnected world. Thus, phenomenology may be regarded as an ecological philosophy, when the generalized theoretical framework of ecology, the study of relationships, is applied.

The recent advent of eco-phenomenology, as a cross-disciplinary philosophy, combines ecological principles with phenomenological theory and application. Brown and Toadvine in *Eco-Phenomenology: Back to the Earth Itself*, write “as a contemporary method in philosophy, [eco-phenomenology] is particularly well suited to working through some of the dilemmas that have faced environmental ethicists and philosophers of nature.”

Through scholarly research, I have discovered that eco-phenomenology is equally relevant and beneficial to the development of my artistic practice. Although, this cross-disciplinary inquiry is still very new, in relation to the field of philosophy, I believe that with regard to the intersection of art and ecology, eco-phenomenology offers both theoretical and practical possibilities.

There are numerous analyses and interpretations of Heidegger’s, Husserl’s and Merleau-Ponty’s phenomenological theories. Similarly, eco-phenomenology, an ecologically-based philosophy has critics and supporters that have written of the strengths and shortcomings of applying phenomenological thinking to the complex relationships between humanity and the natural environment. To name a select few considerations, eco-phenomenology investigates the phenomenon of environmental authenticity, the significance of language, as well as the role of the body, in our experience of nature and assesses the traditional concept of intentionality as a means for describing our involvement with the natural world. In general, eco-phenomenology offers a diversity of approaches and proposals of how to engage with the philosophical problems raised by the current environmental crisis.

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5 Brown and Toadvine, *Eco-Phenomenology*, xi.
Through the course of my doctoral research, I did not find any written discourse that related artistic practices and eco-phenomenology. Therefore my discussion of an ecologically centered sculptural process in which Heidegger’s tenets of Dasein and Sorge are explored through eco-phenomenology and brought to bear in my sculptural investigation may be considered to be a contribution to the field. The nearest approximation was directed toward the disciplines of design and architecture in the collected essays of *Dwelling, Place and Environment* and *Dwelling, Seeing and Designing: Toward A Phenomenological Ecology*. Although written by architects, landscape architects, geographers, philosophers and ecologists, their discussions of eco-phenomenology were the most relevant to my investigation of the land and ecology. The themes within the two books included environmental awareness, environmental aesthetics, architectural experience and meaning, and environmental design. However, it was the essay by geographer Edward Relph, “Geographical experiences and being-in-the-world: the phenomenological origins of geography,” that proved most valuable and relevant to my enquiry. Specifically, it was Relph’s description of geographical experiences, his distinction between Heidegger’s notions of ‘presence-at-hand’ and ‘ready-to-hand’ in relation to the natural environment as well as his articulation of how people understand the world as derived from wonder and curiosity that informed and eloquently described my engagement with the landscape of the Burren.

In the introduction to the essay, Relph states, “The elucidation of Being requires not a rejection of scientific knowledge so much as an attempt to understand the relationships between scientific and pre-scientific consciousness.”6 This statement exemplifies the ways in which I sought to expand my relationship to the landscape. Between the winters of 2009 and 2010, I created parallel bodies of work. Although I have always been intrigued by the landscape and natural elements, I realized that my scientific understanding of the Burren was, to a degree, superficial. One avenue of the investigation of my surrounding ecology adopted scientifically-based approaches of organizing, categorizing and cataloging organic matter into small clear containers. Additionally, I

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used a microscope to analyze and photograph these organic materials on a different visual scale. As a completely different method for experiencing and knowing the land, I created a list of aims to engender a conscientious artistic practice. The works which employed scientifically-based approaches, *Boxes of Ideas* and *The Microscopic Photograph Series*, as well as the works which implemented solutions at fundamental levels of environmental intervention, *The Culture of Paper, A Nest of Hazel* and *An Experience of Hazel*, will be discussed in detail following this section.

A primary tenet of Dasein is that Dasein is always immersed in the environment and the world. It follows from this that a particular aim of eco-phenomenology “is to understand the nature of this immersion, which provides the touchstone and background for any formal, scientific consideration of environmental elements and interconnections.” Relph analyzes this immersion of being-in-the-world in connection with geography, namely what he terms geographical experiences. He states the term geographical experience “refers to the entire realm of feelings, acts and experiences of individuals in which they apprehend themselves in a distinct relationship with their environment.” More specifically, Relph articulates two modes of being-in-the-world in an eco-phenomenological application of Heidegger’s ‘presence-at-hand’ and ‘ready-to-hand’ or ‘readiness-to-hand.’ Relph describes ‘presence-at-hand’ in relation to scientific forms of enquiry, stating that curiosity is a dissatisfied understanding of the world that leads to exhaustive investigation. Scientific enquiry includes systematic observation, detailed analysis and measurement, experimentation, the formulation and testing of hypotheses. “To think about the world or entities of the world within it as abstract things is to render them subject to observation, to make them the object of casual curiosity and to distance oneself from them.” Although the mode of scientific questioning and analysis provides informative theories of the world, it “also dispels wonder. Wonder is the mark of a prescientific attitude - that is, of a compassionate intelligence that seeks to see things in and for themselves.”

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9 Ibid., 16.
The notion of a prescientific relationship refers to the everyday or immediate relationship that we have with our surrounding environment. Relph describes the nature of ready-to-hand as a more fundamental and less self-conscious mode of Dasein’s being-in-the-world. The activities such as walking, engaging, making, participating, holding and touching, attending to something and looking after it exemplify beings immersed in the world. “No matter how much we may reflect and abstract, we are already in a direct and immediate relationship with the world.”\(^{10}\) It is in this concernful relationship, or Sorge, the nature of Dasein’s intentionality that manifests things as ready-to-hand. Heidegger refers to things that are ready-to-hand as ‘equipment.’ He states, “When we take care of things, we are subordinate to the in-order-to constitutive for the actual useful thing in our association with it. The less we just stare at the thing called hammer, the more actively we use it, the more original our relation to it becomes and the more undisguishly it is encountered as what it is, as a useful thing. The act of hammering itself discovers the specific ‘handiness’ of the hammer.”\(^{11}\) It is necessary to combine our engagement with elements as both present-at-hand and ready-to-hand in order to facilitate both curiosity and wonder of the natural environment. I believe that this ultimately engenders conscientious actions toward and understanding of one’s relationship with the surrounding landscape.

In the conclusion of his essay, Relph proposes that we must heighten our awareness of our interactions and interrelations with the landscape. Additionally, he proposes that as individuals we ought to “attempt to convey to others the fundamental importance of marveling at the places of the earth.”\(^{12}\) Through my sculptures, I am conscious of conveying both the curiosity and wonder I have in my encounters of being in the land. It is important to note that while Relph’s essay was hugely important to my investigation of ecology and the landscape, his primary enquiry into eco-phenomenology is related to the phenomenological origins of geography. Thus, I have not comprehensively discussed his

\(^{10}\) Relph, “Geographical experiences”, 18.
\(^{11}\) Heidegger, \textit{Being and Time}, 65.
\(^{12}\) Relph, “Geographical experiences”, 29.
argument rather I have selectively chosen aspects that were pertinent to my artistic practice as related to the investigation of ecology.

In conclusion, Brown and Toadvine mention in *Eco-Phenomenology: Back to the Earth Itself* that eco-phenomenology has the potential to transcend disciplinary boundaries. They state “like phenomenology, before it, eco-phenomenology may also bear valuable fruit in cross-pollination with other academic disciplines and with fields outside the academy. In time, the insights of eco-phenomenology hold the promise of bringing about a dramatic shift in our current understanding of ourselves and of our place in the natural world.”13 The following section will discuss my application of an eco-phenomenological methodology within this research project, as a methodology for the sculptural investigation of ecology.

**The Burren Landscape**

The landscape of the Burren was vital to the research of this doctoral project. Notably, I believe it is the essence and results of my engagement with the natural environment and not the singularity of the Burren landscape that most informs my artistic practice. Nevertheless, it is necessary to briefly discuss the interconnectedness of the land, the agricultural and historical features which have shaped and continue to shape the ecology of the Burren. This will provide a rich account of the geographic location of and the basis of the bodies of work, *A Nest of Hazel* and *An Experience of Hazel*.

The Burren, or Boíreann in Irish, translates as “the rocky place.”14 It is located on the west coast of Ireland, to the south of Galway Bay in County Clare. Shaped over millennia by glacial, tectonic, solutional and human processes, the Burren spans 259 square miles of karst limestone landscape, formed approximately 340 million years ago under a warm, shallow sea. The characteristic elements of karst landscape are deep fissures in the sedimentary rock, called grikes, which separate the limestone into blocks called clints. Limestone is very susceptible to the effects of rain, which is slightly acidic. As a result,

heavy rainfall in the Burren has created the other dominant feature of the karst landscape called runnels, which are pictured below to the right. The landscape may appear to be barren exposed limestone, however, the Burren is known as ‘The Fertile Rock’ due to the rich diversity of flora and grasses that sustain numerous fauna including cattle, sheep and feral goats. Remarkably, over seventy percent of Ireland’s nine hundred native flora are found in the Burren, which represents only .05% of Irish landmass.

An important factor contributing to the rich floral diversity of the Burren is the traditional farming practice of ‘outwintering’ cattle on the uplands. Due to the extended growing season caused by the retention of heat by the larger masses of rock, the cattle, rather than being concentrated in sheds in the valley, graze the upland in the winter and are fattened by the nutrient rich grasses found in the grikes of the pavement. In a reversal of farming practices found elsewhere in Europe, the cattle are then moved back down to the valley in the summer. “This practice serves to remove potentially dominant grass and weed species, thus allowing the dormant herb flora sufficient light and resources to prosper over their flowering season, with little threat of being trampled by livestock.”

Outwintering has three very beneficial impacts on the ecology of the Burren. It preserves the unique mix of Alpine-Artic and Mediterranean flora including twenty-four orchid species that have made this landscape an esteemed botanist destination. The dispersed

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grazing of cattle also prevents the rapid spread of hazel known as hazel-scrub encroachment, which threatens not only the numerous archaeological sites found in the Burren but the biodiversity of the grasslands. In addition, outwintering is beneficial to the land because the animals’ dung is spread over hundreds of acres. If livestock are concentrated under sheds for extend periods of time, the waste must be turned into slurry. In the Burren, the topsoil layer that covers the limestone is very thin. If not spread across the fields in moderation or at appropriate times, the slurry will leach through the porous limestone pavement and contaminate the water table. Importantly, the five thousand year old practice of outwintering preserves biodiversity, the quality of the landscape and the ground water as well.

Although my engagement with the landscape of the Burren is ecologically based, the historical importance of the archaeological sites should be noted, not least because their preservation is interlaced with the conservation of Burren habitats and traditional farming practices. Out of an approximate five hundred known Neolithic wedge tombs in Ireland, seventy-five are situated in the Burren. In addition to over five hundred ring forts, notably Cahercummaun and Ballykingvarga, “hundreds of ancient cooking sites or fulachta fiadh and ancient cist graves are found throughout the hills”16 of Clare. Older than the Egyptian pyramids, and located within five miles of the Burren College of Art, the portal dolmen Poulnabrone, a burial chamber, houses the remains of thirty plus Neolithic persons.
Poulnabrone is arguably one of Ireland’s most frequented tourist sites and is rigorously maintained. However, a large number of less well-known archaeological sites are under threat from elements of the natural environment as technology is shaping modern agricultural practices. Integral to the Burren LIFE Project17, Brendan Dunford states, “Farms are being continually consolidated to form larger holdings, with the lower manpower available increasingly concentrated on mechanically accessible lowland areas, while uplands are simultaneously marginalized.” Importantly, the decrease in the practice

17 The BurrenLIFE Project has worked closely with Burren farmers and other experts to create a blueprint for farming in the Burren, through which farmers can earn a decent living from the land and continue their longstanding role as producers of quality food and custodians of a magnificent heritage and landscape. Source: www.burrenlife.com
of outwintering cattle, has led to the encroachment of hazel scrub on the uplands. As the hazel scrubs rapidly spreads, it damages the historical monuments and simultaneously eliminates the biodiversity of the grasslands. From the analysis of one plant, it is possible to understand the intricate and interrelated relationships between the Burren’s ecology, history and culture. One of the important artistic and ecological interventions of my practice involved removal of hazel scrub in the Burren National Park. I will discuss the works, *A Nest of Hazel* and *An Experience of Hazel*, in the following section.

**An Appropriation of Scientific Methods in an Artistic Investigation**

At the start of my investigation into ecology, I realized that my scientific understanding of the Burren was then superficial. As such, I appropriated scientifically-based approaches and applied them to my enquiry in order to develop my artistic practice. Most scientific activities pertaining to natural resources and the environment involve fieldwork and specimen collection. Over the course of three years, I went on numerous hikes throughout the Burren. The hikes lasted anywhere from an hour to all day. I revisited some places over a dozen times, others only once. During these hikes, I would draw, photograph and take sound recordings of the landscape. Additionally, I collected many ‘specimens’ which I then photographed through the lens of a microscope. I also placed the specimens into small containers to preserve, classify and organize them. The fieldwork, the collecting, the microscopic analyses and photographing increased my understanding of ecological processes, of the organic matter of the landscape and subsequently the organic media of my sculptures. Environmental artist, Mark Dion’s methodology, specifically his appropriation of archaeological and scientific methods, has informed my sculptural investigation of ecology. As I have discussed Dion’s practice in depth in Chapter 4, I will not elaborate further except to say that like Dion, I have appropriated scientific methods in order to develop my relationship to the natural environment and have implemented these methods in the creation and presentation of my sculptures. The artworks that emerged from these scientific engagements, *A Presentation of the Landscape* and *The Microscopic Photograph Series*, are discussed in the following section.
A Presentation of the Landscape

The installation of the collected specimens draws on the notions of scientific and natural history museum displays. The collection consists of bones from fauna including foxes, birds, sheep, mice, and cows among other organic matter. The installation also contains different examples of the coral reef fossils embedded in limestone rocks. There are birds’ nests, insects, shells, dried sprat, seaweed, sea urchins, and honeycomb. The boxes themselves rest on wooden shelves that have been reused or “upcycled” from scrap wood. The wooden tables, as well, were salvaged from the trash. For this installation, the found objects arranged in this manner are collectively a presentation, as distinct from a representation, of the landscape of the Burren. Importantly, the processes of creation and presentation incorporate environmentally conscious practices.

88. Eileen Hutton, A Presentation of the Landscape, 2010

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18 Upcycled products are made from unwanted or scrap materials that have been restored or reinvented to create a new object. Definition taken from Upcycled Website. http://www.upcycled.co.uk/. Accessed November 15, 2011.
89. Eileen Hutton, *A Presentation of the Landscape*, 2010

90. Eileen Hutton, *A Presentation of the Landscape*, 2010

91. Eileen Hutton, *A Presentation of the Landscape*, 2010
One of the most important elements of *A Presentation of the Landscape* was an invitation from Burrenbeo to exhibit this work within their Education Centre in Kinvara, Co. Galway. Burrenbeo is Ireland’s first landscape charity, whose “function is to promote and support the sustainable management and use of this unique landscape and heritage in an accessible, inclusive and effective manner.”¹⁹ For me the opportunity to exhibit my artwork outside traditional exhibition settings has meant that my sculptures and artistic practice have impact not only with regard to the environmental ecology of the landscape, but also have the opportunity to impact the social ecology of the Burren community. This relational dimension of the exhibition is a significant factor in the ecological character of the sculptures. Although the process of gathering, collecting, and categorizing ‘specimens’ from the landscape was an interesting process with informative results, for myself and the lay public who have seen my exhibition at Burrenbeo, I felt this work, ultimately, was not generated from a reciprocal relationship with the natural environment.

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The Microscopic Photographic Series

The following pictures were taken with a Digital SLR camera attached to a field microscope. The images are of bees’ stingers, bees’ tongues and bird feathers. The images, not manipulated in anyway, are printed on acetate and mounted in wooden light boxes. The differences in color and tone are due to the positioning of light above the microscope. The images derive from a borrowed scientific method of enquiry and engagement with landscape of the Burren. As with the work, A Presentation of the Landscape, the process of discovery and investigation of elements of the Burren within this project, afforded me a greater insight into my surrounding environment. However, upon reflection of this series of photographs, I felt that, once again, the works were not generated from a reciprocal relationship with the natural environment. This conclusion led me to reassess the artistic aims of my practice that resulted in the creation of the following three projects, namely: The Culture of Paper, A Nest of Hazel, and An Experience of Hazel.

93. Eileen Hutton, The Microscopic Photograph Series, installation view, 2010

94. Eileen Hutton, The Microscopic Photograph Series, A Honeybee’s Tongue, 2010
95. Eileen Hutton, *The Microscopic Photograph Series, A Blue Tit’s Feather*, 2010

96. Eileen Hutton, *The Microscopic Photograph Series, A Honeybee’s Stinger*, 2010

98. Eileen Hutton, *The Microscopic Photograph Series, A Honeybee’s Tongue*, 2010
Artistic and Ecological Interventions

Although the scientifically influenced methods of field study, the collecting, the microscopic analyses and photographing increased my understanding of ecological processes, of the organic matter of the landscape and the organic medium of my sculptures, I still felt that the my relationship with the landscape of the Burren was one-sided. Additionally, the works were not generated as the result of a reciprocal relationship with the natural environment. Through further consideration of my artistic practice and my relationship to the surrounding landscape during the spring of 2010, I developed a practical and philosophical framework based on the importance of experience, Dasein and Sorge with regards to phenomenology and specifically eco-phenomenology. The aims of my enquiry were revised to include the following: to examine current ecological concerns; to determine the issues that are within my power to change; to initiate accessible solutions that are relevant, meaningful and sustainable not only for myself but for others as well; to employ materials and processes in ways that exemplify my research; to create work that has impact within and outside of the art world. In these ways the enquiry’s focus on ecology was clarified. It was important to me that the process and final artwork should contribute solutions at a fundamental level of intervention. It was also critical that the proposed solutions be feasible actions others could integrate into their daily lives. The significant projects that resulted from my list of aims included The Culture of Paper, A Nest of Hazel, and An Experience of Hazel.

The Culture of Paper

My first project resulting from this revised list of aims was The Culture of Paper project, which addressed issues of the waste and consumption of paper at a local level. The fundamental principles of waste management, often termed the three R’s, are reduce, reuse, and recycle. Because the Burren College of Art at the time of this project already had recycling procedures in place, I decided to intervene at the levels of reduction and reuse on campus. Over a number of weeks, I observed at a large amount of paper thrown away daily and weekly. I decided to collect all the discarded paper and paper products over three months in order to reuse the paper as sculptural material.
The boxes I set up for this collection raised people’s awareness of the quantity and nature of what they were casually printing. This ultimately had the short-term and long-term effects of reducing paper consumption on campus. In general, people print documents that contain confidential information such as bank and insurance details, credit card numbers and government identification numbers. Students, faculty and staff were cautious of printing and discarding potentially private and secure information on such documents. In order to obscure any private information, many people shredded their documents into tiny pieces. Additionally, students who were self-conscious of printing out unfinished images of their work would take these images, misprints or poorly rendered images with them and not discard them in the marked boxes. The recycling bin was no longer the final destination for unwanted documents or artworks.
Importantly, when a person has to consider each time what is being discarded, they also becomes aware of the amount that is discarded. The collection boxes drew attention to the very basic, daily practice of throwing paper away. Students printed double-sided documents more frequently and began to use the blank backs of printed documents for scrap paper or note taking. A long-term effect of this project resulted in each computer in the student computer lab being set by default to print double sided documents.

The studio-based aspect of this project re-used or upcycled the discarded paper into a series of tree stumps. The intention for the sculptures was to create a visual association between the consumption and waste of paper and the original source of materials, trees. As I formed the series of tree stumps, I allowed the material to exist in its found state as much as possible so as to draw awareness to the amount of waste paper the BCA community was producing over a given period of time. In planning this project, I had not accounted for the rich colors, interesting imagery, and overall attractiveness of the waste paper to be found an art college, qualities that emerged as this project progressed. The sculptures as a resulted looked more like elaborate, fantastic cones or a tower-like forest than tree stumps. Ultimately, the forms were too aesthetically child-like to reference the distastefulness of over-consumption and waste of paper. My re-use of discarded paper did not therefore, communicate the methods or intention for the project. The processes of creation, namely the intervention at the level of reduction however, did have a small but meaningful impact on my college campus. With regard to the intentions of my doctoral project, this fascinating topic proved to be less rewarding as an avenue of research than expected. This body of work, however, did identify potential for further research albeit in a different direction. Although the processes of creation for The Culture of Paper were more ecologically based, with regard to reuse and reduction of waste paper, than my previous artistic projects, there was little to no interaction with the landscape of the Burren. As such, the work was not generated from a reciprocal relationship with the natural environment. Upon reflection of this project, my engagement with the land and landscape once again became the core of this research project.
The return of my enquiry to organic matter and medium materialized in a project that began when I participated in an environmental conservation effort along with the Burren Conservation Volunteers. The conservation effort involved the removal of hazel scrub in order to protect the grasslands of a particular region of the Burren, the Slieve Carron Nature Reserve. An organizational effort of Burrenbeo, the Burren Conservation Volunteers reinforce the fact that all local community members can all play a vital role in the preservation of the Burren and “become custodians of this unique landscape.” The uncontrolled spread of hazel within the Burren poses a threat to the unique mixture of Alpine, Artic and Mediterranean flora that are unique to the Burren landscape. A group of twenty volunteers worked for six hours to saw, chop and gather hazel scrub. At the end of the day, the pile of culled hazel measured thirty feet long and six feet high. Some volunteers took the hazel home as fuel for their fires, others for bean poles in their gardens. I took hazel back to my studio to create sculpture.

The first iteration of this hazel project resulted in the construction of *A Nest of Hazel*. My interest in the architecture and construction that exists in the natural world, such as birds’ nests, resulted in the creation of a six-foot high ‘nest.’ As the sculpture brought new life to the wood, it also raised awareness of a current ecological concern within the Burren, the spread of hazel scrub over the ecologically diverse and rich grasslands. Additionally, as the hazel was obtained in conjunction with the conservation efforts of the Burren Conservation Volunteers, the work provided a simple example of how an ecological threat such as encroachment may be addressed.
107. Eileen Hutton, *A Nest of Hazel*, the first iteration of the use of hazel, 2010


The second iteration of the hazel project, was an investigation into how I could more closely relate the sculpture, or in this case the installation, to my experience of how the encroachment of the hazel was affecting the landscape of the Burren. The installation was also created to convey my experience of culling the scrub as a participant alongside the Burren Conservation Volunteers. Installed in a passageway to height of ten feet, viewers were invited to enter the installation, to encounter the enclosing, hard and angular branches of the hazel cuttings. As with *A Nest of Hazel*, this project also raised awareness the spread of hazel within the grasslands of the Burren and provided an example of how an ecological threat such as encroachment may be addressed.


111. Eileen Hutton, *An Experience of Hazel*, second iteration of the use of hazel, 2010
The Ecology of Artistic Practice

The third iteration of the hazel project was the result of an invitation from Irish chef Darina Allen to exhibit at her culinary school in Ballymaloe, County Cork. The Ballymaloe Cookery School is surrounded by one hundred acres of an organic farm. The school and the farm’s mission statement maintains:

“We believe in the sustainable use of resources. We work ceaselessly to avoid waste. We use seasonal produce. We are extremely conscious of 'food miles' (the distance travelled by food between the farmer and the plate) and keep to a minimum the use of imported ingredients. We work hard to make sure that the school is environmentally sensitive as possible.”

Once again, the opportunity to exhibit my artwork outside traditional exhibition settings, specifically a location that shares similar values in relation to the natural environment, has meant that my sculpture and artistic practice have impact not only with regards to the environmental ecology of the landscape, but also have the opportunity to impact the larger social ecology of the Irish community, namely staff, students and visitors to the renowned cookery school and it’s accompanying restaurant and guest houses. Importantly, the third iteration of this project raised awareness in County Cork, of the hazel encroachment within the grasslands of the Slieve Carron Nature Reserve, part of Ireland’s National Nature Reserves. Although the project was initiated in and discusses an issue specific to the Burren, the conservation of the Burren grasslands is relevant to the larger biodiversity of ecosystems within Ireland. As with the other two iterations of this project, the work provided an example of how an ecological threat such as encroachment may be addressed. Although A Nest of Hazel conveyed an engaged and informed artistic relationship with the natural environment of the Burren, the work generated meaning and impact beyond a traditional exhibition setting and was relevant outside of the Slieve Carron Nature Reserve. This relational aspect of exhibiting the work stresses the ecological character of my developing sculptural process.

112. Eileen Hutton, *A Nest of Hazel*, installed at the Ballymaloe Cookery School, third iteration of the use of hazel, 2010

113. Eileen Hutton, *The Nest*, installed at the Ballymaloe Cookery School, top view of the nest, 2010
Reflecting upon the strengths and weakness of the three iterations of the hazel project, I questioned and ultimately concluded that the sculptures were not generated from a reciprocal relationship with the natural environment. Although I felt my artistic practice had evolved to be more ecologically based and engaged, there was still a lack of a dynamic relationship between the organic matter designated as materials, my process and the final sculpture. Akin to David Nash’s *Ash Dome* and my own project *Moving Moss Stones*, there was still a lack of ‘contribution’ or ‘involvement’ on the hazel’s part. The plants’ inability to participate in the creation of sculpture, other than as passive material, resulted once again in a reassessment of my sculptural investigation of ecology. The final two sculptures of my doctoral project, *The Collaborations with Blue Tits and Great Tits* and *The Collaborations with the Irish Black Honeybee* emerged out of this reflection and will be discussed in depth in the following chapter.
Chapter 7: A Sculptural Investigation of Ecology

Addressing the Relationships Between Sculpture, Artistic Practice, and the Land

“Art can provide us with a broader vision, communicate humanity’s greater potential, and be a force for social and environmental transformation.”


“We are human only in contact, and conviviality, with what is not human.”

David Abrams, *The Spell of the Sensuous*

Introduction

In the discussion of the two final projects of this enquiry it is necessary to first develop the theme and concepts of ecology, ecosystems and biodiversity. Notably, these are the key concepts that are explored and expanded through the two series of sculptures, *The Collaborations with Blue Tits and Great Tits* and *The Collaborations with the Irish Black Honeybee*. Importantly, this research project has taken a broad interpretation of ecology, informed by Guattari and extended as a creative process in sculpture. Thus, this chapter will discuss ecology in relation to ecosystems, biodiversity and my artistic practice. In order to experience, and not simply study ecology, it was necessary for me to engage and interact with the ecosystems and the biodiversity of life within the Burren. Specifically, my engagements led to ecologically based artistic interventions, namely the construction of artificial habitats for honeybees, Blue Tits and Great Tits in which I collaborated with these animals to create sculpture. This chapter concludes with a discussion of my contribution to fields of landscape representation and Environmental Art through the creation of the sculptures *The Collaborations with Blue Tits and Great Tits* and *The Collaborations with the Irish Black Honeybee*.

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The Ecology of Ecosystems and Biodiversity

If ecology is the scientific study of “the processes influencing the distribution and abundance of organisms, the interactions among organisms, and the interactions between organisms and the transformation and flux of energy and matter,” then an ecosystem is the actual community in which such processes, interactions and transformations take place. A strict definition of an ecosystem holds that it “is a highly integrated series of interactions between the nonliving earth and living organisms.” The term ecosystem refers to all of the living organisms within a particular environment and their interactions with the nonliving components of that environment such as air, soil, water and sunlight. All life, including humanity, depends on the functioning of natural ecosystems. Notably, ecosystems provide the purification of air and water, climate modification, the generation and preservation of soils, renewal of soil fertility, as well as seed dispersal, pollination of crops and vegetation, in addition to the maintenance of biodiversity. One of the most important factors of an ecosystem is its interrelation with biodiversity. Biological diversity, or biodiversity, is the “variety, number or abundance of plants and animals and other living things in a particular area or region.” An ecosystem is sustained by the biodiversity of life within it and biodiversity is dependent upon the health of the ecosystem. This interrelation and interdependence is analyzed through a scientific paradigm known as the ‘biodiversity-ecosystem function paradigm,’ or BEFP. Research within BEFP determines “how biodiversity affects the performance level, stability, and redundancy of multiple ecosystem functions, rather than attempting to tease out the effects of diversity on single functions such as primary productivity or biogeochemical cycling. The results show that overall ecosystem functioning is more sensitive to species loss than single functions, and that biodiversity really represents ‘multifunctional complementarity’ among species. In other words, biodiversity is highly interactive with ecosystem functioning, different species having different impacts, but all species having some impact.”

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Ecologists state that the impact or influence of an individual species is somewhere on a continuum between keystone and non-influential. A keystone species is disproportionately influential in relation to its abundance as it “affects the survival and abundance of many other species in a community. Its removal results in a significant shift in the composition of a community, and sometimes even the physical structure of the environment.” There are typically only a few keystone species within any particular ecosystem. Notably, the species I collaborate with artistically are priority species, not quite at the level of importance of keystone species, but fundamental to the ecosystem of the Burren nonetheless. According to the Joint Nature Conservation Committee, “priority species are species of high nature conservation value that are restricted in range, have suffered significant population declines in the past or have a significant impact on their surrounding environment.” In the following section, I will discuss the significant function of honeybees, Blue Tits and Great Tits and explain how the creation of artificial habitats supports the biodiversity of the ecosystems in the Burren.

However, it is first worth articulating the critical importance of biodiversity, specifically in relation to the provision of ecosystem services, biological resources and cultural benefits. “Strong and healthy biodiversity within ecosystems is responsible for the protection of water resources, soils formation and protection, nutrient storage and recycling, pollution breakdown and absorption, contribution to climate stability, the maintenance of ecosystems and a quicker recovery from unpredictable events.” Those specific benefits are termed ecosystem services. Biological resources include food supplies, for human beings as well as for livestock, medicinal resources, pharmaceutical drugs and natural resources such as wood, fossil fuels and heavy metals. Furthermore, other benefits of a robust biodiversity include cultural, or non-material benefits, such as the aesthetic or spiritual value individuals place on the natural environment, the

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educational and research value, as well the recreational and tourist related use of ecosystems. “There is general agreement among ecologists that anthropogenic activity resulting in loss of habitats is the major cause of the on-going global decline in biodiversity.”  

According to the National Wildlife Federation there are three main types of habitat loss, specifically habitat destruction, habitat fragmentation, and habitat degradation. Habitat destruction is the process by which habitats are damaged or destroyed to such an extent that they cannot sustain the life within them and thus species are displaced or eliminated. This occurs through the processes of mining, logging and deforestation, filling in of wetlands, dredging rivers and mowing fields.

The fragmentation of terrestrial habitats occurs when land is converted for agricultural development, the construction of roads, industrial sites and urban sprawl with regard to extensive housing estates, shopping malls and parking lots. Aquatic habitat fragmentation occurs through the construction of “dams and other water diversions [which] siphon off and disconnect waters, changing hydrology and water chemistry.” If habitats become significantly fragmented biodiversity is compromised, as certain species may not have the adequate territory to forage for food or to mate. In addition, migratory species may not have the necessary resting or feeding places along their seasonal routes.

Furthermore, the reduction and loss of biodiversity also occurs through habitat degradation as a result of environmental pollution and the influx of invasive plant and animal species. “Pollutants such as untreated sewage, mining waste, acid rain, fertilizers and pesticides concentrate in rivers, lakes and wetlands and eventually end up in estuaries and the food web.” Additionally, the release of chemicals such as “1.5 billion tons of

14 Habitat refers to the range of resources that a species needs to maintain a viable population including sufficient territory, necessary food and water, and required physical features such as tree cover, rocky hills or deep pools, as well as the organisms and ecosystem disturbances that must be present for it to complete its life cycle. Source: “Habitat Degradation and Loss” Biology Online Website. www.biology-online.org. Accessed December 2, 2011.
16 Ibid.
carbon released into the atmosphere each year... contribute to climate change.”\textsuperscript{17} Climate change, according to the National Oceanic and Atmospheric Administration (NOOA), “is a long-term shift in the statistics of weather.”\textsuperscript{18} They state, “The last decade of the 20\textsuperscript{th} century and the beginning of the 21\textsuperscript{st} century have been the warmest period in the entire global instrumental temperature record, starting in the mid-19\textsuperscript{th} century.”\textsuperscript{19} Although there is not consensus among scientists as to the causes of climate change, the fact remains “that glaciers have shrunk, ice on rivers and lakes is breaking up earlier, plant and animal ranges have shifted and trees are flowering sooner. There is a loss of sea ice, accelerated sea level rise and longer, more intense heat waves.”\textsuperscript{20} The recent change in climate and the degradation of many habitats have severe implications for biodiversity.

Invasive species also degrade habitats and reduce biodiversity namely because they out-compete native species either in relation to the consumption of local resources or because they are aggressive predators. “Invasive species are so regarded because they are relatively free of predators or pathogens and undergo a kind of ‘ecological release’ when they colonize”\textsuperscript{21} a given habitat. Degradation is not the complete destruction of the habitat, but its effect has a severe impact on the native species and ecosystem function of a given area.

On a global level, there are numerous scientific, technological and political solutions aimed at the prevention of further habitat and environmental degradation. A short but fundamental list of such critical solutions includes, governmental implementations of carbon emission and clean air policies, water regulations aimed at conservation and preservation and the replacement of fossil fuel dependency with technologies that utilize renewable resources. Additionally, there are international organizations that endeavor to

\textsuperscript{17} Lester R. Brown, \textit{Plan B 4.0: Mobilizing to Save Our Civilization} (New York: W.W. Norton and Company, Inc., 2009), 198.
\textsuperscript{19} Ibid.
\textsuperscript{21} Kricher, \textit{The Balance of Nature}, 176.
prevent further habitat destruction and fragmentation, such as the Nature Conservancy, the World Wildlife Fund and Conservation International. These organizations work towards the conservation and protection of priority habitats worldwide such as tropical rain forests, coral reefs, fresh water systems, and productive fishing grounds. The conservation of these habitats also protects the biodiversity of life and endangered species within these areas. Furthermore, there are personal and local solutions that minimize environmental impact and degradation. These include but are not limited to the reduction of each individual’s consumption of material goods and non-renewable resources, adherence to the ‘reduce, reuse and recycle’ concept and cycling instead of driving.

Mostly importantly with regard to my doctoral research, there are local solutions that help to counter the effects of habitat fragmentation and destruction. One such solution entails building artificial habitats for priority species. Although not a comprehensive discussion of ecology, ecosystems, biodiversity or the solutions, which counter the effects of species loss, this overview provides the insight into humanity’s reliance on and the necessity for a flourishing biodiversity that is required to understand my two subsequent series of sculptures.

A Critical Consideration of My Artistic Collaborations with Animal Species

My sculptural collaborations with Irish Black Honeybees, Blue Tits and Great Tits are single collaborations in that I have initially conceived the project, which is then developed in conjunction with various animal species. Notably, I consider these works of art to be generated from a collaborative practice. Although the term collaboration applied to my engagements with honeybees and birds may be seen as problematic, I maintain that it is the closest approximate term to describe the ecologically-based, reciprocal relationships developed as part of my artistic practice. Furthermore, it is applicable to the methodologies of my practice as it proceeds from an art historical precedence discussed in Chapter Four in which established artists working with animal species refer to their artwork as collaboratively created.

With regard to The Collaborations with the Irish Black Honeybee, the honeybees and I share an ultimate goal - the creation and systematic structuring of honeycomb within the
A Sculptural Investigation of Ecology

top bar hive. The honeybee undoubtedly constructs the hexagonally shaped cells for the purposes of honey and pollen storage as well as chambers that house brood. The function of the honeycomb for the bee is essential to the perpetual continuation of its species. For me as an artist, the teardrop shaped honeycomb functions as sculptural form when removed from the hive and placed within an exhibition setting. Clearly the intentions and purposes for the function of the honeycomb are vastly different, however the resulting end product is honeycomb constructed within a top bar hive.

I argued in Chapter 4: Contemporary Environmental Art, that action is required on the part of at least two agents in the creation of artwork in order for the process to be considered collaborative. I also argued that for an artist to collaborate with non-human species requires, at the very least, a degree of voluntary participation on the part of the non-human species. In my discussion of David Nash’s Ash Dome and my own work Moving Moss Stones, A Nest of Hazel and An Experience of Hazel, I established that plants and trees are not capable of voluntary participation. Specifically, I stated that collaborating with plants and trees is virtually impossible as there is no appropriate determination for understanding the range of a plant’s reactions to a given set of circumstances. The breadth of plant species’ reactions within artistic contexts appears limited to the plants’ ability or inability to grow within predetermined parameters. Living or dying is not enough of a contribution to the realization of an artistic project to be called a collaborative effort. Finally, I stated that successful collaborations between artists and non-human species are best realized with animal species.

With regard to The Collaborations with the Irish Black Honeybee, as I will explain, it was the honeybees’ determination of where the comb would be built that in part created the honeycomb sculptures - a voluntary participation. I relinquished a large degree of control over the final outcome of the sculptures so as to allow for the simultaneous convergence and juxtaposition of the human and non-human methods of creation. Also as I will discuss, in lieu of the fact that my first hive swarmed, I consider this to be an active decision on the honeybees to no longer dwell in the habitat I constructed. The swarming, an indication of a healthy hive, resulted in the termination of our collaboration. These are
two instances of an active and voluntary participation or non-participation, on the part of the honeybees in the collaborative creation of sculpture.

With regard to *The Collaborations with Blue Tits and Great Tits*, the birds and I also share the ultimate goal of a nest built inside the nesting box. For the birds, the nest functions as a sheltered environment to lay eggs and rear their young. When the birds abandon their nest, its function for them has been fulfilled. For me as an artist, the abandoned nest brought into an exhibition context then functions as an art object. The nest as artwork is simultaneously symbolic of as well as a byproduct of the reciprocal relationship between the birds, the ecology of the Burren and myself. Once again the intentions and purposes for the function of the nest are vastly different, however the desired end result is the same nest albeit with multiple functions.

Additionally, my sculptural collaborations with the Blue Tits and Great Tits are also the result of voluntary participation on the part of the birds. Like the collaboration with honeybees, the creation process also involved me relinquishing a large degree of control over the final outcome of the sculptures so as to allow for the simultaneous convergence and juxtaposition of the human and non-human methods of creation. As I will state, out of thirty possible opportunities to collaborate with blue tits and great tits, twenty hexagonally shaped nests were created. That number specifically means that ten boxes over two nesting seasons were not inhabited. The birds did not nest, possibly due to undesirable locations, in those particular nesting boxes, all of which were identically constructed. This is another example voluntary non-participation in the creation of sculpture. Additionally as detailed in the following sections, during the second nesting season, the birds did not take any significant amount of the materials I provided for their use in the construction of the nests. Based on observation of the final hexagonally shaped nests, I will explain that a generous estimate holds that their nests were constructed with .05 percent of the provided materials, a brightly colored feather here, a bit of dyed wool there, along with a sparse use of the cow and synthetic hair. Once again, this is an example of non-participation on the part of the birds. However, in each instance the
birds’ did nest, resulted in the creation of a collaborative sculpture, a hexagonally shaped nest, which is product of my labor combined with the bird’s labor.

**My Ecological and Artistic Engagement with Priority Species in the Burren**

As previously stated in Chapter 4, I do not hold my artistic practice to be relational in the sense advanced by Bourriaud. However, I do strongly identify with his statement that “The role of artworks is no longer to form imaginary and utopian realities, but to actually be ways of living and models of action within the existing real, whatever the scale chosen by the artist.”

My practice endeavors to be a way of living and model for action through my artistic collaboration with honeybees, Blue Tits and Great Tits and the creation of artificial habitats that supports the biodiversity of the ecosystems in the Burren. That is to say, as a result of this enquiry, my sculptural practice has become intrinsically ecological in innovative ways.

John Dewey writes of nature and experience that:

> “Experience is *of* as well as *in* nature. It is not experience which is experienced but nature- stones, plants, animals, diseases, health, temperature, electricity, and so on. Things interacting in certain ways are experience; they are what is experienced. Linked in certain other ways with another natural object- the human organism- they are *how* things are experienced as well. Experience thus reaches down in to nature; it has depth. It also has breadth to an indefinitely elastic extent.”

In order to experience, and not simply study ecology, it was necessary for me to engage and interact with the ecosystems and the biodiversity of life within the Burren. I wanted to create art that had a beneficial impact on my surrounding environment, more than that I wanted to create art in conjunction with my surrounding environment. In short, my work became part of the ecology of the Burren. As I detailed in Chapters 5 and 6, my initial interactions were with plant species, namely moss and hazel scrub. As a sculptor, I became interested in the idea that I could potentially build or sculpt with animal species. Many animals build. To name a few, spiders construct intricate webs; beavers build

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dams; terrestrial and aquatic invertebrates build their own shells and caterpillars weave cocoons. However, the potential for interaction with these species seemed limited given the indeterminate locations of their construction. Also these particular species are not keystone or even priority species within the ecosystem of the Burren. My research into ecology, ecosystems and biodiversity revealed the importance of honeybees, Blue Tits and Great Tits as priority species. Importantly, these particular animals ‘build’ and do so within artificial habitats. I thus realized the potential to collaborate with them inside these habitats in order to create art. The resulting sculptures are generated from a reciprocal relationship with the natural environment of the Burren.

**The Native Irish Black Honeybee**

Honeybees are important to the biodiversity of the natural environment and to humans as well. They are, in part, responsible for over one third of all the food humanity consumes or “in terms of weight, 35% of the world food production comes from crops which depend on insect pollination.” These crops include the majority of fruits, vegetables, oil and protein plants, nuts, spices and stimulant crops like coffee and cocoa. Notably, bees do not aid in the propagation of other food sources such as the cereal grains oats and barely or in the production of food that is of animal origin such as dairy, eggs, meats and fish. However, the Food and Agricultural Organization of the United Nations (FAO) recently “estimated that out of 100 crop species which provide 90% of food worldwide, 71 of these are bee-pollinated.”

Butterflies, moths, and flies are also responsible for pollination, however, bee species, both managed and wild, are the predominant and most economically important group of pollinators in most geographical regions. “According to a recent study by the Department of the Environment, the pollinator services bees provide are worth an estimated 85 million euro per annum to the Irish economy.”

Bees are also responsible for the pollination of native Irish plant species, notably the rare Alpine-Artic and Mediterranean flora and twenty-four orchid species found in the Burren.

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25 National Biodiversity Data Centre.
27 National Biodiversity Data Centre.
However, “more than half of Ireland’s bee species have undergone substantial declines in their numbers since 1980. The distribution of forty-two species has declined by more than fifty percent.” This statistic includes bumblebees, solitary bees, and honeybees. Currently, Colony Collapse Disorder or CCD, has had a devastating impact on worldwide honeybee populations particularly in the United States but also in France, Belgium, the Netherlands, Italy, Greece and Spain. Emerging in 2006, CCD is a “phenomenon characterized by a rapid collapse in which the vast majority of the adult bees disappear from the hive.”

Other attributes of CCD include the lack of significant numbers of dead bees found in or around the hive, plenty of honey and pollen stores, and capped brood comb. It is as if the hives have simply disappeared. “The causes of colony collapse disorder are not fully understood but are proposed to include mites and diseases, malnutrition, pesticides and migratory beekeeping.” Fortunately, no cases of CCD to date have been reported in Ireland.

However, Irish wild bees, namely bumblebees and solitary bees, as well as the managed honeybees, have recently declined in population due to three factors. “The primary reason is habitat loss, particularly the loss of flower rich grasslands,” through agricultural and urban development as well as the spread of hazel scrub in the Burren discussed in Chapter 6. The fragmentation of remaining habitats additionally prevents bees from moving around the landscape. In conjunction with habitat loss, the next most important factor contributing to the decline of bee population is the significant decrease of wildflowers within the Irish landscape. “This is due to changing farming practices, particularly intensification and the movement from hay to silage,” as well as the lack of wild flowers allowed to grow in field corners, along roadsides or in gardens. A third factor is related to the use of pesticides which act as stressors, making bees more susceptible to parasitic, microbial and viral attacks. Specifically, The Independent

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30 Ibid.
31 Ibid.
recently reported increasing concern from the British government regarding neonicotinoid pesticides in relation to two independent studies that “have recently found that neonicotinoids can significantly weaken honeybees and make them more prone to lethal infections.”32 Similar pesticides are used throughout Ireland and should be treated with the same concern.

Finally, with particular regards to the Native Irish Black honeybee, a significant portion of their decline is attributed to the varroa mite “which are thought to be responsible for the spread of deformed wing disease and acute bee paralysis virus.”33 Accidentally imported, the first case of the varroa mite was identified in County Sligo in the late 1990’s. All of these factors have contributed to recent bee population declines. However, it bears repeating that a solution, which counters the effects of habitat fragmentation and destruction, is the building of artificial habitats for priority species. Honeybees are such species and non-commercial or small-scale beekeeping within artificial habitats supports the biodiversity of the ecosystems.

**Hive Systems and Sculptural Form**

Traditionally, beekeepers maintain hives based on the national hive system. This designates specific dimensions of the wooden structure used to house the bees. Each box, fifty centimeters square, contains ten frames of comb that are thirty-five centimeters wide and twenty-two centimeters long. Within this system, the frames are fitted with thin sheets of wax that are imprinted with a uniform hexagonal pattern. The bees then build upon these one-sized prefabricated cells. The queen lays certain eggs depending the size of the cell that the worker bees have constructed. Smaller cells are filled with worker larvae, honey or pollen and larger cells are filled with drone larvae.

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However, there is a difference in ratio of the cell structure of managed bees within the national hive system and wild bees. Wild honeybees build approximately twenty percent drone comb while managed honeybees build approximately ten percent drone comb. “Nontraditional and natural comb beekeepers know that although the drones’ primary function is to mate with the queen, they believe they [drones] may also be responsible for helping to regulate a consistent hive temperature.”\(^{34}\) The larger body of the drone, equipped with a larger wingspan can warm or cool a greater proportion of air inside the hive. This is a single but critically important distinction between the national hive system and the top bar hive system. It is also important to note the aesthetic differences between these two hive systems. Sculpturally, honeycomb produced in a national hive is a formulaic grid that is consistent and predictable. In the following section, I will explain how honeycomb is formed within a top bar hive system and the sculptural potential of using such a system.

As a beekeeper myself, I have adopted a method called Barefoot Beekeeping\(^ {35}\), which is an alternative approach to commercial beekeeping that has a much greater potential for the creation of sculptural form. The term barefoot is used as a metaphor for a simplistic, sustainable approach to small-scale beekeeping using top bar hives. For this doctoral project, I built the wooden structure of the hive from plans provided within *The Barefoot Beekeeper*. It is three foot in length and shaped like a watering trough with an angled


\(^{35}\) Ibid., 8.
roof. The top bar hive does not use prefabricated sheets of wax in the frames. Rather, it allows bees to build comb as they would in the wild. Therefore, there is a much greater potential for diversity of form than can be the case in the national hive system.

Barefoot beekeeping is based on three core principles. The first is that interference in the natural lives of bees is kept to a minimum, meaning that hive inspections from the spring through to the autumn are not performed every seven to nine days as within the national hive beekeeping. Chandler states “There is no need to dismantle the colony every week, every other week or even every month, so long as external signs of colony health are positive. Removing bars from the brood nest is extremely disruptive and should only be done when really necessary such as when queenlessness or disease is suspected.” The second principle is that nothing is put into the hive that is known to be, or likely to be harmful to either the bees, to human beings or the surrounding environment. This includes any chemicals or pesticides. Part of this principle is that nothing is taken from the bees, honey, pollen, or wax, which they cannot do without. The last principle and guiding doctrine of barefoot beekeeping, is based on the idea that bees, which have been in existence in something similar to their present form for forty million years, know how to regulate their hives. It is the beekeeper’s job to literally listen to them. Chandler qualifies the difference sounds individual bees and the hive as whole can make.

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“The difference in both pitch and volume between the wing notes in a bee attacking mode and that of one who is merely curious is one of the first and most useful distinctions. Then there is the ‘roar’ when a hive is tapped with a knuckle, which gives you information about the number of inhabitants and their general state of alertness. If the roar continues beyond a second or two and then develops into an overall hubbub, this may be a clue that the colony maybe queen-less. A healthy hive of docile bees has a characteristic, contented hum, that is the most pleasant and relaxing sound the beekeeper will hear.”

Finally, intertwined with listening to and understanding the condition of one’s hive is the obligation to provide optimum conditions for their wellbeing. This includes access to fresh water sources, a location that shelters the hive from extreme elements of sun, wind and rain, and the provision of insulation during extremely cold winters. According to Chandler and the ethos of barefoot beekeeping, this provides the greatest potential for a healthy colony. A healthy colony pollinates multiple plants and “in conjunction with [these] local plants, helps produce an abundance of nuts, seeds, fruits berries, et cetera, so the birds and other wildlife living in the area have plenty to eat. Because many of the seeds and nuts that are not eaten will develop into a variety of flowers, herbs, bushes, and trees,” the biodiversity and ecosystem of the Burren are strengthened, on a modest scale, as direct result of my honeybee hive.

The Sculptural Collaborations
Although, I began beekeeping and collaborating with the honeybees in the summer of 2010, I did not discover the works and practices of other ‘bee artists’ Aganetha Dyck, Hilary Berseth, Tomas Gabzdil Libertiny, until the spring of 2011. Unlike the works of these artists my sculptures are generated through a reciprocal relationship with the natural environment. My contribution to the field of enquiry, specifically to the field of sculpture created in collaboration with honeybees, is mainly through this important distinction from my predecessors.

In order to encourage the honeybees to build comb on the top bar of a top bar hive system, one would typically nail a thin strip of wood onto the underside of the bar and

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then coat it with wax. However, I nailed various patterns of rectangular, square and circular wooden protrusions on to the top bar with the hopes that the bees would build only onto the protrusions provided to create various ‘stalactite’ formations. As this was my first intervention, I was cautious and conscientious of placing objects into the hive that would be deemed obstructive to the natural lives of the honeybees.

118. The first four altered top bars, with various rectangular, square and circular wooden protrusions.

119. The honeybees building three tear drop shaped lobes of honeycomb around the circular wooden protrusions.
Within the hive, honeybees like to maintain what is typically called a ‘bee space,’ or approximately 1 cm or 3/8\textsuperscript{th} of an inch between the frames of comb. Knowing the preference that bees have for this, I spaced the frames about 2 cm apart to encourage the bees to build a second layer of comb onto a single top bar. The result is the lighter colored second tear shape. Secondly, I limited the amount of empty bars within the hive. The bees searching for an area to build honeycomb built on top of the bar resulting in the white crown like structure on the top bar. In this way, my investigations have taught me how to predict the sculptural form of honeycomb that honeybees will build under various conditions.

120. A standard frame of honeycomb taken from a national hive.

121. The first honeycomb sculpture displayed in an exhibition.
The structure on which the honeycomb sculpture is mounted in Figure 121, was built as a utilitarian necessity while I was first learning how to properly check the frames within the hive. Because the honeycomb while in the hive is soft and malleable, the lack of an exterior frame as a supporting structure such as in a national hive, leaves the comb vulnerable. The collapsible holder I constructed allows me to inspect the comb and the bees' health without damaging the delicate comb. The accuracy and skill of the honeybee's hexagon is juxtaposed against my crude frame holder. The entire sculpture is evocative of the relationship between myself, as beekeeper and artist, and the bees as collaborators.
124. A detail of the white crown structure of the honeycomb sculpture.

125. Detail of the double layer of honeycomb on a single top bar.
In April 2011, Ireland had an unusually warm spring and the bees began to forage for food earlier than normal. I inspected my hive in the first week of April, found that they had survived the winter well, and indeed had almost doubled in population. I then added a few more top bars in order to give them adequate space. However, the weather in May turned unseasonably cold. In talking with other beekeepers in the area, I learned this sudden change in weather, after the honeybees have come out of their winter dormancy, can create unrest within the hive. As soon as the weather becomes somewhat mild again, in all likelihood the bees will swarm. Swarming is the result of a colony reaching “a certain size and density, approximately thirty six bees per cubic inch. New queens are reared in special extra large queen cells and are fed an enriched diet of brood food also known as royal jelly.”^39 Shorty before any new queens hatch, scout bees seek out potential new nest sites. The old queen then leaves the hive with approximately two thirds to three quarters of the colony (10,000 to 20,000 bees) and creates a new nest elsewhere. Once the bees arrive at the new nest site, they immediately begin to make comb. “They are able to do this because, before leaving the old nest, they gorge themselves on honey, each bringing with them an average of 36 mg, roughly forty per cent of the bee’s weight.”^40

When I inspected my hive at the end of May, I found all of the honey stores gone, little to no brood comb and only one hundred bees at most within the hive. My hive had swarmed. Although initially upset, I learned there were three positive outcomes of the bees’ swarming. Firstly, a swarm is a sign of a healthy and robust colony. This meant I had provided the optimum conditions for my honeybees to thrive. Secondly, when the bees swarmed they would have created a new nest in the Burren which bolstered the wild native Irish Black Honeybee population. Lastly, because they had taken all of their stores, I was left with six sculptures. If the bees had stayed within my hive, I would have taken three sculptures from them at most so as not to deplete their stores, compromise their habitat, or negatively impact the overall health of the colony. Over the course of ten months, the bees, with guidance and adjustments on my part, created six honeycomb

^39 Heller, The Beekeeper’s Bible, 114.
^40 Ibid., 116.
sculptures. Strangely out of the six, there were three pairs that were similar in color and appearance, thus I installed them as reciprocal forms, two equal parts that create one entire sculpture. Each sculpture is accompanied by a sound recording of my process of beekeeping combined with the hum of the colony. The hexagonal cells amplify the recording, and are evocative of the relationship between myself, as beekeeper and artist, and the bees as collaborators.

126. One of three honeycomb sculptures generated as a result of both the honeybees’ and my labour.
127. The second of three honeycomb sculptures generated as a result of the honeybees’ and my labour.
The comb of the third sculpture is much lighter because it was the newest comb the bees had made. As the bees use and reuse comb it becomes darker, in a sense stained. At the time of writing, I currently have a new colony of bees in the same top bar hive structure that I have been collaborating with since the early part of August 2011. All going well, the new sculptures should be ready by mid-July 2012.
Finally, a result of my artistic and ecological engagements with the Irish Black Honeybee has been the bolstering, at a modest level, of biodiversity of the Burren. The sculptures created in collaboration with the bees not only highlight the importance of honeybees, they are also evocative of an informed and engaged relationship with the natural environment. Ultimately, it is my hope that these collaborative sculptures serve as a model for environmental action, specifically in relation to the conservation of honeybees, for the lay public who view my sculptures within and outside an exhibition setting. The enquiry of this project and the sculptural collaborations with the Irish Black Honeybee, were one manifestation of how my sculptural practice has become intrinsically ecological in innovative ways. The following section describes the other important ecological and artist interventions made during my investigation of ecology, as well as my sculptural collaboration with other priority species, the Blue Tit and the Great Tit.

**Blue Tits and Great Tits**

Birds are important to the ecosystem as they “provide an accurate and easy to read environmental barometer allowing us to see clearly the pressures our current way of life is putting on the world’s biodiversity.” They are major seed dispersers as well as pollinators and thus play a significant role in maintaining plant community structure and diversity. Because of their ecological significance, the second of my final two projects involved a sculptural collaboration with two significant bird species, namely the Blue Tit and the Great Tit. Many bird habitats are currently threatened due to intensification of industrial scale agriculture, building and construction sites. Logging and the replacement of natural forests with mono-crop plantations also have a devastating impact on birds’ natural habitats. In addition, recent cold and wet weather conditions have contributed to drastic decline of certain bird species. According to the Royal Irish Academy Climate Changes Science Committee, in 2009, Ireland had the most extreme weather conditions.

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recorded in forty-seven years.\textsuperscript{42} The intense cold and wet has severe implications for small birds such as the Blue Tits and Great Tits. Notably house sparrows, which share similar nesting, habitat and food preferences as Blue Tits and Great Tits, have declined in significant numbers over the past thirty years. Like Ireland, the U.K. also shares a similar overall weather and climate patterns. It is worth noting that the International Journal of Avian Science reported a fifty percent decline in the British house sparrow population since 1979 as a result of urban development and changes in farming practices.\textsuperscript{43}

In addition to being important seed dispersers and pollinators, small birds are also the top species for eating insects that can destroy crop yields such as aphids, leaf miner grubs, and green tortrix moths. A significant decline in their population would have severe implications with regards to the biodiversity of an ecosystem. However, the conservation of bird species is effective and relatively inexpensive. Direct action in re-establishing habitats and nesting sites for birds saved sixteen bird species from extinction between 1994 and 2004.\textsuperscript{44} Notably, “many different artificial nest-sites have been successful, such as nest ledges and cavities for cliff nesting species, platforms, and stick nests for tree nesting species, artificial stick nests for tree nesting species, artificial burrows for


terrestrial hole nesters, rafts for wetland birds, and nesting boxes for a whole range of cavity nesting species. 45

My second of the two final investigations of ecology and interaction with the ecosystem of the Burren, was realized through building artificial habitats for Blue Tits and Great Tits. As I was doing research on honeybees and their construction of their hives, I studied the hexagonal form of their cells and wondered at their economical and beautiful form. I discovered that the hexagon is found throughout the natural world. It is the shape of basalt, a volcanic rock formation such as is found at the Giants’ Causeway in Northern Ireland. The majority of snowflakes, being six-sided are also the shape of a hexagon. Additionally, turtle shells and the nucleotides of the double helix in a DNA strand are both formed as hexagons. It is presumed the reason for this, is that the form is the most efficient shape for holding the most mass within a given area, more so than circles or squares. Nature makes use of the shape repeatedly and the human species consistently finds this beauty in this form.

A result of discovering the omnipresence of the hexagon in conjunction with my investigation of ecology and ecosystems, I built a series twenty-five nesting boxes, each in the shape of a hexagon. The shape, found throughout nature, is evocative of the interconnectedness of an ecological system and is an obvious connection to my work with the honeybees. Located in numerous locations throughout the Burren, the birds’ breeding, feeding, and seed dispersal activities bolster the biodiversity of the entire region. Importantly, at the end of each nesting season the nests must be cleared out of the nesting boxes in order to prevent an infestation of lice and mites. The birds would not return to nest the following season if their dwelling was infested. When the nest is removed, it is formed in the shape of a hexagon as dictated by the sides of the constructed nesting box.

I first placed nesting boxes in the Burren in March 2010. Because I was unsure of whether or not the birds would take to the boxes, I only made five. When I collected the nesting boxes in September, all five had nests within them. For the second year, 2011, of this project, I built and placed an additional twenty boxes around the landscape of the Burren. However, I thought I could extend the idea of collaboratively creating sculptures with these animals, if I provided materials for their use in the construction of the nests. The materials I laid around the boxes included cow hair, synthetic hair, artificially dyed feathers, synthetic kitchen sponges, rope and copper, gold and silver wire. I also dyed
multiple batches of sheep’s wool with yellow, red, orange and brown henna. Additionally, I dyed the wool with a turmeric paste, beet juice and carrot juice. Ideally, I had hoped to open the nesting boxes the in autumn 2011 to find brightly colored hexagonal nests assembled from an eclectic mix of synthetic and natural materials.

Interestingly, the birds did not take to offered materials. Based on observation of the final hexagonally shaped nests, a generous estimate would hold that their nests were constructed with .05 percent of the provided materials, a brightly colored feather here, a
bit of dyed wool there, along with a sparse use of the cow and synthetic hair. However, out of thirty possible opportunities to collaborate with Blue Tits and Great Tits, twenty hexagonally shaped nests were created. In each instance, the final collaborative sculpture, a hexagonally shaped nest is a product of my labor combined with the bird’s labor. The collaborative engagement is a reciprocal relationship because I provide the birds with a sturdy, dry and windproof shelter and they construct nests within the boxes. The construction of artificial habitats for these priority species, as an ecological and artistic intervention, has benefited the biodiversity and thus the ecosystem of Burren. Through the enquiry of ecology and the engagements within the land, I have expanded and developed my relationship with my surrounding environment. Notably my enquiry has resulted in the creation of collaboratively produced sculptures that contribute knowledge and understanding to the fields of landscape representation and Environmental Art.
140. A bottom view of a hexagonally shaped nest with two infertile eggs buried at the bottom of the nest.

141. A detailed view of a hexagonally shaped nest.

142. A detailed view of a hexagonally shaped nest.
The Final PhD Exhibition at the Burren College of Art, Ballyvaughan County Clare

The final sculptural installation of *The Collaborations with Blue Tits and Great Tits*, the hexagonally shaped nests, relates the twenty nests to the locations of the nesting boxes within the Burren. Specifically, each nest was individually identified by a small piece of numbered paper attached to the end of a length of string. The nests were then hung over their corresponding numbered locations on a map of the Burren which was painted onto the gallery floor. Importantly, nesting boxes that were not inhabited, that did not have a nest built inside of them, were marked by the presence of a small piece of numbered paper attached to the end of a length of a single ‘empty’ string that extended to the ceiling. The map was a simplified yet aestheticized version of Tim Robinson’s map of the Burren. The area the painted floor map measured seven and half metres by four and half metres. The floor was painted pale yellow with eco-friendly paint, and the roads,
topographical details of the map, names of towns and villages of the Burren, and corresponding numbers were drawn with a sienna colored marker. Viewers were invited to walk on the map, to explore a large two-dimensional interpretation of a map of the Burren landscape, and to identify the location of the thirty nesting boxes. In this way the sculptural installation is made accessible to the lay public visiting the exhibition, thereby extending the ecology that the work presents and represents.
145. Visitors to the exhibition interacting with the map and hexagonally shaped nests

146. Visitor to the exhibition interacting with hexagonally shaped nests
The final sculptures, *The Collaborations with the Native Irish Black Honeybee*, were installed in the side room of the gallery space at the Burren College of Art. Each sculpture was mounted on a wooden box that measured one metre by a half meter, which was then mounted onto the wall. Each mounted box contained a small speaker that played a sound recording of my process of beekeeping combined with the hum of the colony. The hexagonal cells amplified the recording. The overall effect of three sound recordings emanating from the honeycomb sculptures in conjunction with the warm atmospheric lighting, faint smell of honey and beeswax referenced the interior of the hive.

147. Viewer listening to sound recording emanating from small speakers mounted behind the honeycomb. The hexagonal cells amplified the recording of my process of beekeeping combined with the hum of the colony.
The form of the exhibition was intended to engage the imagination of visitors in the hope of inspiring extensions of this project through the subsequent private lives of the visitors. For this reason, the exhibition included take away nesting boxes for visitors to deploy at home. The nesting boxes were upcycled from discarded cardboard boxes left over from another student’s installation. Drilling an entry hole suitable for Blue Tits and Greats Tits in one rectangular box and cutting the other box diagonally in order to make a roof, allowed for the creation of a make shift nesting box. I then painted and varnished the boxes with eco-friendly paint so that they would withstand one nesting season if placed in a sheltered location. An accompanying pamphlet details the birds’ importance to ecosystems, the importance of their conservation, and instructions for where and how to hang the nesting box. To date, almost one hundred nesting boxes have been removed from the exhibition. On the pedestal next to the nesting box installation, I have requested that if someone takes a nesting box, they take a picture of their box wherever they have installed them. To ensure that I receive the pictures, I have also asked people to leave their email addresses so that I may stay in touch. Thus the take away nesting boxes further reflect and extend the ecology of my artistic practice.
149. Visitors to the exhibition viewing and subsequently removing the take away nesting boxes

150. The pamphlet that accompanied the take away nesting boxes detailed the importance of bird conservation and also gave instructions for installing the boxes in people’s gardens
The Contribution to the Fields of landscape representation and Environmental Art

As stated previously throughout this thesis, the representation of landscape as the central theme in any work of art is ultimately the depiction of a relationship between humanity and the natural environment. Thus, my doctoral research is a contribution not only to the field of Environmental Art, the most closely related field of enquiry to my artistic practice, it is also a contribution to landscape representation as it provides new ways of understanding humanity’s relationship to the natural environment.

The final two sculptural projects in this enquiry represent the primary outcomes of the research. They contribute to the field by demonstrating how artistic practice can be intrinsically ecological in innovative ways by means of creating collaborative reciprocal relationships with the natural environment. The sculptural collaborations with the Irish Black Honeybee demonstrate an innovative ecological strategy for sculptural production based on a reciprocal relationship that is supportive of biodiversity and that goes beyond the exploitative character of previous examples of artists working with bees. The sculptures created in collaboration with the honeybees stand in their own right as sculptures and they reflect an informed and engaged relationship with the natural environment, drawing on the scholarly research of this enquiry.

The sculptural collaborations with Blue Tits and Great Tits also resulted in collaborative sculptures, specifically hexagonally shaped nests that were the product of both my and the birds’ labor and a reciprocal relationship. These too stand on their own terms as sculptures, but extend beyond the collaborations with honeybees being without precedent in Environmental Art, either in their three-dimensional forms and presentation as an installation, or in their ecological means of production.

This enquiry also led to the secondary outcome of a discussion of an ecologically centered sculptural process in which Heidegger’s tenets of Dasein and Sorge are explored through eco-phenomenology and brought to bear in my sculptural investigation. In Part III, eco-phenomenology was discussed with regard to the field of sculpture. This research
has shown earlier discussions of creative process related to eco-phenomenology within the disciplines of design and architecture, but not in fine art. Therefore my discussion may also be considered to be a contribution to the field.
Summary of Part III
The Critical Review of the Process of Research

In the third section of this thesis, the Critical Review of the Process of Research, the following chapters described the methods and methodology of the past three years of this research project. I explored the progression and development of my artistic practice during this time through nine artworks. The works include *Extended Life*, *Moving Moss Stones*, *A Presentation of the Landscape*, *The Microscopic Photograph Series*, *The Culture of Paper*, *A Nest of Hazel*, *An Experience of Hazel*, *Collaborations with Blue Tits and Great Tits* and *Collaborations with the Irish Black Honeybee*. At the beginning of each chapter, I presented the key concepts that arose through the studio enquiry of each year. This served to clarify the terms of reference that were discussed as I then presented, in chronological sequence, the sculptures that emerged from the process of research. Throughout the journey of this research project, I described the ways in which my sculptures visually demonstrated the evolution of my relationship to the land of the Burren in County Clare Ireland.

In Chapter Five, I discussed my process of research, as it related to the sculptural investigation of ecology, from the autumn of 2008 to the autumn of 2009. To begin this discussion, I introduced ecology as a key concept that arose through my studio enquiry argued, that in simplified terms, ecology is the study of relationships in all contexts. In the introduction of ecology, I began with a discussion of the scientific definitions of this particular branch of science. I then presented a brief overview of Guattari’s extension of the definition of ecology as it set a precedent for expanding and employing the ecological notion outside the investigation of the traditional notion ecology. Specifically, I applied ecology as a theoretical framework to analyze the function of an individual artwork. Addressing the ecology of an artwork, I examined the interdependence and interrelation of materials, the creation process, the intended concept and the resultant artwork. I then articulated how the synthesis of these components, with specific regards to organic materials, the processes of creating sculpture with organic media and the representation of humanity’s relationship to the natural environment, led my initial investigation of ecology.
I presented the argument that sculptures created with organic media more effectively communicate concepts related to the natural environment than the pictorial representations of paintings and photographs. Specifically, I stated that organic media simultaneously represent concepts related to the landscape and the natural environment as notably, they are derived from what they represent. Because they are the elements of the landscape present within an artistic context, organic media are precisely correlated to the natural environment and are exceptional in communicating humanity’s various relationships to the natural environment. Furthermore, this chapter discussed organic media as the foundation for my artistic practice and doctoral project. Through the study and use of organic matter within my sculptures I explored how as an artist I relate to the landscape. Specifically, Extended Life emerged through a traditional sculptural process of carving and shaping. However, Moving Moss Stones transformed my relationship to the materials I used as well as my relationship to the surrounding environment. This project marked the beginning of an evolution in my artistic practice that I further described in the sixth chapter.

In Chapter Six: The Ecology of Artistic Practice, I discussed my process of research from the winter of 2009 to the winter of 2010. During this time I employed a generalized definition of ecology as a theoretical framework to analyze and develop the relationship between my artistic practice and the land of the Burren. As the philosophical framework for my doctoral project, I discussed eco-phenomenology¹, a relatively new philosophical enquiry, as an extension of phenomenology and contemporary ecological thought. In relation to my studio enquiry, this chapter discussed the specific tenets of eco-phenomenology that were relevant to my sculptural investigation of ecology. This chapter also discussed the landscape of the Burren so as to situate my doctoral research within its particular location. The discussions of eco-phenomenology and the Burren served to clarify the key concepts that were discussed as I then presented, in chronological sequence, the sculptures that emerged from my process of research during this time. Addressing the ecology of my artistic practice, I discussed the five artworks created

during this time, namely: *A Presentation of the Landscape, The Microscopic Photograph Series, The Culture of Paper, A Nest of Hazel* and *An Experience of Hazel*.

Finally, in Chapter Seven: *A Sculptural Investigation of Ecology*, I discussed my process of research for the sculptures, *The Collaborations with Blue Tits and Great Tits* and *The Collaborations with the Irish Black Honeybee*, which were created between January 2010 to October 2011. Importantly, this doctoral project has taken a broad interpretation of ecology, informed by Guattari and extended as a creative process in sculpture. Thus, in the discussion of the two final projects of this enquiry it was necessary to first develop the theme and concepts of ecology, ecosystems and biodiversity in relation to my artistic practice. Notably, these key concepts were explored and expanded through the two final series of sculptures of this project. In order to experience, and not simply study ecology, it was necessary for me to engage and interact with the ecosystems and the biodiversity of life within the Burren. Specifically, my engagements led to ecologically based artistic interventions, namely the construction of artificial habitats for honeybees, Blue Tits and Great Tits in which I collaborated with these animals to create sculpture. Through the enquiry of ecology and the engagements within the land, I expanded and developed my relationship with my surrounding environment. This chapter concluded with a discussion of my contribution through the creation of the sculptures *The Collaborations with Blue Tits and Great Tits* and *The Collaborations with the Irish Black Honeybee*. My doctoral project, *Being in the Land: A Sculptural Investigation of Ecology*, resulted in the creation collaboratively produced sculptures that contribute to the field by demonstrating how artistic practice can be intrinsically ecological in innovative ways by means of creating reciprocal relationships with the natural environment.

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Part IV

Summary of Contribution to Knowledge and Understanding
The Summary of Contribution to Knowledge and Understanding

This PhD in Studio Art addresses the research question: *How may sculpture be generated as a result of a reciprocal relationship with the natural environment?* by means of studio and environmentally based artistic enquiry, supported by scholarly research.

The representation of landscape as the central theme in any work of art is ultimately a depiction of a relationship between humanity and the natural environment. In this respect, my ecological sculptures are a contribution not only to the field of Environmental Art, but also to landscape representation as they and their innovative means of production provide new ways of understanding humanity’s relationship to the natural environment.

The final two sculptural projects in this enquiry—documented in Part I and discussed in Part III—represent the primary outcomes of the research. They contribute to the field by demonstrating how artistic practice can be intrinsically ecological in innovative ways by means of creating collaborative reciprocal relationships with the natural environment.

The sculptural collaborations with the Irish Black Honeybee demonstrate an innovative ecological strategy for sculptural production based on a reciprocal relationship that is supportive of biodiversity and that goes beyond the exploitative character of previous examples of artists working with bees. The sculptures created in collaboration with the honeybees stand in their own right as sculptures and they reflect an informed and engaged relationship with the natural environment, drawing on the scholarly research of this enquiry.

The sculptural collaborations with Blue Tits and Great Tits also resulted in collaborative sculptures, specifically hexagonally shaped nests that were the product of both my and the birds’ labor and a reciprocal relationship. These too stand on their own terms as sculptures, but extend beyond the collaborations with honeybees being without precedent.
in Environmental Art, either in their three-dimensional forms and presentation as an installation, or in their ecological means of production.

This enquiry also led to the secondary outcome of a discussion of an ecologically centered sculptural process in which Heidegger’s tenets of Dasein and Sorge are explored through eco-phenomenology and brought to bear in my sculptural investigation. In Part III, eco-phenomenology was discussed with regard to the field of sculpture. This research has shown earlier discussions of creative process related to eco-phenomenology within the disciplines of design and architecture, but not in fine art. Therefore my discussion may be considered to be a contribution to the field.

In summary, this enquiry has resulted in collaboratively produced sculptures that can be considered to be significant contributions to the fields of Environmental Art and landscape representation. Both the sculptural forms and the ecological creative processes that are their means of production are innovative. The dissertation that supports this body of sculptural work brings together eco-phenomenology and landscape representation in a new configuration that extends and adds to the theorisation of ecologically oriented art in ways likely to be of interest to future artist-researchers in Environmental Art and others interested in the field.
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Bibliography


