

Architectural Regionalism:
Promoting a Sustainable Regional Design

A Thesis Presented to:
The Southwest Studies Program at Colorado College

Thesis readers:

Eric Perramond

Carl Reed

By Steve Reighley

May 2012

Abstract

This study focuses on the nature of and questions concerning the built environment. This paper deals with the concept of creating a regionally appropriate environmental architecture within an increasingly globalized and modernized society. Architectural regionalism is the central theme of this paper and deals with issues surrounding the ability to create buildings that are not only regional in style, but also that function in concert with the local and global environmental and ecological contexts. My thesis is that architectural regionalism, as a way to create a built environment that is connected to the regional climate, resources and culture, results in better and more sustainable places for people to live.

Table of Contents

Introduction...	4
Objectives...	6
Methods...	7
Architectural Regionalism...	8
Vernacular vs. Regional Architecture...	10
Regional Architecture...	11
Regional Architecture in the United States...	12
Regional Architecture in the Southwest...	13
Case Study: Taos Earthship...	16
Ideas of Place...	17
Ideas of Regions...	19
Tradition and Modernity...	21
Universal Architecture...	23
Sustainable Design...	25
Conclusion...	30
Works Cited...	32

Figures

- Figure 1. Mesa Verde cliff dwellings, Colorado...pg. 5
- Figure 2. Santa Fe Style regional architecture, New Mexico...pg. 11
- Figure 3. Canyon de Chelly cliff dwellings, Arizona...pg. 14
- Figure 4. Taos Pueblo, New Mexico...pg. 15
- Figure 5. Conceptual diagram of cliff dwelling seasonal sun capture...pg. 16
- Figure 6. Earthship, outside of Taos, New Mexico...pg. 17
- Figure 7. Native American at Bandelier National Monument...pg. 17
- Figure 8. Villa Savoye, International Style architecture...pg. 24
- Figure 9. International Style architecture...pg. 24
- Figure 10. Emerald home in Santa Fe, photovoltaic solar panels...pg. 30
- Figure 11. Emerald home in Santa Fe, mud brick wall construction...pg. 30

Acknowledgements

I would like to thank a variety of people who have inspired me, influenced me, and given me the opportunities to have many memorable and life changing experiences. I would like to thank Colorado College and the Southwest Studies Program at Colorado College for providing me with a venture grant to travel throughout the Southwest as part of my senior capstone project. Also, I would like to thank my advisor Eric Perramond for being supportive and helpful throughout this entire experience. He has helped me work through the various stages of this process and given me a great deal of helpful advice, information and feedback. Lastly, I would like to thank my parents for giving me the privilege to travel and experience many diverse parts of the world. Every travel experience I have had has had a lasting impact on me as a person and has given me the chance to experience and understand the world in ways I would have never imagined. There is something inherently special about witnessing or experiencing the unique architecture of different regions. There is a certain appeal to visiting traditional villages in developing countries or to experience architecturally unique cities. Much architecture is distinct and is influenced by the culture, climate, topography, and locally available resources. Through my travel experiences I have developed a particular feeling for the importance of trying to preserve many types of architecture, cultural traditions and natural environments. Without the support of these people this paper would not be what it is, thank you.

Introduction

Regional architecture is disappearing as it is being replaced by a modern, universal architecture. Originally the inhabitants of a specific region created architecture that reflected an intimate connection with where they lived. In today's world, the forces and effects of globalization and modernization are minimizing and threatening architectural diversity and its connection to place. Human life has become unsustainable and has become increasingly detached from local and regional contexts, both environmentally and culturally. Tangled in the conflict between tradition and modernity lie the issues concerning how to deal with the modern built environment. As universal architecture has become dominant, there is the ever-present threat to, and degradation of both cultural and natural environments.

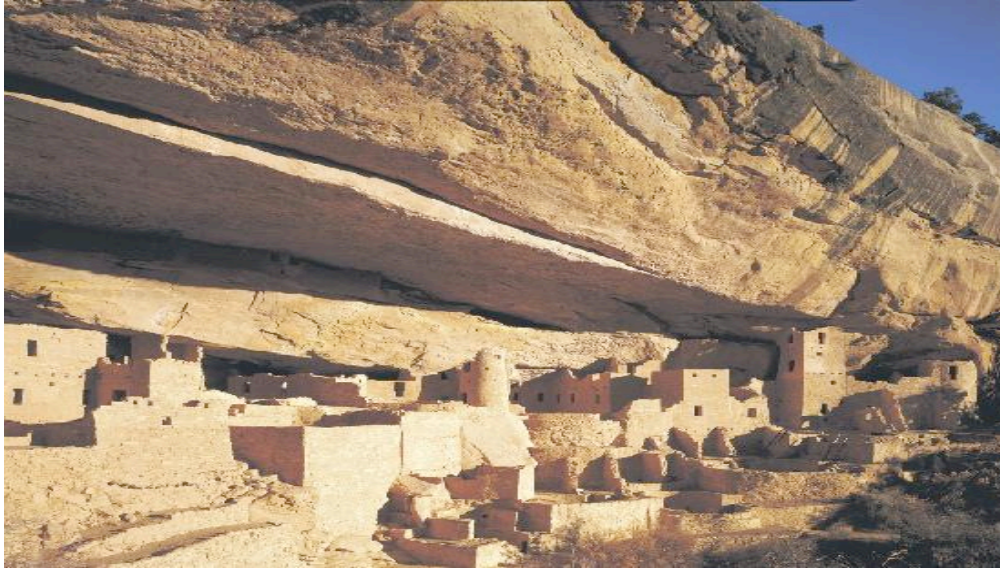
Architectural regionalism is a theory and practice that is a reaction to an architecturally globalized world. Architectural regionalism counters the ideas of placeless-ness and building standardization and promotes the need and even desire for an intentionally local and regional built environment. Architectural regionalism suggests the possibility of creating dwellings that are intimately connected with natural and cultural realities of a region. It is essential to understand the local culture and environment in order to create a building that is suitable to where it exists. "Architecture, as a reflection of man's longing for order and for adjustment to his natural surroundings, has always been (or at least until not long ago) regional in its essence and character" (Bellushi, 1955, 321). Despite the complexity of issues in today's architectural world, the potential still exists through architectural regionalism to live a good life in regionally rooted context.

This paper discusses the ideas and possibilities of a modern, regionally appropriate environmental architecture.

“Over the last decade there has been an exciting change of direction in architecture, pioneered by a new generation of natural architects from many countries. All share a reawakening of consciousness for designing, building, and living that puts us back in touch with the earth and ourselves. This consciousness is as old as building itself, reaching back through ethnic traditions across the world. Our ancestors were more sensitive to their environment. They developed a particular sense of place and time, and knew the vital importance of honoring the primeval forces. Everywhere, indigenous building strove to express a harmony between people, land, and cosmos—to make forms that linked earth to spirit” (Pearson, 1994, 12).

Throughout the area of the Southwest, there is a great deal of evidence of very well adapted architecture.¹ Within the large region of the Southwest, many great examples of architecture exist that provoke a dialogue with the landscape and its people; these have become the focus of my research. The earliest forms of this type of architecture began long before the Europeans invaded America. Although many things have changed since then, this indigenous architecture still exists in a variety of forms today. The origins of this indigenous Southwestern architecture are truly connected to the land and indigenous traditions of the Southwestern cultures. This primeval architecture can serve as the basis for understanding a regionally rooted architecture. As seen in Figure 1 indigenous architecture is so deeply connected to the land can be hard to distinguish these forms from the surrounding landscape.

¹ By Southwest I mean the area that includes Colorado, New Mexico, and Arizona, as these were the focus of my study, yet a variety of regional definitions exist for the Southwest that may include Utah, Nevada, and California.



(Figure 1. Mesa Verde Ruins cliff dwellings. Source: Mesa Verde National Park Visitors Bureau)

Because the Southwest has such a unique and interesting architectural history, questions arise about what the approach should be to modern architecture of this particular region. This is not only a question for the American Southwest but can apply to any region or country that contains a rich history of unique regional architecture. “The modern challenge then becomes to combine function and aesthetic value into and “enduring architecture” that cooperates with nature and works in concert with ecological principles” (Harris Butt Architecture). “Architecture that heals the heart, our biological systems, and the environment is sustainable. It needs to be shaped by and for a region’s conditions. The green past has relevance for the future” (David Miller, 2005, xi).

Objectives

The goal of this research is to understand the possibilities of architectural regionalism as informed by Southwestern examples. Through the study of architectural regionalism, a clear understanding of Southwestern regional architecture will develop. Specifically, architectural regionalism as a theory and practice will reveal the strong

connections that can and do exist between Southwestern architecture and sustainable design. The goal here is to bring to light the relationship between regional aesthetics and the function of sustainable architectural forms. Through a careful study of the history of Southwestern architecture, from the earliest indigenous forms up until the present day much can be learned about this dynamic relationship that is inherent to architecture.

Part of this research aims to understand the possibilities of utilizing a combination of indigenous and modern building practices when designing and constructing a new building. A central theme will be the importance of ecological and environmental considerations when using new and traditional design approaches to create a modern regional architecture. This paper will also discuss the ideas and concepts of place and region in order understand architecture in a meaningful context; not simply as something that exists without any connections to the broader environmental and cultural contexts.

Methods of research

During a two-week span, I spent my time performing site visits in the Southwest. I traveled through a variety of places in Colorado, New Mexico, and Arizona and visited a variety of sites and people involved in the fields of architecture, regional planning, and sustainable design. Throughout this paper I will use this trip as a reference for discussing regional architecture, sustainable design, and architectural regionalism.

My main method of research consisted of participant observation. At each of these places I observed the regional characteristics of the environment and the architecture. Along with observation I did a great deal of photographic documentation in order to compare and contrast variations among the architectural environment through

photographs. Another primary method of my field research involved informant interviews. Many of these interviews have provided beneficial information about interpreting the architectural environment of the Southwest. After my field research I conducted an extensive literature review of regional architecture, sustainable design and architectural regionalism and these places and buildings have served as a way for me to relate my experience in the field to the ideas and concepts discussed in the literature.

The major places I visited include Taos, Santa Fe, Albuquerque, Tucson, Phoenix, Canyon de Chelly, Mesa Verde, and Durango. Many of these places serve as examples of how architectural regionalism has the ability to promote better and more sustainable place to live. This is not to say that every building in each place is sustainable and exudes a distinct regional aesthetic; some places certainly exhibit more regional and sustainable forms than others. Many contrasts exist in the Southwest as evidenced by the metropolitan areas of Albuquerque, Tucson and Phoenix. It must be understood that within each of these places examples of good and bad regional architecture exist; none of these places can be thought of as some regional architectural utopia. This research method uses the results of the site visits, photos, and interviews to provide a critical reflection of Southwestern architectural regionalism.

Architectural Regionalism

My argument is that regionalism is essential for architecture. I believe that regionalism has the ability to promote deep connections to a particular place and can respond to the needs and conditions of a specific region. Specifically, I feel that within architectural regionalism lies the possibility of creating a more sustainable built

environment. I think there is a strong potential for architectural regionalism as a theory and practice to establish an architecture that has a deep connection with the environment and establish or continue a sense of place. The majority of regionalist thinking shares the common goals of “establishing connections, through architectural means, between people and the place in which they live”(Canizaro, 2005, 17). I believe that architectural regionalism has the ability to simultaneously create a distinctly regional and environmentally appropriate built environment.

Architectural regionalism as a theory and practice has the ability to transcend just architectural style and aesthetic concerns and can be a much deeper and developed architectural discourse. “Regionalism is the preeminent discourse in architecture that focuses on design in terms of particularity and locale”(Canizaro, 2005, 12). “Every great concept, work of art, institution, world-wide movement has a birthplace. The special nature of the place has something to do with what is born—even that fact it is born at all. It is born there because a special combination of ingredients exists there. It survives and develops because it is protected and nurtured there. Neither birth nor nurture occurs in an undefined place. It occurs in a region” (Harris, 1978, 67). Regionalism is a theory that advocates a resistance to various forms of hegemonic, universal, and standardized forms. Architectural regionalism often includes processes that involve designing in response to the local climatic and topographic conditions. Here, new environmentally sustainable practices can be employed while still retaining the stylistic characteristics of a region. Other regionalist theories can be much more complex, involving complicated political, economic, and social changes. Regardless of how simple or complex a regionalist theory is, they all share common goals. “Some consistent themes within architectural

regionalism are the resistance to standard forms, a concern for authenticity, and creating a connection “among people of the specific culture, history, identity and ecology of their region” (Canizaro, 2005, 21).

Vernacular vs. Regional

In the discourse of architecture, regional architecture is often distinguished from the vernacular in that it is a response to local conditions by choice, not necessity. Adolf Loos said, “The peasant builds a roof. Is it a beautiful roof or an ugly roof? He doesn’t know—it is the roof as his father, grandfather, and great grandfather had built the roof before him.” The vernacular is not concerned with aesthetics and style, it is simply a functional form that has resulted from the conditions of a particular place and has been continually used over time. Interestingly, in the earliest indigenous architectural forms, vernacular and regional were one of the same where the use of local materials inevitably conveyed unique stylistic elements, unintentionally. In today’s world there are countless examples of regional architecture that exude elements of regional style without any use of local materials, therefore not vernacular. As seen in Figure 2 these houses outside of Santa Fe exhibit the architectural aesthetic called the Santa Fe Style but are not necessarily constructed through the use of local materials. Regionalism and regional architecture is based on choices made by architects, builders, planners, or even politicians who consciously create a particular built environment. “The vernacular is often characterized dubiously as “unconscious,” which is meant to suggest that it is not purposefully regional, but only accidental” (Canizaro, 2005, 20). Within architectural

regionalism lie many ideas about reconnecting vernacular forms of building with regional styles, producing what could be called a sustainable regional architecture.



(Figure 2. Photo of Santa Fe Style regional architecture, outside of Santa Fe facing the Sangre de Cristo Mountains. Source: Photo taken by the Steve Reighley, December, 2011.)

Regional Architecture

“The complex tapestry of physical patterns that are inscribed in the landscape, in concert with political, cultural, technological, and economic epochs and defining historical events, form the collective basis for regional identity. In the midst of this myriad of interconnected phenomena is architecture” (Cassidy, 2000).

In the case of this paper I am promoting regional architecture as architecture based on specific regional practices revolving around climate, geography, local materials, and local cultural traditions. In talking about the Southwest, John Gaw Meem said, “we are fortunate in this region in that we have a style of architecture that uniquely belongs to

us and visually evokes memories of our history and our earth itself” (Meem, 1966). A regional architecture is one that reflects the natural and cultural realities of its particular region. Regional architecture understands the building site and creates a design that is connected to the land and its history. In order to understand regional architecture it is essential to understand the natural and cultural conditions of the particular region of focus, in this case the Southwest. Things such as the climate, topography, methods of construction, and stylistic elements are all factors that have resulted in various regional architectures throughout the world.

Regional Architecture in the United States

The United States has a wide variety of architectural styles, probably more than any other country in the world. This wide range of architectural styles in the United States is a result of the variety of climates, topographies, resources, and many different ethnic histories. The presence of both European and indigenous people have created distinct regional styles throughout the country. It is important to remember that architecture is always strongly influenced by past building experiences. In regards to the English colonists who came to New England, “Many of the colonists came from rural districts where wood was still plentiful and buildings were of the time-honored “half – timber” construction...The colonists were thoroughly familiar with this type of structure and finding wood plentiful in the New World, they employed it widely”(Newcomb, 1965, 83). The colonists soon realized that their mode of construction would not do in the different climate of New England. Here is an example of the environment taking precedent over a historic architectural method. As people move throughout the world,

architectural methods and styles suitable to one environment are not necessarily suitable to another. “How amusing thus becomes an English Gothic cathedral in Singapore or a New Mexican Colonial hacienda in the Mohawk Valley of New York” (Newcomb, 1965, 82). Although these may be beautiful and functional buildings, they are not good examples of regional architecture when they have been separated from their region of origin. The kind of regional architecture I am promoting is the type that adapts to the conditions of the environment and establishes new, unique characteristics, an architectural evolution. Although a great deal of architecture was imported from Europe, new regional styles developed as architecture met different cultural and environmental conditions in the United States.

Regional Architecture in the Southwest

The American Southwest is a very diverse region made up of a variety of landscapes and cultures. There have been people living in the Southwest for thousands of years. The unique region of the Southwest has shaped the various cultures of the area as people learned to adapt to the particular climatic conditions. The indigenous people developed agriculture, religious and social structures, and their own architecture. The Southwest is a predominantly arid climate; it is a region with limited water resource and abundant evapotranspiration. The people of this region have certainly reacted to these conditions in order to create livable dwellings. Southwestern indigenous architecture has and will continue to play an important role in influencing the architecture of the Southwest.

The North American Indian before the arrival of the Europeans developed a wide variety of shelters. In most of these cases, these were impermanent dwellings that

represented a nomadic lifestyle. The Anasazi Indians however developed a sedentary civilization based on agriculture and because of this permanent dwellings arose. These structures were made out of adobe, stone, and wood. This approach resulted in a distinctly regional architecture. William Morgan has explained, “each site’s response to the precise nature of its special place imparts an integral character to its architecture.” In comparison to modern architecture, the indigenous people did very little to disturb the natural environment in the process of building their structures. Their sensitivity to the landscape, as reflected in their architecture, reveals their intimate relationship with the natural world, a characteristic vital to living in sustainable ways.

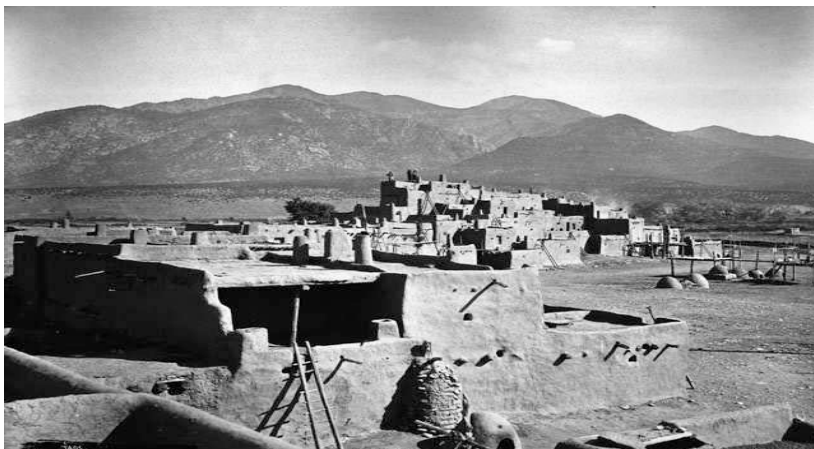
Amazingly many of these permanent dwellings still exist and may be studied throughout parts of New Mexico, Arizona, and Colorado. The ruins I visited at Mesa Verde (see Figure 1) and Canyon de Chelly (see Figure 3, below) are great examples of this type of architecture.



(Figure 3. Canyon de Chelly. Source: Wikimedia Commons, 2006.)

The Pueblo people, descendants of the Anasazi also have an interesting architectural history. The Spanish encountered a culture with an established architecture

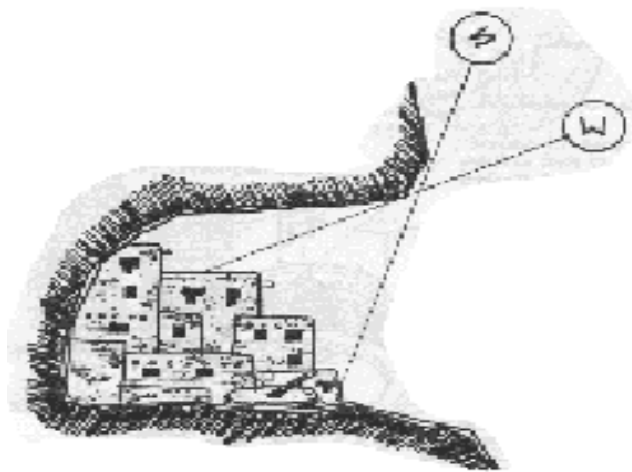
and, as these cultures interacted, the Pueblos were able to retain important elements of their own forms and incorporate them into buildings they constructed under the control of the Spanish (see Figure 5). “Here the Spaniards found a sedentary Indian population which had already developed an appropriate native architecture. Thus when the conquistadores employed these Indians to build structures with European plans and utilities out of native materials, there resulted a new regional type, half Spanish, half Indian, the like of which has been nowhere else evolved” (Newcomb, 1965, 87). Trent Sanford said, “some changes were made, but, the materials and their limitations remained the same, these changes consisted principally of certain improvements in practice due to new requirements, improved tools, and a broader background of construction experience. Imposed on the logical Indian style and with Indian labor, the blend was a harmonious one” (Sanford, 1950, 29). The changes that Sanford mentions brings up ideas that will be discussed further along in the paper about cultural continuity and progress. Importantly this example speaks to the power and resilience of early Southwestern architecture. Because these forms were so deeply rooted in their regional context, they were able to survive and maintain their essence regardless of outside influences.



(Figure 5. Taos Pueblo, NM, photo taken 1880 by John Hillers. Source: NewMexicoHistory.org)

This indigenous architecture is truly unique. These buildings were constructed with a high level of independent architectural development. The indigenous architecture of the Southwest certainly deserves the attention of the modern architect. Figure 4 displays a diagram of cliff dwellings ability to effectively utilize the power of the sun in relation to the changing seasons. These early shelters display examples of designing in harmony with the ecological conditions of the region.

(Figure 4. Diagram displaying cliff dwellings' ability to capture low angle winter sun, and to avoid high angle summer sun. Source: New Mexico Solar Energy Association)



Case Study: Taos Earthships

The Taos Earthships are a unique example of a type of modern architecture that connects man-made and natural systems to create a sustainable model for building a home. These sustainable buildings originated on the outskirts of Taos and have gained immense popularity throughout the world. The Earthships incorporate the use of recycled materials, water collection, natural cooling and heating. The Earthships are influenced by architectural regionalist theory focused on a deep understanding of ecological building principles. “A society which practices living-in-place keeps a balance

with its region of support through links between human lives, other living things, and the processes of the planet—seasons, weather, water cycles—as revealed by place itself. It is the opposite of a society which “makes a living” through short term destructive exploitation of land and life. Living-in-place is an age-old way of existence, disrupted in some parts of the world a few millennia ago by the rise of exploitative civilization, and more generally during the past two centuries by the spread of industrial civilization” (Berg, Dasmann, 1977, 335).



(Figure 11. An Earthship, photo taken outside of Taos. Source: photo taken by Steve Reighley, December, 2011.)

Ideas of Place

From the outside observer many of these architectural qualities and traits are certainly observable, but what did this feel like to the original inhabitants? How did they experience the spirit of these places, the quality of these place, what did they mean to them? It is interesting to think that a regional environmental architecture is often a result of peoples highly developed sense of place. These are central questions in order to understand sustainable regional architecture.



(Figure 6. Bandelier National Monument. Source: Architecture of the Southwest)

At the heart of regional architecture lies the question of what makes a particular place or region unique? First and foremost we must understand what is meant by place and region. Although both of these terms are highly ambiguous, and may be seen differently by different people, it is essential for the purposes of architecture to understand them in a deep and developed way.

Broadly speaking, place and region are ways of describing certain aspects of space. “What begins as undifferentiated space become places as we get to know it better and endow it with value” (Tuan 1977, 6). “Home is an exemplary kind of place where people feel a sense of attachment and rootedness. Home, more than anywhere else, is seen as a center of meaning and field of care” (Cresswell, 24). Although, ultimately, place may simply be the subjective connections people make with space, it are these connections that give our life meaning. As Lewis Mumford said “Regionalism suggests a cure for many current ills. Focused in the region, sharpened for the more definite enhancement of life, every activity, cultural or practical, menial or liberal, becomes necessary and significant; divorced from this context, and dedicated to archaic or abstract

themes of salvation and happiness, even the finest activities seem futile and meaningless, they are lost and swallowed in vast indefiniteness” (Lewis Mumford, 1928, 140).

Sense of place becomes an important aspect in regional and sustainable architecture. “Sustainable architecture has allowed people to become more in touch with the environment in which they live. It incorporates natural landscapes into the buildings design which gives people a better connection to the land. It also takes into account all of the environmental effects which a building will have on a place. Green design is based out of creating buildings which fit into their natural surroundings and give the people who use them a sense of place, as opposed to a conventional architecture which pushes people away from the natural environment”(Ludlow, 2007). As society has pushed us further away from a deep connection to the natural environment it is undeniable that many Americans have little real attachment to place in the way that older and indigenous peoples once did. “Thus, green architecture embodies a sense of place that differs from that of the “endless frontier” of the eighteenth, nineteenth and much of the twentieth centuries, where individualism and conquest led to buildings that optimized isolation from the environment rather than optimization of the environment”(Vallero, Brasier, 169, 2008). In regards to the material world, such as the landscape, and the built environment, it becomes essential to establish a deep, personal, internal connection to where you live in order to experience a meaningful and wholesome life.

Ideas of Regions

If place is thought of on a more individual, subjective level, region differs in that they are larger geographic area that have boundaries. The “boundaries” may be

determined by a variety of cultural and natural characteristics. An example of a natural characteristic might be a particular watershed, or climatic zone such as “the arid Southwest.” Bioregionalists for example determine a region based on ecological considerations, particularly watersheds. An example of a cultural characteristic would be political boundaries or jurisdictions, such as states. Regions may be defined by cultural and natural characteristics either together or separately. Susan Ozkan tends to see these two characteristics together. “A geographical region defines many aspects of a society both culturally and environmentally. Culture includes aspects of life and prevalent modes of expression. Natural environment includes climate and topography. A region, when properly defined, represents all of these in a very complex amalgamate”(Ozkan, 1985, 103). Importantly, regions may vary in size depending on the factors by which they are determined. We often hear of “the South” as a region even though it is made up of many different political states and natural environments. Similarly, “the Southwest” which has been a major focus of my research, consists of many different political states. It is very important to understand that “regional boundaries are fuzzy and indeterminate: the edge is most often a gradation rather than a starkly drawn line, the exception being political criteria, where the often arbitrary like tends to be all too clear” (Canizaro, 2005, 16).

Once a region is deeply analyzed one will have a better understanding of the most important and prominent attributes. Analyzing the particular attributes of a region is essential in creating a modern regional architecture. As different environments and buildings are analyzed, many things can be learned about how to intelligently plan, design, and build for a particular region. Looking at a region from a variety of

perspectives and academic disciplines will result in a more holistic understanding of a region and will provide the best set of theories and practices for creating a sustainable regional architecture. In the face of modernization and globalization it will be essential for designers, planner and architects to understand the regional character not only of the landscape but of the people as well, in order to preserve and develop the region appropriately. “Regionalism is not a fixed concept. No region, whether natural or cultural, is stable” (Frankfurter, 1965, xvi). The development of regionalist theories has proposed “alternatives in the form of methods and criteria for the respect, revitalization, and, if necessary, reconstruction of life along regionally determined lines.” (Canizaro, 2007, 20) In today’s world regionalism should realistically be concerned with creating connections between the traditional and modern possibilities of a region.

Tradition and Modernity

Modernity has resulted in environmental destruction and the loss of a sense of place through processes such as globalization. In today’s highly globalized world, universal architectural forms can exist anywhere in the world. Through these processes we often see a loss of rich cultural traditions, including traditional architecture. Throughout the world, architecture has become standardized, creating housing style homogeneity. This standardization of forms clearly takes away from regional differentiation and it seems that the built environment has become increasingly detached from the essence of its region, both naturally and culturally. I believe a balance can exist within the dialect between modernity and tradition where the new can be built with a regard for the traditional. “Tradition and modernity are merely two sides of the same

coin—and must be dealt with simultaneously. Building cannot be a rigid dogma, but a living, organic, ecological project. It is about continuity, based on memory, common sense, and experience, and is the foundation of invention” (Khan in Pearson, 1994, 122).

Throughout the Southwest, architectural regionalism as a theory and practice raises questions about how deal with the very apparent regional architecture. These issues arise out of a deep struggles for cultural continuity and the desire for progress and innovation. “At its best, tradition is dynamic, a context in which growth and change are measured; at its worst, it is static, permanent, a means to hamper growth, or a declaration of cultural difference” (Bechhoefer, 2000, 4). Architectural regionalism in many ways deals with the evolution of regional architecture and is a means by which this conflict between tradition and modernity can be resolved. “There is no need to create a new identity to fill the void that was created when nature and traditions died; there is only the need to foster opportunities for the soft voice of the landscape to be heard above the ambient roar created by instruments of globalized civilization” (Cassidy, 2000). This can be achieved through architectural regionalism by employing practices that connect architecture and people to the natural environment in which they live.

“The main critical movement, as a reaction to modernism, is regionalism” (Ozkan, 1985, 103). In response to modern architecture, architectural regionalism can consciously take what it needs from modern technology and blend it with the most practical traditional forms. “Accepting the need to synthesize our past with present technology, we need to examine our roots and understand them before achieving a creative life...in architecture” (De Silva, 1998). It is crucial that we find the right balance between the two. De Silva is a regionalist architect who rejects the idea of using

traditional building materials, methods and ornament just for the sake of cultural continuity. She defends this position by saying, “as an architect I believe in and cannot subscribe to copying the architecture of an era that has long past. As an architect I believe in building to suit our living needs in a living way, utilizing the most suitable and modern means at our disposal, and on adopting these sound and fundamental principles of buildings of the past, which are as authentic today as before. It is from that, that a beautiful and satisfying modern architecture can result” (De Silva, 1998, 47).

Architectural regionalism has the ability to develop an architecture that will not completely abandon the architectural traditions that are meaningful and useful. The primary goal is to counter the concept of placeless-ness in order to produce a sustainable architecture that utilizes a combination of the best traditional regional methods and the most beneficial modern possibilities.

Universal Architecture

Due to advanced techniques, materials, transport and communication, universal architectural concepts have spread throughout the world. Many of these modern architectural forms do not reflect any regional architectural roots or traditions. It became a neutral form of architecture that ignored regional aspects and conditions.

The International Style is a globally influential architectural movement, which promoted a universal approach to architecture. The conflict between regional architecture and sustainable design is apparent in when considering International Style and the Modern Movement in architecture. This type of “Internationalism” has presented a new architecture that often bears no relationship to the architectural tradition of a region,

along with high levels of resource use and large environmental impacts. Figure 7. is an example of an International Style home. Despite the architectural merit of this home, it feels very detached from its natural setting with little to no integration with the site. Although this house is by no means wrong, I believe that through architectural regionalism people can create dwellings that have a more meaningful relationship with the natural setting and therefore establish or enhance this relationship within the residents as well.



(Figure 7. Villa Savoye, an example of International Style architecture. Source: bc.edu)



(Figure 8. International Style architecture. Source:tashula.tumblr.com)

The phenomenon of universalization, as Paul Ricoeur states, “while being an advancement of mankind, at the same time partly causes a subtle destruction not only of traditional cultures, which might not be an implacable wrong, but also of the creative nucleus of great cultures”(Ricoeur, 1965). One of the key characteristics of architectural regionalism is the way it attempts to revive and reinterpret local building traditions to achieve a synthesis with modern architectural forms. “It would be useful if we formed the habit of never using the word regional without mentally adding to it the idea of the universal—remembering that constant contact and interchange between the local scene and the wide world that lies beyond it” (Mumford, 1941). Lewis Mumford is an advocate for an architecture that embraces local traditions while simultaneously engaging with the global, universalizing world.

Despite the effects of the modern world, people, including myself, still admire unique forms of indigenous and vernacular traditions. In contemporary architecture the question arises about how to progress without completely disregarding the natural and cultural architectural history of a particular region. How can regional architecture benefit

from the possibilities of modern architectural design and technology while still utilizing and maintaining the characteristics that have made a region architecturally unique in the first place?

Sustainable Design

Today more than ever architects are employing sustainable design practices. In doing so many architects have retained regional characteristics while employing sustainable building practices. As seen in indigenous structures, sustainable building strategies are often inseparably linked with regional expression. Adobe style architecture inherently exudes a Southwestern aesthetic while simultaneously exhibiting elements of sustainable design.

Up until this point in the paper the ideas concerned with environmental issues have only been minimally mentioned. I am suggesting in this paper that there lies hope in a sustainable architecture that is derived from a regionally based perspective. A central theme here is the connection between architectural regionalism and sustainable design.

It is evident that unsustainable resource use and environmental degradation have forever been part of human history, but today these problems seem to be exacerbated. “The current scale and the types of human activity are producing impacts that are both dispersed and close to or exceeding global limits of ecological assimilation” (Rees, 1999). “The construction and operation of buildings account for an astounding 40 percent of the materials entering the world’s economy and one-third of the global energy consumption” (Worldwatch Institute, 1995). How structures are designed and built will have a

substantial impact on the ultimate ecological footprint of a region. “As houses consume lumber, energy and other resources, they excrete wastes. The average household now produces each year about 3500 pounds of garbage, 450,000 gallons of wastewater, and 25,000 pounds of CO₂...”(Barnett, Browing, 1995, p.4). In addition to the energy used to heat and cool a home or building once it is constructed, it is also important to consider the energy used to produce the buildings materials and to assemble them. Sustainable buildings seek to minimize these negative effects. When architectural regionalism automatically utilizes sustainable design there is immense potential to create unique, regional, sustainable architectural forms. “Sustainable architecture isn’t a prescription. It’s an approach, an attitude. It shouldn’t really even have a label, it should just be architecture”(Maxman, 1993, 11). There is no question that many of the ways in which we live unsustainably are directly tied to the design and construction of buildings.

Until recent times many architects were not truly aware of how environmentally destructive buildings could be. “Our power over the global environment has become enormous and practically instantaneous. A single human invention may be marketed and put into use around the world before we realize what harm it can do to the environment. We are being warned that within a few decades industrial culture may, through our simple inadvertence, be able to warp the biosphere in ways that will derange age-old ecological harmonies for millennia to come” (Rozak, 1992, 96). From realizations like this the process of sustainable design and planning has developed and ‘green building’ has been brought to the forefront of architectural decisions. “The weight of evidence traces the roots of current environmental problems to the fact that industrialized societies operate within a social and economic system that implicitly considers human activity dominant

over, and essentially independent of, the ecosystems” (Cole, Lorch, 2003, 1).

Understanding the environment helps architects understand how buildings can function as organic systems, working in harmony with biological cycles and processes of nature.

“The parts of a building must create a whole, and this whole must be responsive to environmental conditions. A building affects the environment, just as the environment affects the building” (Dodge, 1981, 340).

Architectural regionalism is concerned with an architecture that sustains unique quality of a place. The central question then becomes how does an architect sustain the regional quality of a place while attempting to implement green building and sustainable design practices. There is a big challenge today for architects to respond to the ever-present environmental problems of our planet without disregarding the regional context.

“In architecture, much knowledge required for professional licensure is placeless and highly standardized” (Canizaro, 2005, 25). The standardization of architectural knowledge and practice has become problematic. To assume that sustainable design principles can be applied in the same way in any location is a misconception. The promise of architectural regionalism is that it understands the problems associated with the standardization of architectural knowledge, and can reinterpret that knowledge in a relation to different regional contexts.

Case Study: Santa Fe Emerald Home

Santa Fe is a great example of a city leading the way in promoting environmental planning and sustainable architecture. In 2009 Santa Fe became one of the first cities in

the United States to adopt green building codes which require all new buildings to be built by a set of green building standards including resource efficiency, energy efficiency, water efficiency, project implementation plan and lot development, and operation, maintenance, and sustainable practices. There are many different levels of green building. Santa Fe's new code, for instance, starts with light green at its basic level and goes to "emerald" at its greenest"(Kim Shanahan, 2010). I was lucky enough to have the chance to visit the first "emerald" rated home in the Santa Fe area. This home not only has a net-zero carbon footprint but also displays a beautiful regional style. This home has received the highest rating in Santa Fe's green building codes. This emerald home uses both modern and traditional sustainable building practices. The interior walls are constructed out of compressed earth block from locally harvested soil. As you can see in Figures 9 and 10, this home makes use of modern technology through the use of photovoltaic solar power, along with the age-old construction method of rammed earth.



(Figure 9. The Emerald Home in Santa Fe, and example of regional style green building. Source: photo taken by Steve Reighley, December, 2011. Figure 10. Close-up view of

local mud brick building technique, from the Emerald home. Source: taken by Steve Reighley, December, 2011.)

The type of architectural regionalism concerned here is one related to ecological sustainability and how the principles are fundamentally linked to human settlement. Architecture is inextricably linked to the ever-present and ever-changing environmental and ecological context. I firmly believe that a universal environmental approach to architecture will not work, and environmental architecture must be shaped by its regional context. "By working together, architects, landscape architects and urban planners can fulfill an ecological role, namely to protect and preserve ecosystems, natural cycles, loops and chains and the symbiosis between organisms and their environment"(Kelbaugh, 2002). Architectural regionalism promotes a better way of dealing with the challenges of creating sustainable places to live. Architectural regionalism has much to tell us about creating an architecture that has a sustainable relationship with the regional and environmental context, and promotes ways to plan and function within them.

Conclusion

Although no real answers have been presented here, this critical essay on architectural regionalism presents the basic ideas about architectural regionalism as a way to get people thinking in such a way. It is a challenge to define architectural regionalism in terms of a set of concrete principles but I believe that solutions will arise from architectural regionalism through a better understanding of place and region.

The built environment will always have some degree of impact on local ecosystems, but this impact can certainly be managed and decreased through wise

architectural planning. Throughout the world it will be essential for people to be highly aware of the context in which they live. It will be essential to take a critical look at architecture and patterns of development in order to improve the places in which we live, both culturally and environmentally. This paper recognizes the many conflicts that arise when attempting to understand such a multifaceted discourse. This thesis is not a rejection of globalism, or modernism, but instead uses them as a means for discussing the possibilities of architectural regionalism. Architectural regionalism “must foster connectedness to place and be a response to the needs of local life, not in spite of global concerns and possibilities, but in order to better take advantage of them” (Canizaro, 2007, 12). Understanding architecture in the context of the local and the global, the traditional and the modern much better serve the possibilities of architectural regionalism.

Architectural regionalism is a way to revitalize aspects of architecture that have been lost or degraded in the face of globalization and modernization. “It should open up the possibility of shared purpose, in which the concerns of here are understood as linked to there: ecologically, economically, and socially” (Canizaro, 2007, 12).

Through the commitment to architectural regionalism lies the hope in creating meaningful, sustainable regional architecture. Architects and planners play an important role in putting new paradigms into practice in order to establish a sustainable regional architecture. The indigenous architecture of the Southwest has influenced architecture in the region throughout history. The essence of these structures has served the test of time and has become a source of inspiration for anyone who values a logical, regional architecture. Modern architects can learn from these past architectural forms and in turn create a modern regional architecture that exhibits an equally inspiring character.

Works Cited

Beatley, Timothy, and Kristy Manning. *The Ecology of Place: Planning for Environment, Economy and Community*. Washington, DC: Island, 1997. Print.

Bechhoefer, William. "Regional Identity, Tradition, and Modernity." *The Art Book* 7. Vol. 2. 2004. 4. Print.

Belluschi, Pietro. "The Meaning of Regionalism in Architecture." *Architectural Record* (1955): 131-39. Print.

Berg, Peter, and Raymond Dasmann. "Reinhabiting California." *Ecologist* 7.10 (1977): 399-401. Print.

Brown, Lester Russell. *State of the World, 1995: A Worldwatch Institute Report on Progress toward a Sustainable Society*. New York: W.W. Norton, 1995. Print.

Canizaro, Vincent B. *Architectural Regionalism: Collected Writings on Place, Identity, Modernity, and Tradition*. New York: Princeton Architectural, 2007. Print.

Cassidy, Timothy J. "Becoming Regional over Time: Toward a Reflexive Regionalism." (2000): 1-9.

Cole, Raymond, and Richard Lorch. *Buildings, Culture and Environment: Informing Local and Global Practices*. Oxford, UK: Blackwell Pub., 2003. Print.

Cresswell, Tim. *Place: A Short Introduction*. Malden, MA: Blackwell Pub., 2004. Print.

De, Silva Minnette. *The Life & Work of an Asian Woman Architect*. Colombo: Smart Dodge, Jim. "Living by Life: Some Bioregional Theory and Practice." *CoEvolution Quarterly* (1981): 6-12. Print.

Frankfurter, Felix. *Regionalism in America* (1965): Xvi. Print.

Harris, Harwell H. "Regionalism." *North Carolina Architect* (1978): 10-11. Print.

"HB Architecture, Architects, Designers, Residential, Commercial, Industrial, Design, Whangarei, New Zealand." *HB Architecture, Architects, Designers, Residential, Commercial, Industrial, Design, Whangarei, New Zealand*. Web. 03 May 2012. <<http://www.hbarchitecture.co.nz>>.

Kelbaugh, Doug. *Repairing the American Metropolis: Common Place Revisited*. Seattle: University of Washington, 2002. Print.

Lopez, Barnett Dianna., and William D. Browning. *A Primer on Sustainable Building*. Snowmass, CO: Institute, 1995. Print.

Ludlow, R. "Green Architecture," Environmental Studies Senior Capstone, St. Olaf College, Northfield, MN. Cited within *Sustainable Design: The Science of Sustainability and Green Engineering*.

Maxman, Susan. "Shaking the Rafters." *Earthwatch* (1993): 11. Print.

Meem, John G. "Development of Spanish Pueblo Architecture in the Southwest." *Mountain States Architecture* (1966): 19-21. Print.

Miller, David. *Toward a New Regionalism: Environmental Architecture in the Pacific Northwest*. Seattle: University of Washington, 2005. Print.

Mumford, Lewis. "Excerpts from the South in Architecture." *The South in Architecture*. New York: Harcourt, Brace, 1941. 21-32. Print.

Mumford, Lewis. "The Theory and Practice of Regionalism." *Sociological Review* 20 (1928): 140. Print.

Newcomb, Rexford. "Regionalism in American Architecture." *Regionalism in America* (1965): 273-95. Print.

Ozkan, Suha. "Regionalism within Modernism." *Regionalism in Architecture* (1985): 8-15. Print.

Pearson, David. *Earth to Spirit: In Search of Natural Architecture*. London: Gaia, 1994. Print.

Ricoeur, Paul. "Universal Civilization and National Cultures." *History and Truth*. Evanston: Northwestern UP, 1965. 271-84. Print.

Sanford, Trent E. *The Architecture of the Southwest*. New York: Norton, 1950. Print.

Tuan, Yi-fu. *Space and Place: The Perspective of Experience*. Minneapolis: University of Minnesota, 1977. Print.

Vallero, Daniel A., and Chris Brasier. *Sustainable Design: The Science of Sustainability and Green Engineering*. Hoboken, NJ: John Wiley, 2008. Print.

Works Consulted

Day, Christopher. *Spirit and Place: Healing Our Environment*. Oxford: Architectural, 2001. Print.

Hagan, Susannah. *Taking Shape: A New Contract between Architecture and Nature*. Oxford: Architectural, 2001. Print.

Jones, David Lloyd. *Architecture and the Environment: Bioclimatic Building Design*. Woodstock, NY: Overlook, 1998. Print.

Lusk, Paul, and Alf Simon. *Building to Endure: Design Lessons of Arid Lands*. Albuquerque: University of New Mexico, 2009. Print.

Nesbitt, Kate. *Theorizing a New Agenda for Architecture: An Anthology of Architectural Theory, 1965-1995*. New York: Princeton Architectural, 1996. Print.

Rael, Ronald. *Earth Architecture*. New York, NY: Princeton Architectural, 2009. Print.

Seamon, David. *Dwelling, Seeing, and Designing: Toward a Phenomenological Ecology*. Albany: State University of New York, 1993. Print.

Steele, James. *Ecological Architecture: A Critical History*. London: Thames & Hudson, 2005. Print.

Williamson, T. J., Antony Radford, and Helen Bennetts. *Understanding Sustainable Architecture*. New York: Spon, 2003. Print.