THE ENVIRONMENTAL AESTHETIC
APPRECIATION OF CULTURAL LANDSCAPES

by

Andrew David Gorski

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ABSTRACT

In recent decades the canon of environmental aesthetics has expanded beyond its primary concern of understanding what is beautiful in the fine arts to the appreciation of natural and cultural landscapes. Corresponding with society’s growing interest in conservation, environmental aesthetics has emerged as relevant to many conservation discussions.

The preservation and interpretation of cultural landscapes is complicated by resources that are in a constant state of change. Traditional cultural landscape preservation practices have had mixed results. A focus on interpretation rather than preservation is generally considered a strategy for improving cultural landscape practices.

Applying theories developed in the field of environmental aesthetics to cultural landscapes may lead to principles helpful to their preservation and interpretation. In this study, an environmental aesthetic framework is developed and applied to the Canoa Ranch, a historic property south of Tucson, Arizona, to evaluate the potential of using environmental aesthetics in appreciation of cultural landscapes.
I. INTRODUCTION

As I continue my walk, I drop down into an area that appears to have been well vegetated in the past. The skeletal remains of cottonwood and mesquite trees, placed on the enclosing banks of this earthwork, frame my view to the south. I assume that this was once the Canoa Canal. I recall historical photos of this lush oasis. The 1925 black and white photograph of the abundant canal, engulfed by towering cottonwoods. A solitary fisherman on the far bank escaping the certain heat. The riparian lushness of Canoa in former times.

—Personal Reflection,
The Canoa Ranch, June 2006

Aesthetic philosophy shows great promise toward the development of appreciative frameworks that can foster a deeper understanding of landscape. Aesthetics, developed as a branch of Western philosophy during the 18th century, is drawn from the Greek *aisthesis* (perception) which refers to the study of sensory, perceptual concerns rather than logic, reason, and intellect (Bell 2005). From its inception, aesthetics has focused on the appreciation of art works but in recent decades it has expanded to embrace both natural and human-created landscapes. Seeking to understand the process of engagement, enjoyment, and contemplation of environments, the study of environmental aesthetics appears to be a proper vehicle for exploring many issues in the landscape.

In cultural landscape preservation and interpretation, there exists tremendous untapped potential to illuminate and educate on the ephemeral qualities of landscape as well as on the interdependency of natural and cultural systems. Lost in the pervasive conversation revolving around the cultural construct of nature, cultural landscapes have failed to capture the imagination of many environmentalists who prefer to concentrate on
the preservation of places with more pristine nature. James Corner has summarized this attitude as follows:

In mistakenly conceiving of the environment and its many effects and maladies as being outside and not within the cultural world, environmentalists tend only to repair and perhaps forestall damage while cultural ways of being and acting in the world (which lie at the very root of environmental problems in the first place) remain relatively unchanged. (Corner 1999, 3)

Increasingly, however, there is greater recognition that environmental problems cannot be isolated from everyday places and that ordinary landscapes hold valuable lessons. A framework for engagement with ordinary underappreciated landscapes would be useful to those calling for more integrated imaginative approaches to cultural landscape interpretation. In particular, environmental aestheticians’ interest in landscapes, natural and cultural, as well as scenic and unscenic, is an appropriate fit for cultural landscapes.

Furthermore, existing landscape preservation strategies, based largely on those used for historic buildings, are incompatible with the unique values and characteristics of landscapes. While the stated goal of many preservation projects is to restore or preserve the landscapes as well as the buildings, in reality many landscapes cannot be held to the same rigid criteria. Landscapes grow, change and evolve in unique ways. A study of aesthetics can be used to understand how the ephemeral qualities of landscapes can be more fully embraced.

This study posits that there is a role for environmental aesthetics in cultural landscape research, management, and stewardship. It presupposes that the emerging
discipline of environmental aesthetics can be used to generate an appreciative framework that can be used in landscape interpretation and stewardship. Specific approaches, of use to designers and interpreters, are introduced to bridge the gap between philosophy and applied landscape preservation and design.

This study clarifies the role of environmental aesthetics in how a person discovers and makes meaning of landscapes. Through a study of environmental aesthetics, a framework for exploring the relationship between landscape experience, understanding, and engagement in cultural landscapes may be possible.

*Project Overview*

This study proposes a complementary approach to cultural landscape appreciation that captures the special qualities of cultural landscapes while encouraging greater insight into the environment and its ever-changing landscape. This study draws on a rich constellation of disciplines exploring landscape interpretation and meaning, but focuses on the field of environmental aesthetics as a foundation for developing an integrated framework. Based on principles and techniques gathered from a literature review of environmental aesthetics, I propose a framework that allows for a richer appreciation of cultural landscapes.

To test the framework, I perform a descriptive analysis of the Canoa Ranch, a significant cultural landscape that is currently being developed and interpreted for public visitation. With this analysis, I reveal some of the interpretive possibilities made possible in cultural landscapes when an environmental aesthetic framework is applied. I also
propose a tool for documenting and analyzing the aesthetic qualities of a specific
landscape feature that can be used to sustain the aesthetic character of a place against
inappropriate change.

In my analysis, I discuss the implications of using an environmental aesthetic
framework on the planning, stewardship, and interpretation of cultural and natural
resources. I summarize research questions that could be developed to more fully explore
the possibility of using environmental aesthetics in the interpretation and conservation of
cultural landscapes.
II. SURVEY OF LANDSCAPE THEORY & RESEARCH

Contemporary landscape theory pulls from the literature in a number of fields including landscape perception and assessment, geography, history, landscape architecture, and historic preservation. Several connective tissues bring these diverse focus areas into contact. The beginning of this chapter provides an overview of how landscape is conceptualized from both the physical and psychological perspectives. How an individual understands and engages with the landscape is important to understanding behavior and attitudes toward the environment. Environmental history has called attention to the continuity of natural and cultural systems, an important idea for addressing environmental problems.

In-depth discussion of two fields, cultural landscape preservation and landscape assessment, illustrates how the vestiges of earlier ways of viewing the landscape remain entrenched in practices within these important disciplines. Critiques of current practices in both fields establish the need for new approaches that better capture the true nature of landscapes and how they are appreciated. The discussion of both topics is a departure point into environmental aesthetics and the proposed framework for cultural landscape appreciation that follows.

Landscape Perception

The landscape perspective is seen as being increasingly relevant to understanding and redirecting many of today’s social and environmental problems. As interest in landscapes has grown—many new voices, including those of geographers, artists,
architects and landscape architects, historians, and social and natural scientists, have joined with the greater public in a dialogue about locally significant landscapes. According to historian Dolores Hayden, the fundamental work of this diverse group entails illuminating [cultural] landscapes in a way that is meaningful to current and future generations (Alanen and Melnick 2000, viii). The increased interest in landscape within various disciplines serves as a foundation for this research.

In the broadest, most familiar sense, landscape is the physical environment that is home to the human and non-human life of the planet. The physical landscape is derived from macroclimatic and geomorphologic conditions. The complex interaction of precipitation, solar radiation, atmospheric conditions and geology, over billions of years, formed the unique forest, prairie, desert, and mountains landscapes around the world. Understanding natural features and non-human species is the realm of the natural sciences and the ecologists and biologists that work in the physical landscape.

The physical landscape is also the setting for the expressions and activities of human societies. Different cultural groups have shaped and reshaped their surroundings into landscapes that are familiar and that embody the social and cultural values of the group. In the words of Paul Groth, “Landscape denotes the interaction of people and place: a social group and its spaces, particularly the space to which the group belongs and from which its members derive some part of their shared identity and meaning” (Groth and Bressi 1997, 1). This holistic view of landscape contributes to seeing landscapes as more than just scenery but as complex systems embedded with meaning that evolves through time.
A person’s response and behavior toward the landscape is based on attitudes and beliefs created through individual experience and cultural conditioning. Understanding how an individual’s environmental belief system\(^1\) is constructed and manipulated by his or her environment is important to changing attitudes and behavior. Early experiences with the environment help define a person’s understanding and appreciation for the landscape throughout his or her life (Stilgoe 2005; Archibald 1999; Corbett 2006).

According to Stilgoe, the first experiences in the landscape create a “prism” that controls and directs landscape experiences throughout a life. Further training and study of the landscape is no match for those primary experiences that continue to influence and color an individual’s experiences throughout his or her life.

Attention has been called to the low level of environmental literacy held by the general public, a consequence of education and lifestyle that are increasingly isolated from the natural environment. By several accounts (Groth and Bressi 1997; Spirn 1998) most people are not equipped with the tools to read and make sense of their environment. In *The Language of Landscape*, Anne Spirn calls attention to this concern, noting most people are “oblivious to dialogue and story line, they misread or miss meaning entirely, blind to connections among intimately related phenomena, oblivious to poetry, they fail to act or act wrongly” with consequences that are “comical, dumb, dire, tragic” (1998, 22). Landscape illiteracy has created a built environment where human systems are largely out of sync with nature; contributing to ecological degradation. Disconnection from the landscape has prevented landscape responses that respond deeply to place,

\(^1\) The term environmental belief system is used by Julia Corbett in her book *Communicating Nature*. Corbett studies the affect of media and mass communication on environmental attitude and behavior.
considered necessary for long-term sustainability. The bioregional approach advocated by landscape architect Rob Thayer in *LifePlace* (2003) shows promise towards reintroducing the general public to the natural and cultural ancestry of their homes. Local knowledge is given privilege in some environmental aesthetic theories that consider scientific understanding a requirement to accurate aesthetic responses.

The use of environmental history in university level environmental studies programs is growing and seen as an important tool in teaching students to see connections to the natural world (Hall 2003). Environmental history broadens appreciation and concern for the environment by deconstructing the historical record between humans and the environment. Integrating human history with the natural world reveals the interconnectedness of natural and human histories. Environmental history challenges the way history is told, incorporating the voices of the environment as well as groups marginalized by natural resource decisions and policy.

In Ted Steinberg’s treatise *Down to Earth: Nature’s Role in American History* (2002) many central moments in American history are redefined when viewed through environmental history. For example, the southern experience and chances of winning the Civil War are clearly diminished by the natural conditions present in the south during this time. Environmental scholarship will continue to influence how history is presented and aid in the development of mindsets that recognize the interdependence of human and non-human nature.

One of the most prominent and insightful voices in the debate between nature and culture is William Cronon. An environmental historian at the University of Wisconsin—
Madison, Cronon’s publications are widely influential, reaching a growing number of landscape practitioners, including landscape architects and resource managers.

In 1994, Cronon and a group of thirty landscape theorists convened a conference entitled “Reinventing Nature” at the University of California—Irvine. The conference explored the post-modern construct of a world where the concept of nature as separate from the human world is no more. In his groundbreaking essay “The Trouble with Wilderness” (1995), Cronon builds a case for nature, and particularly wilderness, as a human construct that has evolved in response to human desires and needs. According to Cronon, as long as humans believe that wilderness is out there, in its natural and pristine state, they will continue to degrade and damage the places nearest to home. Appreciation and care for the local environment begins when ordinary, everyday places are recognized as natural and equally a part of nature. When everyday places are cared for as much as a distant wilderness area, culture will have developed tools for living responsibly in every environment, not just wilderness.

In focusing his attention on the Apostle Islands National Lakeshore in Lake Superior, an archipelago off the coast of Wisconsin, Cronon hopes to justify the decision by the National Park Service (NPS) to manage the islands as a “historical wilderness,” a new designation that reveals the role that human culture has historically played in shaping the landscape. While many visitors may perceive the island as wilderness based on a scarcity of manmade features, the existing landscape is a product of previous human

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2 As defined by the National Park Service, wilderness is "an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain" (Cronon 1996). The creation of the Wilderness Act in 1964 reflects America’s deep obsession with seeking retreat from manmade landscapes to places free from human influence.
impact on the land. In the past, the NPS has attempted to erase or cover up human traces in the Apostle’s landscape, preferring to present the islands as wilderness, while minimizing their human history. According to Cronon, failure to interpret the human stories of the land is problematic and presents the visitor with “a cultural myth that obscures much of what they most need to understand about a wilderness that has long been a place of human dwelling” (Cronon 2003). Focusing solely on the scenic aspects of the landscape is problematic because it fails to recognize the cultural influence on all environments.

Object and Scenic Models

Emerging environmental aesthetic frameworks recognize the limitations of models that consider landscapes as either objects or scenery. Modes of appreciation that reinforce the idea of landscape as either object or scenery go against many of the fundamental evolutionary and ephemeral qualities of landscapes. When viewed as objects or scenery, landscapes become static, two dimensional objects, and not living systems of human and natural processes. Furthermore, many concepts of the landscape deemed increasingly relevant and important, including connections between natural and human systems, are obscured by antiquated modes of appreciation.

A brief summary of the aestheticians’ critique of the object and scenic models is followed by a more thorough discussion of cultural landscape practices and landscape assessment techniques. Practices within cultural landscape preservation and landscape assessment have been scrutinized for their deference to approaches that do not capture the
diversity of landscapes or responses to the landscape. Revealing the limitations of the existing methods within both fields reveals opportunities to integrate aesthetic theory with current landscape practices.

According to aesthetician Alan Carlson, the object model, typically applied to self-contained pieces like non-representational sculpture, involves appreciation of an object separate from its context. Parallels between art and nature that would allow the object model to be applied to nature are possible, but overall the object model does not allow for a broad enough appreciation of nature. For proper appreciation, a landscape element cannot be removed, either physically or conceptually, from the environment in which it was created and shaped.

Derived from the Picturesque, the scenic model represents landscape through composition of its formal attributes, mainly color, form, and line, etc. The scenic model, in the process of transforming a landscape into a view much like a painting, makes the experience static and two-dimensional. The scenic model makes the appreciator a distanced observer where the environment becomes little more than an impressive view. According to Carlson, “the model requires the appreciation of the natural environment not as what it is and with the qualities it has, but rather as something that is not and with qualities it does not have (Carlson and Berleant 2004, 68). Both the object and scenic models are problematic frameworks because they do not adequately incorporate the innate and temporal characteristics of landscape.
Cultural Landscapes

The term cultural landscape is used to describe places where a distinct human relationship with the land has been fashioned. The cultural landscape framework is increasingly utilized in a variety of planning and research contexts. Its growth over the past few decades is the result of increased attention at the national and international level. In the United States, cultural landscape preservation is an outgrowth of preservation frameworks originally developed for individual buildings. Mitchell argues that a new paradigm for landscape preservation that can accommodate the “broad range of cultural values and dynamism integral to many landscape resources” is beginning to emerge (1996, 3). The new paradigm balances the desire to preserve important historical features with the recognition that change is integral to the authenticity of the resource (Table 1). The new paradigm also broadens the definition of what is significant from individual structures to landscapes, while giving local communities the authority to decide what is important.

Until the middle of the 20th century, the historic preservation field in the United States was rooted in an object-oriented approach that was obsessed with historic buildings, venerated primarily for their special architectural merit or association with an important person. Early efforts at historic preservation left the United States with a large number of house museums and institutions that stood apart both physically and socially.

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3 Cultural landscapes are recognized by international programs like the United Nations World Heritage Program and the International Council of Monuments and Sites (ICOMOS) which has recently published guidelines for interpreting cultural heritage site. See Silberman 2006. The George Wright Forum vol. 23 no. 1, 2006. In the United States, the founding of the Vernacular Architecture Forum (VAF) in 1980 has helped foster a greater interdisciplinary appreciation of cultural landscapes.
Table 1
Evolving Preservation Paradigms

<table>
<thead>
<tr>
<th>Definitions of Heritage</th>
<th>Existing Paradigm</th>
<th>Emerging Paradigm</th>
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<tr>
<td></td>
<td>National Register lists, districts, sites, buildings, structures, and objects.</td>
<td>Places shaped by the interaction of history, people, and nature—can be small or large geographic areas distinguished by particular relationships of resources and people over time.</td>
</tr>
<tr>
<td></td>
<td>Living Culture such as folklife and other intangible resources recognized as valuable.</td>
<td>Comprehensive, integrated, humanistic definition of heritage.</td>
</tr>
<tr>
<td>Concept of the Past</td>
<td>Past is seen as connected with the present with relevance for the future.</td>
<td>Past is perceived as a dimension of the present thus continuity has great value.</td>
</tr>
<tr>
<td></td>
<td>Continuity with the past is given value.</td>
<td>Past is perceived as an integral part of the context within which we live and plan the future.</td>
</tr>
<tr>
<td>Areas of Significance</td>
<td>History, architecture, archeology, engineering, or culture.</td>
<td>Multi-contextual across themes of history and culture.</td>
</tr>
<tr>
<td></td>
<td>Emphasis on unique heritage.</td>
<td>Emphasis on representative heritage, natural heritage, and intangible heritage.</td>
</tr>
<tr>
<td>Level of Significance</td>
<td>National register recognizes national, state, and local.</td>
<td>International significance—awareness of global community and its cultural and natural diversity.</td>
</tr>
<tr>
<td>Integrity Aspects</td>
<td>Aspects are location, design, setting, materials, workmanship, feeling, and association.</td>
<td>Dynamism of natural and cultural heritage incorporated into evaluation of authenticity.</td>
</tr>
<tr>
<td></td>
<td>Cultural association has credibility.</td>
<td>Respect for retention of historic fabric balanced with dynamism.</td>
</tr>
<tr>
<td>Management Implications</td>
<td>Property-level and preservation planning focus on individual cultural resources primarily structures.</td>
<td>Provides an integrated perspective for both property-level and preservation planning for large areas.</td>
</tr>
<tr>
<td></td>
<td>Continuum approach given consideration</td>
<td>Definition, evaluation, and management conducted by people responsible for stewardship of heritage.</td>
</tr>
<tr>
<td></td>
<td>Restoration compelling, rehabilitation is common</td>
<td>Multi-jurisdictional, locally-based, and community-controlled management and preservation planning based on site-specific characteristics.</td>
</tr>
<tr>
<td></td>
<td>Accuracy of site-specific information emphasized</td>
<td>Cultural continuity respected.</td>
</tr>
<tr>
<td></td>
<td>Change is problematic.</td>
<td>Change associated with natural and cultural dimensions integral to heritage embraced.</td>
</tr>
</tbody>
</table>

Source: Adapted from Mitchell (1996, Table 7).
from the actual community in which they exist. During this time, landscape was nothing more than artifice or backdrop, appreciated primarily for its scenic value. The misleading conceptualization of historical places became problematic when the framework was applied to larger landscapes and places where a multiplicity of values and histories was important.

Beginning in the early 1980s, the National Park Service began to systematically research and manage cultural landscapes at National Parks. To date, over one thousand cultural landscapes have been identified at NPS units (Chalana 2005). In response to this new mandate, the NPS developed two primary tools, the Cultural Landscape Inventory (CLI) and Cultural Landscape Report (CLR), to help document and evaluate the cultural landscapes under its stewardship.

Cultural landscape inventories and reports have been found to contribute to the preservation of cultural landscapes by giving resource managers an inclusive history and inventory of the landscape and its physical features that can be used for management and preservation decisions (Lowe 1996). At Virginius Island, a cultural landscape within Harpers Ferry National Historical Park, the CLR has been valuable to understanding what repairs needed to be made following a recent flood and in providing an overall framework for stewardship of the cultural landscape (Joseph 2006).

Recent assessments, however, reveal that cultural landscape preservation is still struggling to define a framework that can appropriately accommodate the unique

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4 In 1980, Tom Kane and Robert Z. Melnick were asked by NPS Chief Historical Architect to prepare the first of that institution’s many reports on cultural landscape management. The report is entitled *Preserving Cultural and Historic Landscapes: Developing Standards* (Mitchell, 40).
attributes of landscapes. Mitchell provides a good starting point for discussion by concluding that the current framework “doesn’t identify all landscape resources and their values, doesn’t effectively integrate cultural and natural resource conservation, nor does it provide adequate overall management direction” (Mitchell 1996, 43). These challenges, and others, will be summarized briefly to give some perspective on the effectiveness of current approaches.

Landscapes, as compared with other cultural resources, are difficult to manage for change. The preservation of buildings may include impeding change by freezing the building at a chosen moment in time. Landscapes, on the other hand, are dynamic systems that require new techniques and frameworks for stewardship. Natural elements grow, mature, erode, move, die, and revive in ways that cannot be held to a certain time or appearance. Since landscapes are ecosystems undergoing constant change, traditional preservation treatments, as applied to buildings, are mostly incompatible (Alanen and Melnick 2000; Mitchell 1996; Watt 2001).

As noted above, preserving landscapes is challenging because they are systems in constant flux. Built features, such as fence lines, fields and irrigation devices become obscured as “nature” attempts to regenerate and reoccupy an area over time. Sites undergoing such a metamorphosis offer unique educational opportunities, especially for understanding natural processes and landscape change. Recognizing the difficulty in holding dynamic systems in place, both Chalana (2005) and Howett (2000) recommend focusing on the interpretation of cultural landscapes, rather than only on their treatment. Interpretation that stimulates the public’s interest in cultural landscapes while providing
enhanced educational opportunities could give preservation a new agenda and a more relevant place in society.

Interpretation and preservation of cultural landscapes can be hampered by a number of methodological challenges. Existing preservation standards and criteria, in addition to being better suited for more static buildings, tend to lack the specificity required to categorize and evaluate the nuances found in many cultural landscapes. Because the features of many cultural landscapes are unique to that landscape and are not replicated widely, identifying and understanding landscapes that contain special resources and values is problematic. According to some researchers (Alanen and Melnick 2000; Chalana 2005), preservation guidelines and standards, including *The Secretary of the Interior’s Standards for the Treatment of Historic Properties* and the CLI and CLR formats, codify landscapes in ways that have “the potential to negate the very idiosyncratic landscape qualities that set one place apart from another” (Alanen and Melnick 2000, 17).

The emphasis on cultural rather than natural resources is one of several institutional shortcomings identified by Alice Watt (2001) in her critique of how the NPS has managed the Point Reyes National Seashore as a cultural landscape. According to Watt, the NPS has steered the park’s landscape toward its own values, and away from the local values that were the original impetus for preservation. Watt characterizes this new landscape as a “National Park-scape,” because its values are more aligned with those of the NPS than of the local cultural values and environmental conditions at the park (2001, 5). Watt’s analysis substantiates the real possibility that preservation projects will take on
the values of the agency that controls the decision making power. At Point Reyes, historic buildings were demolished to give the park a more naturalized appearance.

Similarly, many important cultural landscapes are overlooked because landscape managers who work closely with either natural or cultural resources do not always see cultural landscapes in the same light. Natural resource managers may disregard the cultural traces on a site in their desire to rehabilitate a site to a more natural state, while cultural resource specialists may elevate a site’s cultural resources above important natural resource considerations. Thus, many middle landscapes, where natural and cultural forces are both present, have not been comprehensively preserved and presented for the public in a manner that appropriately interprets both their natural and cultural significance (Alanen and Melnick 2000). An integrated cultural landscape approach is needed that recognizes the interconnectedness of nature and culture. Understanding how culture has influenced the natural environment, but also how the natural environment has shaped culture, is an important interpretive asset of the cultural landscape.

The maturation of preservation scholarship and theory holds great promise for the repositioning of preservation into a context where it can be made more relevant to the general public. Preservation’s obsession with historic fabric and the integrity of the physical object has caused the concept of historical significance to become stagnant. In preservation circles, significance is defined and understood narrowly by professionals and those privileged few who are equipped with the architectural vocabulary necessary for proper evaluation and appreciation.
Randall Mason suggests that significance has been divorced from its role as an expression of cultural meaning. When significance is more broadly considered, it “must be expected to change, involve multivalence and contention, and be contingent on time, place, and other factors” (Mason 2003, 65). The significance of historic resources is not only associated with their physical condition, but in how that physical fabric contributes to the continuing and evolving narrative of a place. A democratization of preservation would include a context where meaning is created and discovered by ordinary citizens within a context that can accommodate change (Ahern et al. 2005; Mitchell 1996).

Landscape Assessment

Since the 1960s, when increased awareness and concern for environmental issues, including new federal regulations, created the need for new methods of evaluating the scenic beauty of landscapes, landscape professionals have dispensed a wide variety of environmental assessment models. Many of these techniques, based on the object and scenic models previously discussed, have been criticized for focusing too much on the picturesque attributes of the landscape, calling into question the reliability of the approaches in making objective decisions. At the same time, the literature reveals that landscape assessment techniques have begun to move away from object and scenic models towards more aesthetic frameworks. Although environmental aesthetics has emerged in recent decades to offer a better understanding and appreciation of the landscape, there has been limited integration of philosophical tenets with landscape assessment and management practices.
Landscape assessments are typically used to evaluate the effects of logging, road building, and other human induced developments on the scenic and recreational values of public lands. Without satisfactory precedents on which to develop theory, early researchers took a shotgun approach, resulting in uneven results that lacked reliability and widespread applicability (Dearden and Sadler 1989). The absence of theory, however, did not temper enthusiasm or decision making during the formative period of the 1960s and 70s. Landscape assessments became an integral piece of the decision making process as “practitioners were not going to fiddle with theory while the landscape burned” (Dearden and Sadler 1989, 6).

By the 1970s, research spread into environmental psychology, geography, and landscape architecture and became more focused on understanding specific questions, including what human factors contributed to a person’s appreciation of landscape and what qualities of landscape people preferred (Gault 1997). Popular approaches focused on either the characteristics of the landscape that were thought to enhance scenic beauty or the human factors that contributed to appreciation of beauty in the environment (Moss and Nickling 1989). The interaction between human factors and landscape characteristics was recognized, but a comprehensive approach remained elusive.

Increasingly, this lack of theory was recognized as a hindrance to the expansion of the field (Appleton 1996; Arthur, Daniel, and Boster 1977; Zube, Snell, and Taylor 1982; Dearden and Sadler 1989). The relevance and reliability of scenic assessments was debated with the quantification of results seen as highly desirable. The normalization and empirical ranking of scenic values was viewed as necessary in light of how other resource
management decision-making factors, including economics and resource extraction, were quantifiable (Ribe 1982; Dearden and Sadler 1989). Brush and Shafer’s (1975) quantification of forest scenery for use in forest management was a leading example developed during this time. This approach quantified the area of differentiated landscape zones, such as water and forest canopy, shown on photographs and was influential in the development of Visual Resource Management (VRM) systems still used by public land agencies in the United States.

One of the seminal scholarly texts from the 1970s is Jay Appleton’s *The Experience of Landscape*. Concerned with the lack of theoretical underpinning and reliance on visual content in landscape assessments, Appleton proposes the “prospect-refuge theory” based on an understanding of human behavioral and biological principles. Appleton suggests that the human ability to see and to hide are important evolutionary traits that help give preference to landscapes that contain or symbolize both distant views and protective shelters. Appleton’s proposal helped to establish both alternatives to popular techniques reliant solely on photographic analysis of formalist landscape properties and theory that could be applied to landscape design.

The maturing of the disciplines is best exemplified by Zube, Sell, and Taylor’s (1982) attempt to organize the field of landscape evaluation into four main paradigms—expert, psychophysical, cognitive, and experiential. The expert paradigm is based on evaluations by observers with professional training in design and ecological sciences. Philosophical environmental aesthetics would consider this to be a formalist approach to landscape evaluation, based almost entirely on visual characteristics. The psychophysical
focuses on landscape assessment through survey and preference testing while the
cognitive approaches focus on human meaning of landscapes as influenced by socio-
cultural factors. The experiential paradigm recognizes the reciprocal relationship that
exists between humans and landscapes, where each is shaped by the other. Over the
fifteen year period of this analysis, the experiential approach was by far the least utilized,
although perhaps the most exciting to the researchers. In their summary, Zube, Sell, and
Taylor are most optimistic about a more integrated, experiential approach where
“understanding interactions will contribute to answering questions of why landscapes are
perceived as they are, what they mean to individuals and groups and how they contribute
to one’s sense of well being or quality of life” (1982, 24). With its suggestion of a more
holistic approach, Zube, Sell, and Taylor’s recommendation is oriented towards the
concerns of environmental aestheticians and indicates the need to augment policy-driven
methods with theory.

A multiplicity of research agendas and methods, compounded by practical
concerns that favor redundant approaches, has prevented much movement toward a
comprehensive theory. In Gault’s (1997) update of Zube, Sell, and Taylor’s research,
it was determined that there was little interest and action toward developing a “universal”
thetical framework during the years of 1980-1996. This lack of theory development is
consistent with similar developments throughout the social sciences and geography and
has led to the expert model as the de facto approach to landscape evaluation (Dakin
2003).
Douglas Porteous’ framework is highlighted by Gault for its potential to collapse the various methods into a workable paradigm. According to Porteous (1996) the existing paradigms fail to consider the sociopolitical dimension of aesthetics and are too concerned with academic literature and debate rather than applicability to real-life contexts. Porteous recognizes four interconnected approaches and figureheads in environmental aesthetics—the humanists, experimentalists, activists, and planners. Collaboratively, Porteous believes that these four approaches, along with a rededication to aesthetic education, can foster an integrated, holistic and experiential appreciation of landscape.

In recent years, experimentalist approaches that seek responses from participants immersed in landscapes have become more numerous. In her recent work in the Cariboo region of British Columbia, Dakin (2003) utilizes a methodology that includes non-visual stimuli, participant immersion within ordinary landscapes and a reflective approach that recognizes multiple perspectives and the subjectivity of individual responses (191). Operating outside of the conceptual boundaries imposed by the existing visual resource management system utilized by the Ministry of Forests, Dakin moves the field more towards the experiential engagement of landscapes that philosophers have suggested. In her own analysis, Dakin (2003) concludes:

An experiential approach can support and direct the reorientation of visual-resource management towards a broader, more inclusive and participatory assessment that is reflective of the meanings that land and landscapes hold for people and compatible with the more integrative, participatory paradigm emerging and reshaping environment and resource management. (196)
Concurrently searching for a theoretical framework, researchers and practitioners of both applied aesthetics and philosophical aesthetics have, at times, come together over the past thirty years. Critiques of landscape assessment techniques by philosophical aestheticians, including those by Carlson (1977) and Eaton (1989), offer substantive critiques of overarching concepts within applied aesthetics. Troubled by a lack of theory in the work of landscape professionals, Eaton believes that philosophy can enlighten both the results and expectations of the “cadre of young professionals” who are enlisted with determining aesthetic values in the landscape (1989, 76). In particular, Eaton rejects the quantification, a primary concern during the 1970s and 80s, that landscape professionals use to exert that an assessment is objective. According to Eaton, such attempts “confuse objectivity with quantifiability,” with trained professionals arbitrarily choosing factors that have no real basis in the aesthetic (1989, 81). Qualitative assessments of landscapes may be objective so long as they are rooted in values. Values are preferences and beliefs determined by cultural agreement over many generations and, according to Eaton, determine what we are drawn to in the landscape.

In a similar fashion, Carlson criticizes E.L. Shafer’s landscape preference model, believing that it reduces public preference of the natural environment to the “lowest common denominator” (1977, 148). Carlson finds fault with an approach that uses the formalist training of landscape architects to decide on landscape preferences that are nothing more than predictions veiled as objective results. Rather than quantifying

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5 The landscape preference model measures the amount of characteristic landscape features found on photographs. As Director of Research for the United States Forest Service, Shafer was interested in developing an assessment tool that could be quantified.
variables that are meaningless and purposeless, Carlson introduces a role for the environmental critic, a person equipped with the “knowledge and sensibility” required to correctly appreciate the environment (1977, 151). With the environmental critic, Carlson begins to establish a component of his more comprehensive *Natural Environmental Model*, of which there is significant analysis and discussion in the body of this research. As these examples exhibit, philosophers value the opportunity to contribute to improving the effectiveness of aesthetics in real world situations.
III. ENVIRONMENTAL AESTHETICS

This section will review the field of environmental aesthetics through a chronological outline of its major movements and historical developments. A brief overview of aesthetics through the middle of the 20th century will serve to place the more recent discussion of environmental aesthetics, the focus of this research, into an overall context.

Although the foundation of modern philosophical aesthetics lies in the 18th century, the role of art in society is first considered by Plato in The Republic. Plato believed that art is a copy of reality, a belief that was carried forward to the middle of the 20th century when non-representational art began to appear. By Plato’s view, life and ordinary existence are a copy of the perfect, rational ideal. Art is therefore an illusion that has the power to mislead or corrupt. While Plato believed that art has the potential to be uplifting and a positive influence, he could not overcome his fear that art was a destructive force that should be censored (Clowney 2007). Plato was particularly troubled by poetry and the use of mimesis, or image-making. Plato banished most poetry from his ideal city because of his belief that poetry taps the psyche and can therefore excite pleasures that are harmful to a civilized city.

With the exception of Aristotle, whose Poetics refutes Plato’s stance on mimetic poetry, there is little of consequence in philosophy until the 18th century. During this time, Immanuel Kant (1724-1804), a German philosopher at the University of Königsberg, developed his critical philosophy of aesthetics. Kant’s Critique of Judgment, published in 1790, is widely considered the foundation on which much of modern
philosophical aesthetic movement was constructed (Crawford 2001). The question that Kant explored in *Critique of Judgment* is what qualifies something as beautiful. Kant refers to such observations as to whether something is beautiful or not beautiful as “Judgments of Taste” (Crawford 2001, 52). According to Kant, beauty is receiving pleasure or satisfaction from an object’s appearance, but it is more than mere agreement. Aesthetic judgments, he contended, rest on disinterested perceptual experiences, where we find ourselves contemplatively responding to the formal appearances of things with delight or aversion (Bell 2005).

The rise of the Picturesque during the 18th century ushered in landscape appreciation as a serious pursuit. The picturesque landscape, lauded for its painterly qualities, became symbolic of the highest beauty. As Carlson (2004) notes, this standard in landscape appreciation carried through to the 20th century. With the awakening of the environmental movement during the middle decades of the 20th century, new focus was placed on landscape evaluation with the development of techniques, once again, modeled mostly on the vestiges of the picturesque movement.

By the middle of the 20th century, philosophical aesthetics was being applied almost exclusively to artistic pursuits. Nature was considered too indeterminate for aesthetic frameworks that provided precise direction for the proper enjoyment of art, music, and literature. Possibly influenced by society’s increased interest in the environment, philosophers interested in the subject of aesthetics attempted to reestablish appreciation of nature as a serious subject for philosophical debate and consideration. Hepburn’s essay “Contemporary Aesthetics and the Neglect of Natural Beauty” (1966)
places the appreciation of natural beauty squarely in the arena of philosophy. In the article, he challenges aestheticians’ fascination with art and claims that nature offers its own unique attributes that make it appropriate for aesthetic appreciation. Hepburn’s critique radically energized the debate within philosophical aesthetics and set aesthetic theory towards the path of landscapes and values that it embraces today.

The Aesthetic Experience

The aesthetic experience is “marked by attending and reflecting upon a thing’s intrinsic properties and by the delight that accompanies this attention and reflection” (Eaton 1989, 28). This primary determinate of an aesthetic experience implies that landscapes have perceptual qualities that illicit responses and sustain attention. The perceptual qualities of the object direct the observer towards greater inquiry into the object and its creation. A deeply aesthetic experience may even move the individual towards a deeper understanding of the object and its relationship to the individual.

In several theories, Kant’s concept of “disinterestedness” exists as a way of framing the aesthetic experience. Disinterestedness mandates that aesthetic contemplation and enjoyment should come from the perceptual qualities of the object and not from the concerns or desires that the individual places on the object (Brady 2003, 130). Aesthetic appreciation of the sea, for example, should come from the colors, smells, and sounds intrinsic to the ocean and not from a desire to swim or catch fish for nourishment. Disinterestedness can help insure that imaginative readings of the landscape are the result of attending to the perceptual qualities of the object and not from individual flights of
fancy. Disinterestedness may also help expand aesthetic appreciation to landscapes not
generally considered worthy of appreciation by supporting appreciation that is on the
landscapes own terms. Yuriko Saito positions nature as a story teller where every story is
relevant and has positive meaning (1998). Exploring aesthetic properties triggers deeper
meaning by causing the observer to go beyond the visual qualities of the object to a more
scientific understanding of the phenomenon. According to Saito, “No matter how
seemingly insignificant, uninteresting, or repulsive at first sight, natural history and
ecological sciences reveal the marvelous works of every part of nature” (1998, 105). An
animal carcass may be aesthetically appreciated when negative associations of death and
decay are supplanted by scientific knowledge of how the entire ecosystem functions.

Another example of how disinterestedness may help separate emotional
responses from realistic aesthetic responses appears in the appreciation of agricultural
landscapes. In “The Garden and the Red Barn” (1998), Sally Schauman explores the
expectations people have for agricultural landscapes. Schauman is concerned that most
people have never set foot on a farm and do not have the knowledge necessary for
making and evaluating environmental practices in agricultural landscapes. Agricultural
landscapes are expected to have an orderly garden and red barn based on deep-seated
cultural, biological, and psychological factors. When confronted with a modern
agricultural landscape, a person looks for “signs” and fills in the rest of the scene to
match his or her expectations. Focusing on the expected landscape rather than perceptual
qualities of the actual landscape forces many people to miss the environmental pollution
and problems generated by modern agricultural practices.
The aesthetic approach is also used to frame the landscape, but in the opposite way, where expected behaviors and aesthetics are used to camouflage or disguise new landscape practices that are more ecological. Landscape architect Joan Nassauer has developed an approach where an orderly frame is used to cue the observer to see that unfamiliar landscapes are worthy of aesthetic appreciation and care. Framing an unordered landscape with a more manicured landscape is a reassuring cultural device that can help foster care and stewardship.

Aesthetic theory also considers framing from a different perspective. Framing, in reference to art, refers to the physical boundaries of a work that affect how the work is viewed or appreciated. In the case of a painting, the frame physically brings together the canvas in a way that composes the elements into an aesthetically pleasing whole. In environmental aesthetics, framing is condemned for being arbitrary and removing nature from its unbounded whole, limiting the types of aesthetic experiences that can be had. Framing may also reduce nature to a picture or object, echoing the concerns Carlson has about the scenery model of appreciation. At the same time, framing is granted some leverage because in order to have an aesthetic experience, some framing is necessary (Moore 2006). Framing takes many forms, from isolating an object from its surroundings, to giving it a name and placing it in a category. Framing of the landscape occurs because it is how objects in the landscape are perceived and because cultural knowledge and individual experience influence the aesthetic response.

A phenomenon related to framing, the dialectical, involves the expression of landscape change as revealed through artifacts. A dialectical relationship involves two
things in conflict where the two opposing forces bring into existence a third object. That third object becomes the focus of aesthetic appreciation (Crawford 1983). Crawford offers the following:

The emergent third object may become a new object of aesthetic appreciation, one which results from the synthesis of opposing forces, artefactual [sic] and natural. In some cases the synthesis need not negate or dissolve the natural or the artificial; each may retain its identity, and the aesthetic significance of each is dependent upon the interaction between the two—hence the term dialectical. (Crawford qtd. in Brady 2006b, 3)

In a dialectical relationship, non-aesthetic characteristics take on aesthetic qualities when acted on by an opposing process. A manufactured artifact may become more aesthetically pleasing when its perfection is softened by natural processes and weathering.

Artifacts in dialectical transpose continue to exhibit their original form, but simultaneously forecast a future state. Ruins offer an aesthetically rich experience because they simultaneously draw on the past and project into the future. It is possible to understand a ruin’s original condition as well as its future state. Transitioning from the artifactual to the natural, the liminal object continues to exhibit the two opposing forces that bring into being the aesthetic. Over time, however, when one force becomes more pronounced, the relationship could cease to be dialectical.

The dialectical is also expressed in the production of utilitarian features that are a synthesis of natural elements and human ingenuity. Stone walls and hedgerows are examples of the human-nature synthesis that can have positive aesthetic value. Aesthetic character is achieved not only through the harmonious relationship between objects, how the stones fit seamlessly together in an aesthetically pleasing stone wall, for example, but also in the positive feeling generated by working with nature sympathetically (Brady
2006b). The ability of natural forces to continue to influence and reshape the environment in spite of human cultivation may be lead to an aesthetic response. The pleasure felt in gardening is an everyday example of an aesthetic experience derived from the dialectic.

**Existing Aesthetic Frameworks**

Several philosophical aestheticians have developed more complete frameworks for the aesthetic appreciation of the environment. In particular, the theories of Alan Carlson and Emily Brady are worthy of extended discussion. Their theories make for a central comparison because of their contrasting approaches and because they are relatively well developed, taking into account a wide variety of landscape types and appreciative conditions. Arnold Berleant’s significant body of work is also worth mentioning. A brief overview of Carlson’s theory and Brady’s theory follows this short introduction.

Cognitive approaches include scientific information as the primary determinant of aesthetic appreciation. These theories imply that objective information from the hard sciences helps to ground the responses of subjects. Allen Carlson heads the group of philosophers who espouse the cognitive approach.

Emily Brady’s “integrated aesthetic” is an approach that includes both cognitive and non-cognitive attributes. A primary component of Brady’s framework, not widely acknowledged in other theories, is the expanded role of imagination in the aesthetic experience.
Another significant framework that should be included in an overview of contemporary aesthetic theory is Arnold Berleant’s “aesthetic of engagement.” The concept of engagement is an integrated approach where the entire body is activated and incorporated into experiences through sensory and perceptual activity. Engagement can be seen as enveloping the entire human (and non-human) existence in an integrated environment of physical, social, and environmental factors and values. Engagement may be seen as the foundation of phenomenology where the participant contemplates the place and his or her relationship to it. Many performance and environmental artists are using engagement to create highly relevant pieces that bring greater visibility to environmental problems. Berleant claims that his approach offers the fullest appreciation of any aesthetic experience, but it has been criticized by those who believe that it leads to experiences that are totally subjective.

Regardless of this criticism, engagement is an appropriate device for the aesthetic appreciation of cultural landscapes because they are environments with rich sensual and perceptual qualities, places where natural conditions may be highlighted by cultural impositions on the land. Engagement has the potential to expose the participant to an evolving narrative between past, present, and future. A landscape’s narrative, represented by the accumulation and evolution of the physical features, stories, and traditions at a particular site, provides opportunities for positive aesthetic experience.
Allen Carlson’s theory into appropriate aesthetic appreciation of nature is commonly referred to as the “natural environmental model.” Carlson builds his model on several aesthetic principles from the art world that are consistently applied to all forms of art. The first principle, that art can be distinguished from non-art, establishes when art is being viewed and when it is not. Generally, art occurs in museums, galleries, and concert halls, while things outside of these places, by this standard, would not be considered art. Art is bounded by a frame that establishes the relationship between the observer and the object being observed. Natural landscapes are not bounded in the same way, but are often viewed as a painting that limits appreciation to formal qualities.

In art appreciation, we know which aspects of the piece are relevant to appreciation and which elements are not. The formal aspects of painting—shape, color, and line—are the most important considerations in correct appreciation. Whether or not the picture hangs in the Louvre is a secondary concern. To give a different example, the ringing cell phone at the symphony is disregarded because it is outside the experience of the correct appreciation of music. Both principles are well established and considered the minimum by which aesthetic appreciation of art is determined.

Carlson agrees that formalism plays an important role in viewing a landscape. Formalism is the primary way that people are “taught” to see a landscape and is constantly being reinforced by scenic viewpoints and graphic displays that glamorize the landscape. Formalism is considered by Carlson to be an essential, albeit rather shallow, element in his aesthetic theory.
Building upon the work of philosopher Paul Ziff, Carlson develops a corollary principle of standard artist appreciation that he adapts as the centerpiece of his natural environmental model. According to Ziff, “a different aspection is performed in connection with works belonging to different schools of art, which is why the classification of style is of the essence” (Ziff qtd. in Carlson 1979, 267). Therefore, how one looks at a Cubist painting is very different from how one observes a Renaissance painting because each was painted using different principles and theories. Proper appreciation of each style requires that the observer know what properties to look for. The same can be said for appropriate appreciation of different architectural styles and genres of music.

According to Carlson, natural landscapes must be placed in the proper category to allow for correct aesthetic appreciation. Correct appreciation is based on knowledge and facts derived from science. Carlson is skeptical of the postmodern view of landscape where multiple readings of a landscape are possible and where none of the readings is given preference for holding the correct meaning. Concerned with the potential negative repercussions of misreading the environment, Carlson’s theory seeks an objective appreciation of the landscape (Brady 2003).

Carlson believes that formalism is at the service of content, for without content, it is difficult to make meaning and to organize the lines and shapes perceived. At a minimum, Carlson believes that common knowledge, the basic information a person acquires through socialization that allows them to organize the world, is required. Common knowledge includes being able to decipher the ordinary elements of any
environment. For example, when looking at a mountain, the observer distinguishes between peak, valley, canyon, and trees, thereby giving order and hierarchy to certain shapes and lines. Scientific knowledge obtained from geology, ecology and the other hard sciences “deepens and enhances” aesthetic appreciation (Carlson 2005; Carlson 2004).

In contrast to art appreciation where the history of a piece, except for when it was produced, is deemed irrelevant to appreciation, tracing the evolution of a landscape through time is important to proper appreciation. Carlson stresses that a thorough background in the seminal landscape readings by authors such as W.G. Hoskins and J.B. Jackson are equally as important as readings in natural history and ecology. While Carlson’s natural environmental model has been criticized by Brady for its application only to nature, by admitting history into the curriculum, Carlson’s ideas may have application to other landscape types, including cultural and unscenic landscapes.

According to Carlson, “we frequently consider the contemporary remaking of landscapes to be abuse rather than simply use and look upon it with aesthetic dismay” (2005, 99). Strip mining and clear cutting are prominent examples where the observer will generally have a negative reaction to the contemporary history of an environment. Carlson does not give a good example of how appreciation of landscapes can be improved by knowing about its contemporary use. It is possible that Carlson is simply pointing out that abused landscapes, like more pristine environments, are worthy of aesthetic appreciation.

However, when viewing art pieces that have been recently damaged or repaired, Carlson suggests that knowing this information is critical to proper appreciation.
Knowing that Michelangelo’s Pieta was damaged and restored in the last thirty years is critical to understanding why the sculpture is currently protected by a bullet-proof enclosure.

By definition, myth, symbol, and art are all ways that cultures, groups, and individuals give meaning to an environment. At first glance, Carlson suggests that myth, symbol, and art are not aesthetically relevant, but better suited for a postmodern view of landscape appreciation. His reasoning is two-fold. First, he claims that none of these three things is actively involved in the production of landscape or changes to its appearance. Since the perceptual qualities of the object are not affected, these attributes are insignificant. Secondly, Carlson feels that myth, symbol, and art contribute to individual readings of the landscape where no view is accorded privilege. Carlson (2005) uses the example of Devils Tower, Wyoming, to illustrate how a landscape can take on different meaning depending upon the group or culture. Devils Tower has symbolic significance to the Cheyenne and Kiowa, Native American tribes in the area, who refer to the feature as Bear Lodge in their creation myth. Association between prominent landscape features and cultural traditions is common to Native Americans as well as other cultural groups. Furthermore, Devils Tower was featured in the science fiction film classic Close Encounters of the Third Kind, giving it widespread association in popular culture.

Carlson concludes, however, that each individual culture or group brings its own associations to Devils Tower, creating its own privileged image of the landscape based on their own culturally constrained information. Rather than a postmodern landscape appreciation, Carlson prefers to think of this as landscape pluralism where cultural
knowledge gives priority to one appreciation. While myth, symbol, and art are not prominent in Carlson’s theory, they are acknowledged in specific contexts.

*Integrated Aesthetic*

Emily Brady’s “integrated aesthetic” is a model that utilizes both cognitive and non-cognitive methods. Brady insists that her model is easier to use because it makes use of the qualities of the aesthetic experience, mainly perception and imagination, that are more accessible and common in aesthetic appreciation. Through a disinterested, perceptual approach, the participant can reach revelatory truths concerning nature. While other philosophers have defined the parameters of imagination, Brady has developed the most complete theory on its role in environmental aesthetics.

Several modes of imagination work to generate aesthetic possibilities through which a revelatory experience can be had. According to Brady, “Imagination enables us to adopt several different perspectives, as well as entirely new ones. It gives us ways to reach beyond stereotyped modes of appreciating environments: to come afresh to familiar or everyday environments and to locate previously undiscovered qualities” (Brady 2003, 147). Brady arranges imagination into five categories: metaphorical, exploratory, projective, ampliative, and revelatory. Each of these modes offers unique possibilities for engaging with the perceptual qualities of the aesthetic object. In an aesthetic experience, all, none, or some combination of these imaginative modes come into play and can enrich the experience in different ways.
Metaphorical imagination refers to the process of relating one object to another, generally illuminating the perceptual object in a novel way. When a striking rock formation reminds us of a cartoon character we are using metaphorical imagination. Metaphorical imagination is one of the most common modes used in environmental perception.

Exploratory imagination enhances certain perceptual qualities of the object, leading to increased meaning and more aesthetic pleasure. Imagination helps trigger new responses to the object, often triggering an aesthetic response that was not initially present.

Projective imagination involves imaging or placing an image onto what is there. A common example is when a shape or pattern is projected onto a series of stars. Brady also considers projection to be when a person projects him or herself into an environment. Often such projection will lead to actual participation, making projective imagination valuable idea for designers and interpreters.

Ampliative imagination goes beyond the perceptual qualities of the object, towards invention and novelty. With ampliative imagination, new ways of understanding the object are tested through both visual and nonvisual activities. Ampliative imagination may take into account the functional and temporal factors that contribute to the object’s aesthetic qualities. Active and penetrating are primary descriptions of ampliative imagination.
Revelatory imagination is the effect of ampliative imagination that leads to new discovery and meaning. This new understanding is gained through the aesthetic experience alone, not through the cognitive processes.

There is concern that the use of imagination can tap into trivial and whimsical thoughts. Brady addresses these concerns by clarifying how appropriate responses are generated through imagination that is guided by the perceptual qualities and clues of the object. In other words, the perceptual qualities of the object determine which imaginative responses are accurate and valid. In some cases, a more rigorous system may be needed to eliminate unwarranted imaginings. Disinterestedness or detachment creates a situation where individual feelings and interests are discouraged, providing the context for open and free-form imaginings that are relevant to the object at hand. Overall, Brady encourages people to practice “imagining well” so that they can expand their capacity to appreciate environments.

In “Imagination and the Aesthetic Appreciation of Nature” (1998), Brady takes issue with Carlson’s natural environmental model. According to Brady, while Carlson’s model does allow for aesthetic responses, the responses are limited and they do not help distinguish aesthetic response from other environmental values. According to Brady, Carlson’s natural environmental model dresses up environmental assessments in aesthetic garb. Rather than defining the aesthetic as a unique variable in the landscape, Carlson restricts appreciation to the same constraints provided by other environmental assessment tools. According to Brady, Carlson’s model produces results that are indistinguishable from other landscape assessment approaches. For aesthetic values to be more influential
in decision making processes, they must be recognized as different from environmental values.
IV. AN ENVIRONMENTAL AESTHETIC FRAMEWORK FOR CULTURAL LANDSCAPES

Preservation and Interpretation

The discussion of aesthetic theory and the various models and philosophies presented could be used to inform the four main preservation treatment strategies: preservation, rehabilitation, restoration, and reconstruction. Resource management of cultural landscapes, based on the guidelines presented in the Secretary of the Interior’s Standards (SIS), often focus on the remaining physical fabric of historic resources. The decision to preserve, rehabilitate, restore, or reconstruct is based largely on the amount of “original” historic material remaining and the desire to depict a property at a certain stage of its development. Thus, it is possible to restore and even reconstruct buildings and landscapes based on thorough historic research and the SIS. However, as discussed in the literature review, the practicality of restoring and constructing landscape features is complicated by their dynamic qualities, suggesting the need to augment the SIS treatments with interpretive techniques.

In cultural landscapes, especially those undergoing obsolescence, aesthetically based interpretive planning may be an effective way of being more true to the historical continuum. Even if landscapes could be held to a certain appearance or historic period, a richer interpretation of the site’s history and resources could be provided by an approach that encourages the visitor and the site to create their own individual narrative. As proposed, an environmental aesthetic framework could provide resource managers with alternative approaches to site interpretation.
Many factors contribute to the interpretive planning of a site. A site’s educational mission, the expectations of visitors, budgetary constraints, and stewardship responsibilities are a few of the considerations that affect interpretation. The style of interpretation will have a certain effect on the visitor experience. If an interpreter is interested in leaving the visitor with one understanding, rather than another, certain techniques are better suited to achieving those goals.

At historic sites, interpretation can take many forms. Interpretive signage is a common approach used to provide information to visitors. Signage is cost effective, relatively unobtrusive, and can easily be modified or changed. A great deal of information can be passed on to visitors with signage. Increasingly, the latest technologies allow visitors to personalize their experience with the assistance of cell phones or other handheld devices. Audio and video capabilities have enhanced the visitor experience, bringing voices and objects from the past to life. Technology has improved access to fragile resources by bringing the visitor in contact with digital versions of the original.

According to Don Aldridge (1989), interpretation is also an art. Scientific facts should justify a certain interpretation but effective interpretation uses creative and imaginative techniques to get across its message. Entertainment has been shown to capture a visitor’s attention unlike more static interpretive approaches like signage. Sites that have used living history demonstrations are generally well received and can provide the visitor with a fairly accurate portrayal of historical or cultural traditions.
Sites with significant natural and cultural resources often have a specific message that they want to put across to the visitor. Aldridge’s definition in his 1970 interpretive guidelines for the Countryside Commission for Scotland provides a good starting point into the role of interpretation at such sites. Aldridge describes site interpretation as “the art of explaining the significance of a place to the people who visit it, with the object of pointing a conservation message” (Aldridge 1989, 64). In the United Kingdom, the countryside, a defining feature of the region, is threatened by a changing economy and increasing urbanization. Promotion of Aldridge’s basic interpretive concept at heritage sites and natural preserves has been effective at increasing interest and concern for countryside conservation in the United Kingdom.

Interpretation communicates a conservation message by giving people some context for their lives, allowing them to fully interact and appreciate those important resources that may have lost significance. Ultimately, interpretation is directed at engaging people to act responsibly and to recognize their place in the world. Adrian Phillips’s essay “Interpreting the Countryside and Natural Environment” (1989) expands Aldridge’s intentions for interpretation further by emphasizing the link between personal behavior and environmental health. He says:

My particular appeal to interpreters would be to help people see the connections, between their behaviour [sic] and the problems which beset the planet, between the problems of a particular site and those facing other parts of the world. Our desperate need is for a citizenry which has a global view and is environmentally literate: interpretation can, and must, contribute to that end. (130)

Phillip’s desire to raise awareness of global problems through interpretation further reveals the strong ethical dimension to interpretation. His call for increased
environmental ethics echoes the concerns of others with an interest in landscapes and the greater environment.

*The Aesthetic Framework*

The proposed framework for an aesthetic experience and appreciation of cultural landscapes synthesizes theory from philosophical environmental aesthetics. In developing a framework for the aesthetic experience and appreciation of cultural landscapes, six techniques—*formalism, framing, knowledge, imagination, engagement,* and the *dialectical*—appear most relevant. These six approaches were chosen because they provide a range of techniques that people may use in experiencing the environment and because they are sensitive to the unique qualities of cultural landscapes. Following is a brief summary of each approach under the pretext that appreciators will apply these six techniques in various ways according to their experience and the qualities of the landscape.

The six techniques correspond to both individualistic and more culturally determined modes of appreciation. While the aesthetic experience is driven by the perceptual capacity of the individual, cultural conditioning plays a significant role in what is appreciated and the meaning derived from that experience. In the framework, formalism, framing, and knowledge are more culturally focused while imagination, engagement, and the dialectical are more individual constructs. Between these broad categories it may be possible to further polarize approaches. In the literature, for example, the merits of knowledge and imagination are contested. In reality, however, the use of
knowledge and imagination may not be incompatible. Brady makes a strong case for imaginative approaches that appear to be influenced by knowledge of the object.

Similarly, the appreciator fluctuates between more culturally bounded approaches, formalism and framing, and the more individualistic mode of engagement. Taking in the full perceptual qualities of an experience necessitates choosing to focus on some specific qualities. An overall aesthetic experience is based on both an individual’s sequence through the landscape and the learned ways of seeing that influence the appreciation of specific objects or settings.

The dialectical could be considered from both cultural and individual perspectives. Culturally, the dialectical experience requires an understanding of the forces in conflict. Knowing what something was and what it is becoming is important to the dialectical aesthetic. At the same time, the dialectical aesthetic may be a function of doing and creating. Human occupation that transforms nature into an aesthetic object may be deeply personal.

Formalism

Formalism refers to appreciation by purely perceptual means of organizing shapes, colors, and lines in agreeable patterns. The formalist approach is commonly attributed to scenic appreciation and viewing the landscape as a painting. The formalist approach is valid because it is how people have been taught and are structured to appreciate landscapes. Formalism is generally included in most frameworks, although
aesthetic frameworks have emerged that are more inclusive of other perceptual and emotional qualities in nature.

Framing

Framing of landscapes suggests an approach to appreciation modeled on approaches used in art. In artistic pursuits, the “frame” is the lens through which the work is appropriately appreciated. This lens can literally be a frame, such as with a painting, or it can be a mode of experiencing that provides the appropriate constraints for having an aesthetic experience. While landscapes are often conceptually unbounded, in reality we both perceive and encounter landscapes through boundaries.

Framing may also be the cultural construct that provides privileged insight into a landscape. The framing of symbolic and metaphorical landscapes is done through cultural traditions, stories, and myths that create a specific landscape frame for certain social groups.

Framing may be particularly useful in cultural landscapes, places with an ongoing narrative, where a landscape can be appreciated as a story along a cultural/natural continuum that includes past, present, and future. The process of framing may help to highlight those aspects of the landscape that provide aesthetic appreciation. Knowledge and the dialectical are different framing approaches that can be used in aesthetic appreciation of landscapes.
Knowledge

There is disagreement among philosophers concerning the role of knowledge in aesthetic appreciation. The fundamental question being asked is how much “knowledge” of what is being appreciated is required in order to have an aesthetic experience. The argument is summarized as follows:

Alan Carlson believes that the knowledge of scientists and those with specialized training is required for correct aesthetic appreciation of the natural environment. In his view, a pluralism of experiences and reactions to the environment, supposedly caused by a lack of knowledge, jeopardizes the truthfulness behind serious environmental decisions. The aesthetic experience is driven by knowledge of the object of appreciation and requires placing the object in the correct scientific category. Carlson uses the example of a whale: In order to appreciate the gracefulness of the whale, we must know that it is a mammal and not a fish.

It should be noted that the knowledge of what something does and why it does it is included in Carlson’s framework. For example, in coming to grips with the aesthetic appreciation of industrial versus traditional agriculture, Carlson (1985) concludes that modern agriculture can be aesthetically appreciated because the system and its components function efficiently and produce large amounts of food. The system works as designed and can therefore be appreciated aesthetically. Brady criticizes this reasoning because it fails to take into account the negative environmental consequences (pollution from pesticides, soil erosion, and inhumane conditions for workers and animals) on industrial agriculture. In this case, the relationship between humans and the environment
is deeply strained, and while such landscapes may have aesthetic qualities, it is difficult to find them aesthetically pleasing because of the social harm. In fact, moral concerns may make it difficult to appreciate objects or landscapes that have aesthetic properties.

Brady takes a decidedly different position on the role of knowledge in aesthetic appreciation, deeming its role secondary to that of the perceptual qualities of the object. According to Brady, knowledge-based approaches reduce aesthetic experience to a cognitive exercise leaving little room for more individual nuanced experiences that respond to the unique and aesthetically rich properties of nature and other non-artistic situations. Brady is perhaps underestimating the role of knowledge in her framework. In her examples, she indicates more than just cursory knowledge of the objects she discusses. While her use of knowledge is not category specific, it does appear to be a reference point for the imaginative possibilities available to the participant. It appears that common knowledge may be a part of Brady’s framework, even though it is not explicitly mentioned.

Brady assesses that placing nature in correct categories is problematic because nature is indeterminate and not everyone has the experience to correctly position the object in the correct scientific framework. In cultural landscapes, a similar problem emerges when landscapes lose their former use. Cultural landscapes that are abandoned do not meet the category-specific criteria required of Carlson’s knowledge component. To overcome this confusion, other aesthetic approaches, including the dialectic and imagination, can help inform aesthetic appreciation of landscapes in a state of change.
Knowledge would appear to be an important component of the aesthetic experience. Several objectives of the aesthetic experience seem dependent on knowledge of the landscape under consideration. The information that makes something morally objectionable and therefore aesthetically unappealing is important if there is a connection between aesthetics and ethics. In cultural landscapes, does common sense “knowledge” adequately inform the aesthetic experience or is it better to have a strong scientific and cultural understanding of a landscape and its processes? Knowing less does not necessarily mean that the experience will be any less aesthetic. Knowledge may, in fact, unduly restrict the variety of responses that one can have in an experience if the participant is unable to explore beyond the ordinary experience of the object.

Imagination

Imagination, to some extent, infiltrates many different human experiences including the aesthetic. Generally, a role for imagination in aesthetic appreciation has been overlooked and deserves greater attention to see how it can be used effectively.

Imagination has been severely criticized by some philosophers who feel that it leads to unconstrained and fleeting responses. According to Marcia Muelder Eaton (1998), imagination is not grounded and can lead to understanding nature in an incorrect or misleading way. Consequently, decisions and attitudes towards nature could be unsustainable if the aesthetic response is misinformed by imaginative tendencies. Eaton highlights the role that fiction plays in constructing cultural myths about ecological systems, using the example of Bambi to address her concerns. Eaton believes that the
story of Bambi has made it difficult for wildlife managers to make ecologically correct decisions concerning their management. Because society views deer as passive creatures that are incapable of causing environmental harm or upsetting population dynamics, controlling the deer population is often criticized.

Cheryl Foster believes that in most cases imagination enhances the aesthetic experience by freeing the observer of more ordinary responses. According to Foster, imagination draws on the way that most experiences occur in nature. The cognitive approach tends to compartmentalize the experience of nature while the imaginative, or ambient, allows for an experience as “an enveloping other, a place where the experience of one’s self drifts drastically away from the everyday” (Foster 1998, 133). Through such contemplative and meditative effects on the participant, imagination may lead to revelatory thoughts where a new understanding of place emerges.

The Dialectical

The dialectical occurs when natural processes act on a human artifact to produce an aesthetic effect. The interaction of cultural and natural forces produces a third object that can be aesthetically appreciated. For the interaction to be aesthetic, the pieces have to have some congruency. When the human process overpowers nature, the result is often not aesthetic.

The dialectical is valuable for explaining many of the forces at work in the landscape and for contemplation of the various interpretive possibilities present in culturally modified environments. Because utilitarian features often take on a deep
aesthetic pleasure in becoming ruins, how aesthetic value is played out against other historical and cultural values is complex. The dialectical may be an interpretive approach that has real value in landscapes undergoing change.

**Engagement**

Engagement is a process of individual discovery that is relevant for all landscape experiences. For the purpose of this analysis, engagement is defined as experiencing environment through activity and engagement rather than through visual means only. Engagement is being immersed in a landscape, actively exploring and reflecting upon the setting and the individual.

Engagement is necessary for the aesthetic approach to gain broader understanding and application. A good portion of what is learned about the world is through cognitive means, either directly, through empirical research, or indirectly, by reading about it in books or on-line. Engagement prioritizes direct experience with the landscape where individuals can draw their own conclusions and form their own set of environmental values. The myth of the environment as “other” from daily lives can be dispelled by educational and interpretive approaches that promote engagement.
V. APPLICATION AT THE CANOA RANCH

_Historical Overview_

Since prehistorical times, the Santa Cruz River was the major migration route through what is today Southern Arizona. Native people relied on its perennial flow and spring-fed _cienagas_ for irrigation water and the gathering of wild plants and animals. Early Spanish explorers, including Father Eusebio Kino and Juan Bautista de Anza, traveled up and down the Santa Cruz, spreading the doctrine of church and state. During this time, the area was first referred to as _La Canoa_ (the feeding or drinking trough) on the Santa Cruz River, indicating that the location was important as a reliable source of water. When Anza and his expedition set off for San Francisco from the Tubac Presidio in October of 1775, they spent their first night at La Canoa (Hadley 2006).

In 1821, the 17,000 acre San Ignacio de la Canoa Land Grant was established by the Ortiz brothers, although no deed to the land was obtained until the late 1840s. Apache depredations made ranching and occupation of the land difficult until the 1870s when the American military and homesteaders established a presence in the region. By 1884, Maish and Driscoll had stocked the ranch and the adjacent public lands with 10,000 head of cattle. Maish and Driscoll made many improvements to the ranch, including the construction of the Canoa Canal.

In 1912, Levi Howell Manning purchased the ranch. Over the next few decades, the ranch became one of the most progressive and largest ranches in the southwest. A feeding trough for 1,500 cows, thought to be the longest in the nation, was constructed in 1928. Through the 1930s and 40s, residential buildings were added to the ranch’s
headquarters complex, a compact group of buildings that acted as its own village center. By some estimates, the ranch controlled nearly a half million acres through deeded property or grazing leases.

In December of 1951, the Howell Manning Jr. was killed in an automobile accident when his car was hit in a head-on collision. With the ranch in decline, holdings, including water rights, were sold off to corporate interests. Through the 1960s and 70s, the ranch continued to decline, with the buildings and historic landscapes suffering from neglect and lack of use. In 1991, after a series of corporate owners, the property was purchased by a Scottsdale developer who intended to build homes on the site.

In 1999, influenced by a diverse group of local stakeholders, the Pima County Board of Supervisors denied a rezoning request that would have allowed the developer to build thousands of homes on the site. In 2001, Pima County purchased the remaining 4,800 acres of the ranch with the dual purposes of protecting open space and sensitive species and preserving and interpreting the rich historical resources of the ranch.

*Master Plan Overview*

The Canoa Ranch Master Plan process was initiated to help determine the future management of the Historic Canoa Ranch, a parcel of land that spans the Santa Cruz River directly south of Green Valley, Arizona (Figures 1 & 2). For most of 2006, the planning team worked with various stakeholders to build consensus and create a vision for the property. The planning team was comprised of professional consultants, including architects, landscape architects, interpretive planners, economic consultants and
historians. Pima County’s cultural and natural resource managers, a Citizens’ Advisory Committee, local nonprofit organizations and the general public were also involved in the planning process. I was involved in the project while working for the prime consultant on the project, a local architectural and planning firm that focuses on historic preservation. In this capacity, I acted as a liaison between the various stakeholders while helping to synthesize vast amounts of historical and natural resource data accumulated through research and site analysis.
Figure 2. Aerial view of the Canoa Ranch in 2002.
The project team included several experts on ranching and the history of the Canoa Ranch who helped pull together information on the former use of the ranch. The analysis by landscape architects included inventories of protected species and natural resources. A view-shed analysis was completed, indicating the positive and negative views from different locations on the site. The economic consultant compiled cases studies of similar projects and began a market analysis of the Tucson region to determine the potential of the Canoa Ranch as a site for tourists, local residents, and visiting friends and relatives. No inventory of the aesthetic characteristics of the ranch was conducted to determine the aesthetic capacities and qualities of the ranch. Aesthetic theory did not play a very big part in the master plan, with the exception of scenic considerations. As the plan is more fully developed, there will be opportunities to more fully embrace aesthetic theory, especially in the development of the interpretive plan and individual treatment decisions. One key element decided during the master plan that has aesthetic implications is the decision to restore the historic buildings and landscape to their appearance in the early 1950s. By this date most of the major development on the ranch had been completed.

The Canoa Ranch’s Aesthetic Experiences

Guided by the environmental aesthetic tools extracted from emerging frameworks, different experiences at the Canoa Ranch are discussed in this section. This exercise is used to reveal how the proposed environmental aesthetic framework can be applied to a cultural landscape. An inventory of existing aesthetic opportunities could be
used by planners and designers when interpreting the ranch for public visitation. It may be possible to provide visitors a variety of experiences based on a preferred aesthetic approach, the visitor’s learning style, or an interest in specific interpretive themes of the ranch. Some visitors would choose an aesthetic experience where knowledge informed their experience, while others might choose an option based on imagination and an exploration of the ranch’s emotive qualities. A person interested in understanding how the landscape has changed would visit interpretive nodes with dialectical properties. Activities and educational activities would be necessary to orient visitors to all the possible modes of experiencing the ranch. Rather than dictate how a visitor should experience a place, environmental aesthetics allows for multiple paths into a landscape experience.

Formalism

Undeniably, the Canoa Ranch and its landscape have scenic values. Encompassing over 4,800 acres of open space in a rapidly developing area, the Canoa Ranch provides opportunities to experience spectacular natural beauty. Looking east, unobstructed views to the majestic Santa Rita Mountains provide a powerful backdrop to the ranch (Figure 3).
East of the river, much of the land remains healthy and relatively undisturbed. Native desert plants and grassland species co-mingle in a natural landscape that continues to evolve through time. The Santa Rita Prickly Pear (*Opuntia santa-rita*) appears sporadically at higher elevations. Along a former ranch road, the robust color and dynamism of this specimen plant attracts sustained attention (Figure 4). This is just one of many unique snapshots of the landscape that showcase its beauty and highlight the aesthetics of the natural environment.
Many of the remaining features of the cultural landscape are visually striking and appeal to an artistic inclination towards framing. The massive, cylindrical concrete valves used to control and divert irrigation water are visually interesting and provide a strong foreground element to photographs (Figure 5). The protruding horizontal joints between sections lend variety and roughness to the machine-like appearance of the form.
Figure 5. Irrigation gate valves west of the Santa Cruz River. Photo by Scott O’Mack.

A photographer may also be drawn to historic structures that exhibit irregularity, unevenness, and the unexpected. The silhouette of uneven parapet walls and temporary bracing against a pristine blue sky provides a dramatic postcard view of the ranch (Figure 6). The forms found in objects of a ruinous state are more playful, visually appealing and dynamic than buildings held to a given appearance or period of time. While not reason alone to forego restoration, the visual appeal of ruins should not be discounted as a positive aesthetic experience capable of sustained interest and appreciation.
Dead and decaying plant material may also be found attractive. Around the headquarters complex, a lack of maintenance and irrigation, coupled with a lowered water table, has killed many specimen plants and trees that were not adapted to the Sonoran Desert. The rigidness of a dead conifer tree juxtaposed against the delicacy of an umbrella shaped tree is alluring (Figure 7). Under other environmental conditions or situations, it is possible that this situation would be less aesthetically pleasing as the colors, shapes and lines might not appear as interesting.

This small grouping of dead trees appears to be pertinent to Saito’s discussion of unscenic nature. While it is possible to find aesthetic qualities in this view, I suspect that most people would not find this scene aesthetically important or pleasing. While the patterns formed by the dead branches are interesting, the tree is expected to be a moving, living form of branches, leaves, and bark. It is difficult to be aesthetically satisfied by this tree because it does not match expectations of beauty.
Figure 7. Dead group of trees near residential compound. Photo by Andrew Gorski.

The tree does have important aesthetic qualities that can only be accessed by appreciating the tree on its own terms. A more disinterested aesthetic stance allows the observer to set aside his or her own expectations and desires when viewing the scene. Rather than seeing the deadness of the tree’s branches as an aesthetic fault, a disinterested
perspective allows the observer to take note of the overall structure of the tree. It may be possible to conclude that this tree was probably ill-adapted for this extreme climate based on its upright structure, overall height, and a lack of intermediate and smaller branches. The environmental and maintenance consequences and responsibilities required to keep this tree alive through the summer are considered. The perceptual qualities of the tree lead to deeper discovery and ultimately to deeper and more engaging appreciation.

Formalism and framing are more than just convenient and popular ways of viewing the environment. In an aesthetic appreciation of cultural landscapes, both appear to be primary tools for reaching deeper levels of aesthetic experience.

Framing

According to the locals, a prominent rock outcropping on the western slopes of the Santa Rita Mountains, within view of the Canoa Ranch, takes the form of an elephant’s head, including its elongated trunk and floppy ears (Figure 8). An aesthetic response to Elephant Head rock is derived largely from the cultural systems of the surrounding area. Up until hearing about the elephant head in the rock, I suspect that very few people spot the elephant’s head without some coaching. While it is possible to explore other responses to the rock, it is very difficult because of the cultural preference of reading the rock as an elephant’s head.
Knowledge

At the height of the ranch’s prosperity, from the 1940s into the early 1950s, several hundred acres of agricultural fields were in active production. Based on the abundant yields and general prosperity of the ranch during this time, one might conclude that favorable natural conditions alone were the blessing that allowed the ranch to flourish. However, anyone who has tended to their own little patch of desert with the hope of growing a few vegetables understands that good soil and adequate water alone does not make for a successful garden.

Through their experience of working with this land, the Mannings and their employees developed a deep understanding of this place, especially with respect to water. With their collective knowledge, the Mannings systematically developed the ranch with berms, check dams and irrigation approaches designed to maximize agricultural
production. The features that remain on the land, while uninteresting to the untrained eye, contain years of ingrained knowledge and understanding.

An understanding of the purpose and function of many of the small-scale, constructed features on the ranch is important to their proper appreciation. The retention areas used to store water for livestock and irrigation at the far western edge of the current property are a good example. Historically, a number of medium sized washes flowed from the mesas west of the ranch into the Santa Cruz River. While the river flowed ephemerally in a broad channel of mostly xeroriparian vegetation, the major washes included large mesquite bosques and a rich understory of vegetation. Directing the surface flow to areas where it could be stored was critical to the success of the ranch.

In the midst of an extreme drought, it is impressive to come upon standing water in the retention areas in late January of 2006 (Figures 9 and 10). In spite of the drought, with no measurable rainfall since the middle of October 2005, there was ample water in the basins to fully appreciate how successful the Mannings must have been at capturing every drop of rain that fell on their land. Recognizing that the basin is a created feature and not a natural spring is critical to appreciation because it is important to recognize that water does not naturally occur at this location but is the result of closely studying the land. The ephemeral condition of the basin is more aesthetically pleasing and interesting when background knowledge of its purpose and use is included. Visiting the basin following the summer rains to see how much it fills is motivated by previous experiences informed by knowledge and understanding.
Figure 9. Retention basin west of the Santa Cruz River. Photo by Andrew Gorski.

Figure 10. Water in retention basin during drought. Photo by Scott O’Mack.
Knowledge of how water was controlled and directed for ranching is not the only knowledge of water important for appreciating the ranch and its current condition. The Phelps-Dodge Corporation pipes water from six wells at Canoa to its Duval Mine, located seventeen miles to the northwest of the Canoa Ranch (Figure 11). Phelps-Dodge controls the majority of the water rights at the ranch, extracting water at a rate of 22,000 gallons per minute. The wells, protected by a security fence and razor wire, are in an open landscape, not far from the river (Figure 12). Overhead, power lines branch out from the well to the power grid. Underground, water pipes distribute the water to high pressure pumps at the northwest corner of the site. Without knowledge of how this largely

Figure 11. Phelps-Dodge well site. Photo by Andrew Gorski.
invisible system operates, it is not possible to fully understand how local groundwater pumping contributes to the degradation of vegetation and riparian areas.

The pumping of groundwater presents an aesthetic/ethical argument as well. Several philosophers are interested in knowing if it is possible to appreciate something aesthetically if it contributes to a degraded environment. Would a more expressive and architectonically beautiful well site be aesthetically pleasing? Or does concern over how the wells affect the environment make appreciation more difficult? In the case of the wells, any delight located in their physical form does not lead to an aesthetic experience because their function is ethically wrong. It is possible that the presence of the well sites can then be used to raise awareness of the connection between groundwater depletion and mining. Would knowing something about the well sites encourage more sustainable
consumerism or make someone think twice before purchasing the latest electronic gadget which contains copper mined by Phelps-Dodge?

**Imagination**

Imagination is one of the most commonly used yet perhaps the most difficult tools to understand in an aesthetic experience. Imagination that leads to an aesthetically revelatory experience does not come easy. To engage the imaginative process may require special aesthetic training or more disciplined appreciation. Brady’s submission that the imaginative response be derived from the perceptual qualities of the object appears to be a solid starting point for guiding aesthetic responses. Accordingly, a realistic and valid imaginative response should come from the object itself by the participant who is situated in the landscape.

Imagination comes into play when contemplating many of the remnant features of the agricultural landscape, including the former pit silo and irrigation ditches. Among the most expressive features that remain of the ranching landscape, it seems possible to have other aesthetic readings based on their perceptual qualities. The shotcrete walls of the pit silo, used to store silage, are reminiscent of swimming pool walls (Figure 13). Imagining this depression as a giant swimming pool helps in visualizing the volume of material needed to fill the pit. In turn, it is possible to more fully understand how large the cattle operation was at Canoa.
The Dialectical

The most interesting and revealing aesthetic experiences at Canoa Ranch appear in the dialectical resolution of natural and cultural features. At Canoa Ranch, the dialectical is particularly poignant because it is a working landscape that was abandoned. Over the last thirty years, a deep patina has developed over many of the objects in the landscape. While the original design and purpose of many manmade objects is obscured by weathering, erosion, and the colonization of plants, a rich aesthetic is observed. As was previously mentioned, ruins have traditionally been associated with the scenic vistas of the Picturesque movement. Ruins are aesthetically pleasing because of their compositional qualities. The dialectical moves beyond mere formal qualities to address issues of content and context, bringing higher levels of contemplation to the aesthetic experience.
An interesting place to begin studying the dialectical at Canoa Ranch is at the intersection of previously managed and unmanaged landscapes. The historic fence and gate that once separated the Canoa canal and agricultural fields from the historic residential landscape is a clear example of the dialectical (Figure 14). The gate has become overgrown with weeds and the lock and chain are badly rusted. In one sense, the gate represents a static event, the very last time the gate was unlocked, opened, entered, closed, and relocked. On the other hand, the gate continues to rust and take on new qualities, entering into a more dynamic relationship with a natural environment that has been allowed to evolve.

Figure 14. Gate from residences to agricultural landscape. Photo by Andrew Gorski.
During its heyday, the ranch headquarters featured several large expanses of manicured lawn and formal plantings that defined the spaces around the buildings and provided a frame for views of the more natural landscape beyond. The plantings along the edge of the lawn were labor intensive and required supplemental irrigation. Without continuous care, these plantings, quite possibly roses, disappeared from the historic setting. While the roses have vanished, the irrigation system remains an ordered element within a mass of overgrown weeds and plants (Figure 15). While the strong vertical lines of the irrigation pipes are visually appealing, an aesthetic appreciation of this discovery is based as much on the temporal dimension and in seeing the pipes in a way that they are not usually experienced. The contrast between visible infrastructure and decayed plant material is a novel experience and makes the visitor think more about the constructed nature of gardens, including the amount of water necessary for their survival.

A landscape designer could use these traces in a planting design that reveals a broader continuum of the landscape history at the ranch. Leaving the elements of this scene to further evolve would support a rehabilitation approach that selectively restores elements of the historic setting. A more authentic interpretation of the ranch should include its more recent history including its significant period of neglect and decline. Erasing recent history is misleading to the visitor and denies the way landscape processes truly operate.

The dialectical pairing should be encouraged in the application of preservation treatments. The inevitability of evolution and change in both buildings and landscapes could be more fully embraced by setting up relationships that showcase the dialectical.
When left to their own inertia, objects often take on aesthetic qualities through their resolution with the natural conditions of the site. Preserving and even restoring certain elements, while other are left to evolve, should be considered. Leaving the visitor to resolve the tension between artifacts that are maintained to resist change and buildings and landscapes left to evolve offers unique interpretive and educational opportunities.

Figure 15. Sprinkler system at former residential landscape. Photo by Andrew Gorski.
Canoa Canal Character Study

The preceding section was meant to illustrate a few examples of the aesthetic at the Canoa Ranch that could be used in interpretive planning. In this section, a different aesthetic feature, the Canoa Canal, is analyzed to offer a more concrete example of how the framework can be used by designers, landscape architects and resource managers to maintain aesthetic character. Using Brady’s approach to aesthetic character as a model, a general approach to categorizing and evaluating aesthetic character is presented. The framework can be used to evaluate how design and management decisions potentially impact the aesthetic character of a landscape.

The framework addresses another important consideration: how to direct or preserve the aesthetic integrity of a landscape. Brady calls this being true to the “narrative” of the site, where its aesthetic character is conserved in relation to past, present and future (Brady 2003). Understanding the aesthetic character of a landscape can help prevent drastic changes that upset the overall trajectory of the landscape. This information may be useful to decision makers and designers who may choose to restore, preserve or allow for change in a landscape.

History of the Canoa Canal

In 1869, Frederick Maish of Pennsylvania and Thomas Driscoll of New York state arrived in Tucson. By 1875, the business partners began running cattle at Canoa Ranch, and by 1880 the claim was fully transferred to their possession. As early entrepreneurs, Maish and Driscoll developed Silverlake resort in Tucson and sold beef to
the San Carlos Reservation. However, it was their plan to deliver water to Tucson via a canal that has remained a permanent piece of Canoa’s history and a signal of future attempts to control water in the area.

According to public records, the project was “to construct a main canal from a point on the Santa Cruz River…on or near the southern boundry [sic] of the Mexican Land Grant known as the ‘Canoa’ and from there in northerly direction down the Santa Cruz Valley, to the City of Tucson and to the north thereof….” While the developers never succeeded in delivering water to Tucson, the canal did extend “over a mile in length and 30 feet wide with many branches. After a flood washed out the canal, only a mile of the main canal was left. Another report states that the main ditch was reported to be 100 feet wide at the top, 12 feet wide at the bottom, and 15 feet deep” (Hadley 2006).

The canal played an important role in the development of water resources at the ranch. The canal consisted of a series of artesian wells that tapped the underground flow. Photos from the 1910s show a series of pumps diverting water from the canal to nearby agricultural fields. A 1920s photo shows the canal shaded by a thick canopy of trees, an inviting retreat on hot summer days (Figure 16).
Figure 16. The Canoa Canal in the 1920s. Courtesy of Diana Hadley.

Figure 17. The Canoa Canal in 2006. Photo by Andrew Gorski.
Environmental change and the overall decline of the ranch contributed to the canal’s demise and deterioration. By the late 1970s, it appears that the canal no longer contained water and much of its vegetation had died. Today, the canal is an empty container of its former self, with only traces of historic plant material and standing water after the summer monsoons (Figure 17). Constructed elements of the canal, including concrete culverts and steel gate valves are still present (Figure 18).

Figure 18. Gate valve from the Canoa Canal to historic pasture. Photo by Andrew Gorski.
Aesthetic Character of the Canoa Canal

The overall aesthetic character for the canal is based on the accumulation of certain aesthetic qualities. Aesthetic qualities result from the perceptual qualities of the object. The canal no longer possess the same type of aesthetic character that it exhibited when full of water and vegetation, because many of its aesthetic qualities are void. Without water and vegetation, the observer must search for other properties of the canal that reveal aesthetic qualities.

Using the aesthetic approaches proposed in this paper, the aesthetic quality of the canal in its current condition is discussed (Table 2). The following tables describe aesthetic responses to the canal using various approaches. A subjective rating is ascribed to each approach (high, medium, low) to help gauge the overall aesthetic character of the experience. The ratings are useful to understanding how the aesthetic path of the canal might be affected by different management and treatment decisions. For the purpose of this study, a restoration treatment was selected. A predicted aesthetic quality for the canal is provided based on the assumption that the canal can be restored to its historic appearance (Table 3).

The comparison reveals that there may be aesthetic reasons for allowing the canal to remain in its current condition (Table 4). As the canal continues to evolve, it takes on different aesthetic qualities than it originally possessed. Viewing the aesthetic character of the canal as a continuum allows a more distinct understanding of the past, present, and future of the canal. Restoration, on the other hand, may enhance some of the canal’s aesthetic qualities, but it may not be true to the evolution of this landscape feature.
Table 2
Current Aesthetic Qualities of the Canoa Canal Remnant

<table>
<thead>
<tr>
<th>Aesthetic Approach</th>
<th>Aesthetic Response</th>
<th>Aesthetic Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Formalism</em></td>
<td>There are qualities of form, shape, color, and line that make the canal attractive in its current state. The canal has ephemeral qualities that cause changes to its appearance throughout the year.</td>
<td>Med</td>
</tr>
<tr>
<td><em>Knowledge</em></td>
<td>Because the function of the canal is no longer apparent, it is difficult to place it in a category. It could be considered non-aesthetic because it does not fulfill its original function.</td>
<td>Low</td>
</tr>
<tr>
<td><em>Imagination</em></td>
<td>Perception of artifacts, including extant gate boxes and culverts, triggers imaginative response of how the canal may have once functioned and connects its former function to larger ecological and human systems on the site.</td>
<td>High</td>
</tr>
<tr>
<td><em>Framing</em></td>
<td>Recognition that the canal is a human object that no longer functions as designed helps me appreciate the ongoing narrative of the canal. Appreciation of the unscenic aspects of the canal is possible because it is part of the narrative.</td>
<td>Med</td>
</tr>
<tr>
<td><em>The Dialectical</em></td>
<td>The tension between nature/culture is apparent in the disuse of the canal and the colonization of plants. Sediment fills the canal, but it still fills with water and provides habitat. The canal can clearly be imagined as a human artifact.</td>
<td>High</td>
</tr>
<tr>
<td><em>Engagement</em></td>
<td>Exploring the canal is rich in sensory experiences. As a ruin, the canal can be accessed in ways it could not when functional, leading to a variety of experiences.</td>
<td>High</td>
</tr>
</tbody>
</table>
### Table 3
Anticipated Aesthetic Qualities of the Canoa Canal with Restoration Treatment

<table>
<thead>
<tr>
<th>Aesthetic Approach</th>
<th>Aesthetic Response</th>
<th>Aesthetic Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Formalism</strong></td>
<td>Lushness would provide an atmosphere that is rich in aesthetic experiences. Increased wildlife would bring a special quality to the canal. The canal would be an attractive backdrop to the historic setting.</td>
<td>High</td>
</tr>
<tr>
<td><strong>Knowledge</strong></td>
<td>Filling the canal with water returns some of the function to the canal. It is easier to appreciate the canal as a canal when it has water, even if the canal is no longer functional.</td>
<td>Med</td>
</tr>
<tr>
<td><strong>Imagination</strong></td>
<td>It is possible to use imagination to connect the canal to more historic activities at the ranch and to other experiences the visitor has had with water. Because the setting is relatively intact, there is less for the imagination to “fill-in.”</td>
<td>Med</td>
</tr>
<tr>
<td><strong>Framing</strong></td>
<td>The canal can be appreciated as a restored element of the landscape. Knowing that the canal was originally constructed makes it possible to appreciate it as a reconstruction of an artifact and not a naturally occurring system.</td>
<td>Med</td>
</tr>
<tr>
<td><strong>The Dialectical</strong></td>
<td>The canal is clearly a human construct and if managed to prevent change, will not possess dialectic qualities for the visitor.</td>
<td>Low</td>
</tr>
<tr>
<td><strong>Engagement</strong></td>
<td>Walking along the restored banks of the canal is an experience that engages multiple senses. The experience will change during different times of day and year.</td>
<td>Med</td>
</tr>
</tbody>
</table>
### Table 4
Comparison of Canoa Canal Management Strategies

<table>
<thead>
<tr>
<th>Aesthetic Approach</th>
<th>Preserve/No Change</th>
<th>Restoration to Historic Appearance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Formalism</strong></td>
<td>Med</td>
<td>High</td>
</tr>
<tr>
<td><strong>Knowledge</strong></td>
<td>Low</td>
<td>Med</td>
</tr>
<tr>
<td><strong>Imagination</strong></td>
<td>High</td>
<td>Med</td>
</tr>
<tr>
<td><strong>Framing</strong></td>
<td>Med</td>
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</tr>
<tr>
<td><strong>The Dialectical</strong></td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td><strong>Engagement</strong></td>
<td>High</td>
<td>Med</td>
</tr>
</tbody>
</table>
VI. DISCUSSION AND CONCLUSION

In this study, I developed a framework for the appreciation of cultural landscapes based on philosophy emerging from the field of environmental aesthetics. My hypothesis was that the field of environmental aesthetics offered answers to some of the complex questions being asked in the applied landscape disciplines of landscape architecture and historic preservation. The fundamental question to be answered was how can aesthetics be used to develop appreciative and interpretive techniques that can accommodate the dynamic processes and values of landscapes? A primary objective was to see if environmental aesthetics could be used to develop a framework for more individual engagement with the landscape. Theorists in environmental ethics consider aesthetic appreciation of the environment to be effective at fostering a more caring and respectful attitude towards the environment.

A more specific goal was to test the suitability of using aesthetics in a historic preservation context. The need to augment existing preservation treatments with new interpretive techniques suggested an aesthetic approach where a broader continuum of landscape processes could be embraced. The Canoa Ranch, a remnant cultural landscape with traces of a rich and storied past, was chosen as a site to assess the effectiveness of the framework. Environmental aesthetics provides a rich analysis tool for historic properties because it has implications for both the visitor experience and how important resources are managed.

There are problems with the proposed framework that would need to be overcome for an aesthetic approach to work. The philosophy behind the approaches may be too
complicated for many users. Concepts such as “appreciating unscenic nature” are probably foreign to how most people experience the world. To make an unscenic experience relevant, the visitor would need to be educated on the importance of the concept. Because of society’s emphasis on scenic beauty, it seems farfetched that many people would accept the concept. Leaving unscenic portions of the landscape intact may be criticized by visitors who expect the landscape to be manicured. Nassauer’s framing approaches may be useful for composing “unscenic” nature in a manner that is acceptable to visitors.

Another difficulty with the framework is in its application. The aesthetic approach requires engagement, moving beyond ocular-only appreciation towards full immersion in the landscape. Site managers who are already concerned about visitor safety and protection of resources might be hesitant to allow visitors full access to unmanaged landscapes. Guided aesthetic tours or restricting access to specific experiences may be one way of structuring the site.

The perceived subjectivity of individual aesthetic responses may be a concern at sites with specific educational objectives. While there is nothing intrinsically wrong with visitors having unprogrammed aesthetic experiences, it may be problematic from an educational standpoint, especially if the experiences are trivial or ungrounded. Aesthetic theories have been developed to address the subjectivity claim. Carlson’s requirement that aesthetic judgments be derived from scientific knowledge and placement of the object in the correct scientific category is one approach suggested by the literature. This approach seems promising towards insuring that responses are accurate and meet the
educational objectives of the site. Knowing exactly what one is looking at is helpful towards evaluating its aesthetic appeal. Knowledge is especially useful in forming moral and ethical attitudes about the landscape. Full disclosure of how something works or affects the environment may make it possible to have a moral objection that triumphs over an aesthetic response.

Where Carlson’s theory is problematic is in its application to traces on the land. Remnant agricultural and ranching artifacts may be too indeterminate to be placed in a specific category. A resource could also be one-of-a-kind, making categorization more difficult. A problem with the existing inventory of cultural landscapes is that the approach is too narrow and obligates resources into overly limiting categories. Carlson’s approach would seem to reinforce the idea that all resources can be placed in specific categories. Carlson’s model seems better suited for natural resources, for which it was originally intended.

Disinterestedness appears to be a more reliable method of directing aesthetic responses. A disinterested stance requires that the aesthetic response be distanced from the personal desires and expectations of the observer. Focusing on the perceptual qualities of the object directs the aesthetic response towards certain possibilities and away from others. In contrast to placing a resource in a specific category, disinterestedness provides the observer with a more open approach. Working with the perceptual qualities of the object, the observer can use imagination and framing techniques to discover the aesthetic character of the object. Using disinterestedness, it is likely that those responses will be relevant to the object or landscape being appreciated.
While there remains the possibility of having many different aesthetic responses, it may not be possible to utilize every aesthetic approach on a particular site. Visual approaches will likely still dominate appreciation unless measures are taken to encourage appreciation by other methods. A comprehensive approach that includes all the aesthetic frameworks suggested would require an experiential education component, similar to the program developed by Brady, Holland, and Rawles (2004) on the island of Rum, off the west coast of Scotland. The program emphasizes direct experience with the environment and contact with the professionals responsible for management and conservation of cultural and natural resources. Having visitors meet with site managers to understand why certain decisions were made would provide context and knowledge that could be valuable to appreciating a site. Visitors should understand that management decisions are on-going and based not only on sound conservation principles, but also on community values. In communities like Pima County, where land conservation is publicly funded, it is important to continue to involve the public in conservation decisions beyond the initial purchase of the land. Opportunities for members of the community to experience a site and work with site managers would help encourage a conservation ethic.

The proposed aesthetic framework is effective at capturing the unique qualities of cultural landscapes. Too often ordinary landscapes are overlooked for appreciation because they do not possess the same dramatic beauty found in more natural landscapes. Understanding the dialectical has a significant impact on how landscapes in transition are appreciated and interpreted. The dialectical presents a tangible device for interpreting landscape change. Through the dialectical, it is possible to understand the natural and
cultural processes that are at play in cultural landscapes. Stone walls are a good example of a living feature that continues to evolve and change as a result of both human and natural conditions. The dialectical is an environmental aesthetic approach that can be utilized by interpreters to more fully capture the dynamic qualities of the landscape. Contrasting the dialectical approach against preservation approaches designed to resist change may be an effective interpretive tool.

Another approach that may be effective for appreciating the unique qualities of landscapes is imagination. More scientific approaches to appreciation may interest certain observers, but in many cases a more open and flexible framework is needed to engage people in the environment. Arguments for giving imagination a more prominent role contend that imagination is the way that landscapes are often perceived. While this may be the case, there is not much research on using imagination in aesthetic experiences. Brady’s approach for using imagination in environmental aesthetics deserves more consideration, especially if it is an approach that people can use to enjoy the landscape.

Eaton’s and Carlson’s concern that imagination leads to unsubstantiated claims that could lead to misinformed environmental decisions may be well founded. The flip side, however, is that science-based appreciation requires specific knowledge and the discipline and patience of the observer to capture the aesthetic experience. Not everyone desires to see the environment from a scientific perspective. Spiritual and imaginary approaches will need to be considered valid if the cultural participation needed to sustain the environment is to be realized.
The vibrancy of the environmental aesthetics field is one of its great strengths. In the last few decades, aestheticians have framed discussions on ethics and the environment, ecological design, and the changing agricultural landscape. As a theory base, environmental aesthetics should be looked to by landscape professional for guidance and critique. Applying environmental aesthetic criteria to the design process is one way of engaging with aesthetic theory and could generate more interaction between theorists and practitioners.

Environmental aesthetic theory should also play a more prominent role in education of professionals involved in resource management and environmental design. A greater emphasis should be placed on directing aesthetic theory beyond the concerns of composition, form-making, and visual qualities. Experience and training with environmental aesthetic theory can be accomplished with field trips that encourage perceptual engagement. Introducing the aesthetic framework in the design studio would be one way of assessing the effectiveness of environmental aesthetic approaches. Similar to site analysis techniques, an approach could be developed where students document and analyze the aesthetic characteristics of a site as a foundation for design. Still other approaches may be possible for modeling the existing aesthetic quality of a site so it can be properly considered in landscape planning and design.

Several lines of inquiry could be more fully explored to develop an aesthetic framework for the management and interpretation of cultural landscapes. A survey of historical and environmental sites that utilize what could be considered environmental aesthetic approaches should be conducted. Gaining popularity in Europe, the ecomuseum
movement may be a good model to study because it embraces the participatory ideal of engagement and the interconnectivity of humans and the environment (Davis 1999).

The alignment of the different environmental aesthetic approaches with objects of aesthetic appreciation, as discussed in this paper, is the first step in developing a conceptual interpretive framework that is rewarding to the visitor and respectful of the resources. Understanding how environmental aesthetic approaches can be used throughout a site as a unifying component of the experience is also needed. Environmental aesthetics will be most valuable when it is applied across an entire landscape, and not pointed at specific features. Developing approaches that are inclusive of the entire landscape and not specific features is critical to moving from theory into practice.

Environmental aesthetics requires taking a gentler, and perhaps humbler, approach to landscape planning and design. An environmental aesthetic approach requires using what is available to tell the story in its own engaging way. An understanding and appreciation of the underlying narrative directs management and interpretive decisions towards an approach that honors the site’s past within a framework that allows for future change. From this study, it is possible to see how design and management decisions that are congruent with the narrative have the potential to be aesthetically appealing and more informative of the specific stories, values, and patterns of a site. Using environmental aesthetic theory to develop interpretive approaches that are complimentary to existing preservation and management frameworks can illuminate the path of discovery and meaning in the landscape.


