

Critical Regionalism, Biophilia Design, and Regenerative Design  
in Experiential Hotels

by

Rawan Mousa Albughdadi

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Graduate Supervisory Committee:

Jose Bernardi, Chair  
Sonja Bochart  
Rebekka Goodman

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## ABSTRACT

With its goals, methods, and standards, sustainability has gained a lot of traction. Nevertheless, there is still room for improvement in terms of sustainability. Professionals and academics attempted to meet these demands by developing and implementing new substantial strategies for accelerating the transition to a more sustainable future. Culture is a crucial factor in evolution because it is the primary means by which our forefathers adapted to their surroundings. Resistance movements such as critical regionalism theory, resisting placelessness, and whimsical individualism arose as a result of the uncritical acceptance of the International Movement's principles and later post-modern languages. Considering all these, critical regionalism, biophilic design, regenerative design, and tourism are all investigated in this thesis. The goal is to investigate the relationship between these design approaches: critical regionalism, biophilic design, and regenerative design, and experiential hotels. A comprehensive literature review and the optimization of a collective case study are part of the methodology.

By and large, critical regionalism creates autonomy and elevates its construction to an art form by providing functionally acceptable forms that are adapted to nature and the region. By translating the site's environmental characteristics within the hotel, biophilic design emulates nature through visual signs and a dramatic sense of place. By creating a design system, regenerative design aims to preserve hotel resources while also reducing carbon footprint and CO<sub>2</sub> emissions. This study demonstrates the positive

impact of combining sustainability methods and has provided individuals with a rich experience while minimizing environmental impact. Finally, based on the findings of the data and combining the three design approaches of critical regionalism, biophilic design, and regenerative design, this thesis proposes guidelines for designing experiential hotels.

KEYWORDS: Sustainability - Critical regionalism design - Biophilic design - Regenerative Design – Tourism – Experiential hotel

## DEDICATION

This dissertation is dedicated to my mother, who tells me every day how proud she is of me and how much she believes in my abilities; to my father, who supports me; and to my loving husband, who insists that I finish this journey on a high note.

I would also like to express my gratitude to my beloved family and friends for their unconditional support all through this journey.

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## CHAPTER 1

### INTRODUCTION

#### **1.1 Introduction**

In the context of social experience, tourism is in high demand. Social experience is defined as the result of an individual's mental and functional activities that has been used in the composition of knowledge about social facts, experiences of performing actions, and acts of emotional relationships. According to Rodzi (2013), one of the outstanding universal values that contributes to increased tourism demand is cultural tradition. The growth of tourism has been aided by universal civilization, or the contributions of nations and peoples from various traditions in accepting common values such as freedom, tolerance, and understanding. Architectural and design professionals are responsible for highlighting a region's environmental and cultural aspects, as well as the ethnic identity of a country's character. By opposing a universal civilization design, it may be possible to contribute to the value of multiculturalism as well as the environment, climate, and historical sites, all of which are important factors in developing a solid tourism infrastructure.

The natural environment of a region has a big influence on social identity and human behavior; one of these social behaviors or identities can be seen in a building's design. In ancient times, primitive humans worked to transform nature into a predator-free zone, so they settled in caves and turned them into what we now call homes. The more people progressed, the more advanced their architectural designs became. Designers and handcrafters worked to bring nature and housing together by transforming natural

materials into high-quality design projects. For example, in ancient Arabia, from the 8th century BCE to the 5th century CE, a tribe or group of tribes known as Thamud (see Figure 1.1) shaped their buildings to suit their climate, environment, and topography. The Pharaonic, Greek, and Roman civilizations all did the same thing. Unfortunately, as the industrial era progressed, designers began to adopt the idea of creating a design unit that could be built and shaped in a variety of environments and circumstances, resulting in the emergence of a uniform and similar perspective of concrete buildings that rely on changing the entire site environment and topography to make it easier to begin construction.

With the rise of the universal civilization movement and social media platforms, a resistance movement against changing the natural environment's appearance and prohibiting uniqueness became necessary. When discussing social identity, it is necessary to mention one of the buildings that goes to great lengths to communicate identity: hospitality buildings. As a result, caring for hospitality buildings, particularly those that provide cultural and environmental experiments for a specific region, can aid in the restoration of a region's societal identity and culture. Knowing that identifying a region is difficult due to the many interlacing factors; a tribe is defined by the distribution of racial-ethnic groups, geography, climatic features, and political and economic borders. Each factor may result in a different region being drawn than the others. As a matter of fact, citing deterministic arguments to identify a region would be foolish, and serious studies must be undertaken to investigate these circumstances and identify regions in

order to assist the tourism industry by developing experiential hotels based on their regions and the environment.



*Figure 1. 1: Thamud Houses(Hegra Archaeological Site (al-Hijr / Madā' in Şāliḥ) - UNESCO World Heritage Centre, n.d.)*

## **1.2 Justification**

This research is significant on a number of levels. To begin, it considers how to preserve the culture and environment of the site, as well as how to preserve human and natural resources and ensure the continuity of a country's natural resources. Secondly, this research establishes criteria for determining the effectiveness of the three approaches mentioned above in terms of hospitality design. It also investigates how to apply the characteristics of design approaches in the hospitality industry, particularly in experiential hotels. Finally, it includes suggestions for improving the design principles of experiential hotels.

### **1.3 Scope and Limitations**

This study examines the role of critical regionalism, biophilic design, and regenerative design in the establishment and development of experiential hotels, taking into account their economic importance. Six hotels from around the world were chosen to study their design approaches and see how effective they were at providing tourists with an experiment. Nonetheless, the study was unable to assess tourists' satisfaction with the provided experience due to limited geographic access to the hotels and time constraints.

### **1.4 Research Questions**

The purpose of this study is to look into two major questions, both of which are sequential in nature:

*1. What role do critical regionalism, biophilic design, and regenerative design play in the development of an experiential hotel and the advancement of sustainability goals?*

Rationale: The purpose of this study is to look at the relationship between three different design approaches and experiential hotels, as well as how they would express their design principles and how to define the criteria that determine their effectiveness.

*2. What design principles contribute to making hotels more experiential?*

Rationale: Since this research is concerned with suggesting some changes to experiential hotels' design, it is necessary to gain an understanding of design principles in order to provide an environmental and cultural experience to tourists.

## 1.5 Operationalization Terms:

### ➤ **Sustainability:**

It "meets the needs of the present without jeopardizing future generations' ability to meet their own needs," according to UNESCO.

### ➤ **Critical Regionalism:**

"It is an architectural approach that seeks to counter the International Style's placelessness and lack of identity while rejecting the whimsical individualism and ornamentation of Postmodern architecture."

### ➤ **Biophilic Design:**

"Biophilic design is a design philosophy that encourages the use of natural systems and processes in the design of the built environment." (Kellert, 2008)

### ➤ **Regenerative Design:**

It is a process-oriented, whole-systems design approach. The process of restoring, renewing, or revitalizing their sources of energy and materials is referred to as regenerative. "A system of technologies and strategies that generates designs to regenerate rather than deplete underlying life support systems and resources within socio-ecological wholes, based on an understanding of the inner workings of eco-systems." (Mang & Reed, 2013)

### ➤ **Tourism:**

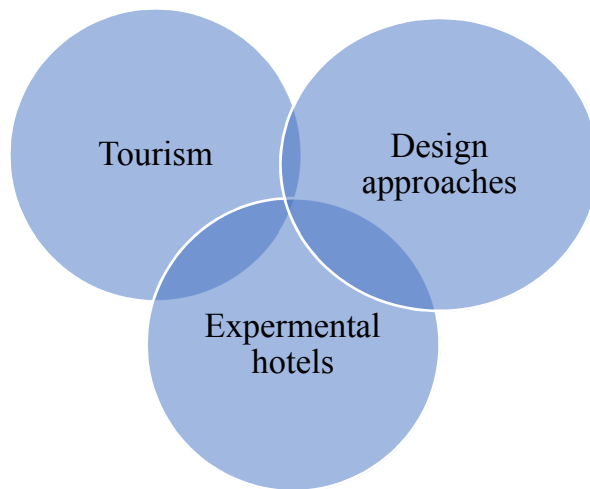
"It is the theory and practice of touring, as well as the business of attracting, accommodating, and entertaining tourists, including the business of operating tours."



➤ **Culture Tourism**

Cultural tourism is defined as "movements of persons for essentially cultural motivations such as study tours, performing arts and cultural tours, travel to festivals and other cultural events, visits to sites and monuments, travel to study nature, folklore or art, and pilgrimages" by the United Nations World Tourism Organization.

**1.6 Research Variables**



As shown in Figure 1.2, this section highlights the research framework and explains the study variables: experiential hotels, the three design approaches, and tourism. The relationship between these three variables is determined by the answers to the paper's central questions. The three design approaches and tourism are the independent variables in this study, while experiential hotels are the dependent variable.

*Figure 1. 2: Reasearh Vareibles*

## CHAPTER 2

### LITERATURE REVIEW

#### **2.1 Introduction**

Sustainable design is a pressing need that has turned into a necessity as a result of harmful human activities that contribute to global warming, climate change, and the scarcity of natural resources. Sustainability has always attempted to limit these activities and address their consequences by enacting a slew of regulations across the board. However, sustainability in its previous form was insufficient, as there are also concerns about the preservation of natural resources and the protection of Mother Earth from future harm. Many design approaches attempted to resolve or consider some of these issues. The goal of this study is to look at three different design approaches for preserving a region's environment and culture and incorporating them into experiential hotel designs.

The first subject of this study is critical regionalism, which is concerned with studying regional design elements and combining them with manifestations of civilization without one overpowering the other, and without excessive ornamentation or cultural identity deprivation. As a second developed idea from sustainability, this research is also concerned with biophilic design. Because it embraces and integrates nature with interior design, biophilic design can be considered a solution to today's environmental issues. Biophilic design has been shown to have a number of positive effects on humans. It has been shown to have an impact on productivity, concentration, stress reduction, brain relaxation, and emotions (Ryan et al., 2014). Sustainability is

uninterested in replenishing resources because it is solely concerned with reducing resource consumption. As a result, regenerative design was chosen as the third design approach to be investigated; it involves planning ahead when sustainable design uses the fewest human resources possible. These three approaches are concerned with culture and the environment. It does, however, require a system to assess the quality of its building design applications. Finally, tourism is taken into account in this study.

## 2.2 Conceptual Framework Descriptors

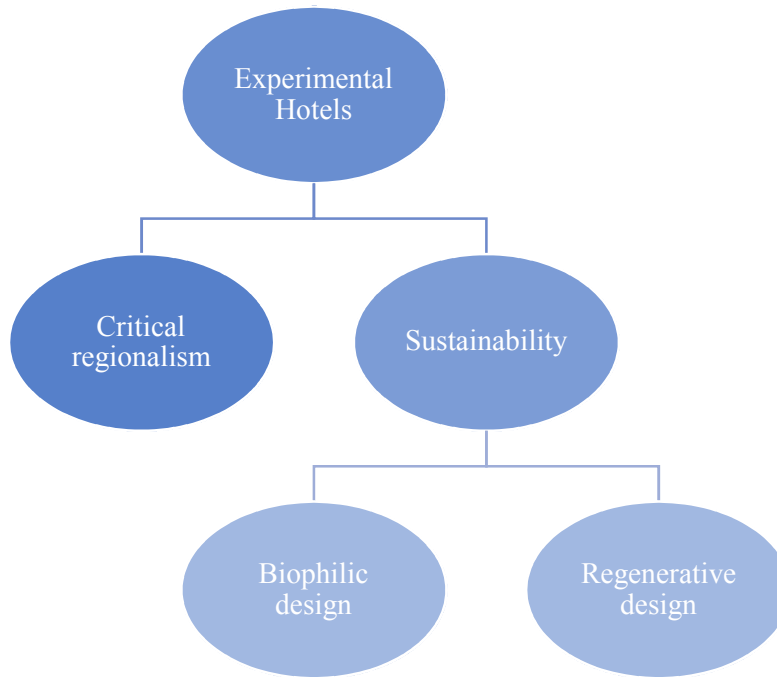


Figure 2. 1: Conceptual Framework

## 2.3 Critical Regionalism

A region, according to National Geographic, is a land area with similar characteristics. Climate and landscape are examples of natural features. Language, religions, political systems, foods, customs, and participation in trading networks are examples of artificial cultural regions. It's critical to determine the boundaries of these

regions, which could range from a few miles to millions of square miles, so that designers and architects can create structures that best serve their communities. Otherwise, master planning or policy development for urban regeneration or development in the built environment can be referred to as regions.

### **2.3.1 The Beginning of Regional Architecture**

Critical regionalism is a developed approach based on ancient architectural methods that derive from singular and local ideals, and it can be applied to a variety of social and cultural contexts. However, it is critical to understand the background of critical regionalism by studying regional architecture in times of crisis and change, such as our own, and in light of the globalization movement. To better comprehend the history of regionalism, it is necessary to divide it into sections based on the period during which it existed. It was initially classified as a question about Vitruvius' book *De Architectura*. Vitruvius lived at the beginning of the first century BCE, during the reign of Augustus, the Roman Empire's first Emperor. Vitruvius discussed the various types of Graeco-Roman architecture as well as the political ramifications of the world's division into fundamentally different regions. According to Vitruvius, regionalism does not belong to all Graeco-Roman types; it was inferior to Graeco-Roman structures. The architecture of regionalism was designed for high-ranking political, economic, social, and cultural figures. It has a stronger resemblance to today's classics.

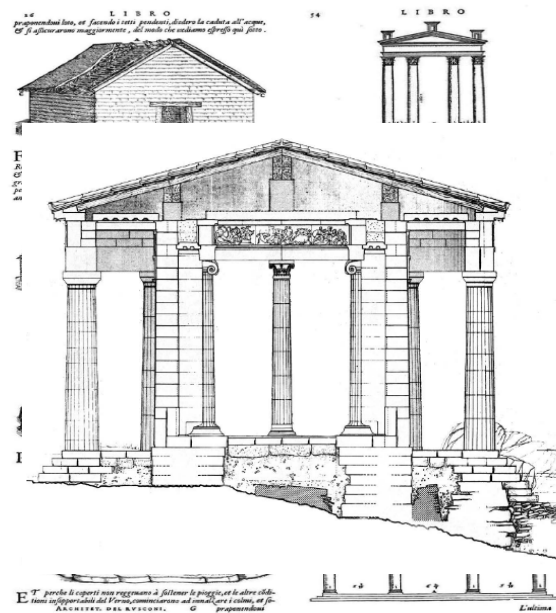
Vitruvius adopted Lucretius' materialist philosophy, which considers the Nature of Things in almost all design aspects, such as materials, cities, machines, and fortifications related to philosophy and natural science, relying on Lucretius' theory that

stated that living organism diversity was the result of natural environmental causes, or in other words, organisms adapted to survive. Vitruvius claimed that architectural types adapted to their regional environment as a result of this materialist argument, laying the groundwork for an environmentally deterministic approach to architecture. Vitruvius made a comparison between regional and Graeco-Roman architecture. The difference between regional architectures, in his opinion, was 'ordained by Nature,' or, to put it another way, the physical environment of the regions to which the buildings belonged. It explained their diversity as well as the structure of their structures. Climate and physical conditions influenced buildings, just as climate shaped human beings, as Vitruvius' writings show. He adopted the belief that climate affects people as much as it affects buildings, such as the harsh climate, because of his interest in politics concerned with the political implications. The rainy northern region's buildings are designed with a pitched

roof counter. The hot climate to the north, on the other hand, aided the construction of flat roofs.

*Figure 2.2: The Difference Between Regional Architectures in Graeco-Roman(Lefaivre & Tzonis, 2012)*

Despite the greatness of the Roman empire's architecture, it can be said that it was constructed with the assistance of other nations and their craftsmen. Between 2000 and 1100 BCE, the so-called Minoans and Mycenaeans lived in Southern Greece. Minoans and Mycenaeans settled primarily near the sea, and they came from a region where merchants were moving across the ocean, bringing a high nutritional value and people with valuable knowledge. This navigation aided in the formation of the Greek identity, as carpenters and builders were described as men from various regions who traveled "all over the boundless earth," speaking Mycenaean, Aeolic, Ionic, and Attic languages.



Craftsmen, according to Aristotle, are inherently landless immigrants rather than citizens.

There is strong evidence that the stones used in the construction of Greek quarrying walls were quarried using Egyptian and Near Eastern techniques. Wood technology, on the other hand, may have originated in the Canaanite region. With these long-distance sea routes, travelers had a significant impact on Roman and Greek architecture throughout history.

*Figure 2.3: The Impact of Globalization on The Greek Quarry Architecture(Lefaivre &Tzonis, 2012)*

### **2.3.2 Critical Regionalism Approach**

The term critical regionalism first appeared in the design field in 1982, when architectural theorists Alexander Tzonis and Liane Lefaivre published an article in *Architecture in Greece*. The essay titled "The Grid and the Pathway" discusses the appearance of two major architectural patterns. One of them is critical regionalism, which is defined as an approach that seeks to resist the international style's placelessness and lack of identity while also rejecting Postmodern architecture's whimsical individualism and ornamentation. During the last two centuries, it ruled almost all countries. Critical regionalism was viewed as a dualism tendency by some critics and historians. On the one hand, it promotes individual identity and preserves local architecture, but it is also a symbol of oppression. Critical regionalism has gained both supporters and detractors as a result of this. It may occur to some that the concept of repressive absolutist regimes is the only opponent of critical regionalism. Nonetheless, the Welfare State was a custodial force in the modernist movement. Since the spread of the Welfare State in industrialized countries, first-world countries experienced economic, social, political, and cultural

modernization in the early twentieth century. To reflect its strength and industry selection as this power source, Welfare State architecture was classified under abstract universal norms.

During the 1950s and 1960s, multinational corporations and planning bureaucracies peddled the so-called universal civilization, which developed and disseminated the banal box forms for housing and offices. To erase the local identity, they rely on concrete frames and air conditioners. 'Understandably, such buildings have been targeted as instruments of neo-colonialism and urban destruction: the polar opposite of traditional values of any kind,' writes William J.R. Curtis in his article. Critical regionalism, it could be argued, takes on urban fabric, climate, and local light in the same way it took on topography to make the most of the universal technique. Despite the importance of topography and light, tectonics, not scenography, is the most important factor in obtaining regional architecture. The majority of contemporary writers and architects are preoccupied with poetic construction, ignoring the sense and art of construction. The design must assist in the creation of a functionally acceptable form that is adapted to nature, as well as how this harmonic function creates autonomy. In critical regionalism, the method of construction is more important than the way it is decorated because it is the method of construction that gives the building its autonomy.

Aside from the aforementioned factors, the place-tactile form's resilience, or "tactile experience," must be mentioned. To create a resistant movement against universal technology, it is necessary to read the surrounding nature without relying solely on sight.

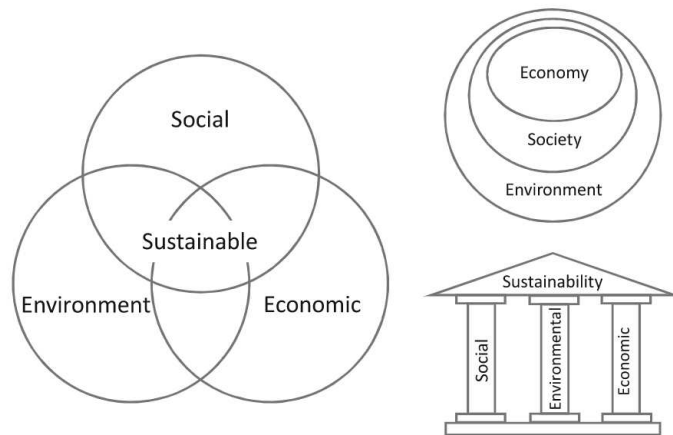


As a result, designers must be reminded that the tactile is an important measurement in constructing form perception. The intensity of light, darkness, heat, cold, humidity, the aroma of material, and the echoing resonance of our footfall are all complementary sensory perceptions that the human body can recognize when thinking. The Western tendency emphasizes perspective while ignoring the senses of smell, hearing, and taste, resulting in a disconnection from a more direct experience of the environment. Thinking about all of these new materials created in laboratories and made of plastic, the lack of a tactile dimension, and how these materials are robbing us of the value of our experiences, regionalism must have different ideas in different cultures, such as working dramatically in countries with significant architectural heritages but little visible tradition.

#### **2.4 Sustainability**

Sustainability has grown in popularity as it encompasses a wide range of fields and approaches. Sustainability has become "the keystone of a global dialogue about human future," according to sustainability scholar David Orr (2020). This discussion has aided in determining how a paradigm or "worldview" should be used to guide future actions in the present. Furthermore, some academics are concerned about social equity and economic growth. The United Nations discovered that many countries were still suffering from extreme poverty despite years of rising living standards due to industrialization. They discovered that economic development came at the expense of environmental health and social equity, and that it did not lead to long-term prosperity. The United Nations' "Brundtland Commission" issued its final report in 1987, defining sustainable development as "development that meets current needs without jeopardizing future

generations' ability to meet their own needs" (Elder, 1990). According to the commission, the world needed to find a way to balance ecology and prosperity. As a result, because it considers ecological, social, and economic dimensions, sustainability must be viewed holistically in order to achieve long-term prosperity. The three pillars of sustainability are known as the environment, economy, and society. This framework is most commonly used in economic development when human needs and environmental constraints are taken into account.



*Figure 2.4: The Three Pillars of Sustainability(Purvis et al., n.d.)*

As societies face change, sustainability is about finding solutions to problems. Reading more about history can help you gain a better understanding of how modern cities work and how to develop urban sustainability. Furthermore, history can help us understand how people around the world collaborated in ever-larger settlements, how they solved problems, and even how they sowed the seeds of their own demise. The many benefits of reading histories, such as researching how decisions and actions have

changed over time, aid in the discovery of more study cases that introduce several fundamental issues today or provide an introduction to today's technology.

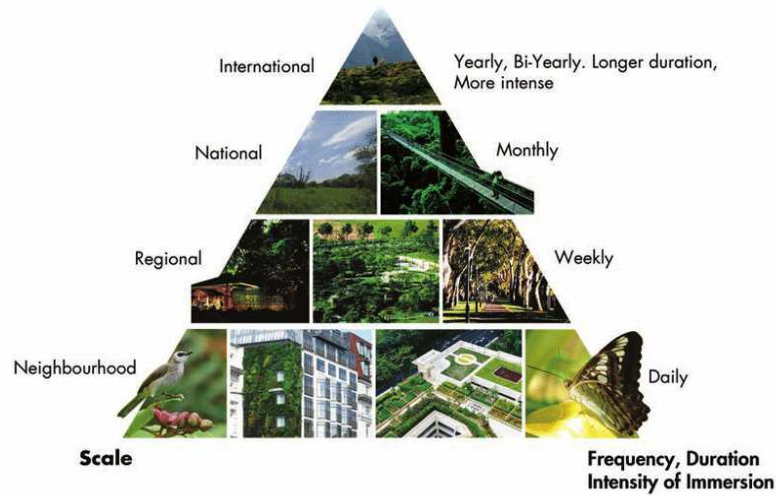
## **2.5 Biophilic Design**

Biophilia, a movement that embraces and integrates nature, is one of the sustainable movements that can be considered a solution for today's environmental issues. This movement arose from a long tradition of contemplation of nature's critical role in cities and sites. The central tenet of biophilia is that humans have an innate connection to nature and a "love of nature" for living systems. As a result, biophilia emphasizes the use of plants, daylight, fresh air, natural materials, and natural views. In his seminal 1984 book *Biophilia*, Harvard Professor E.O. Wilson helped solidify the concept of biophilia. Dr. Stephen R. Kellert, on the other hand, has done more to popularize the concept than anyone else. He organized multi-day meetings with experts to investigate the new concept, which some believe is timely. The most important topic in the nature by design book arose as a result of these meetings. Biophilic design is a term that refers to the theory, science, and practice of bringing buildings to life. Kellert developed a biophilic design typology that is widely cited and applied.

Some environmental scholars disagree with this concept, claiming that languages and labels are insufficient to cover the need for nature's attention. Green infrastructure, ecological infrastructure, and green cities are all approaches that prioritize nature, but they fall short of biophilia's holistic approach. Humankind's deep connection with nature must be embraced as part of biophilia care, as must the belief that nature is not optional but essential to our humanity. The concept of biophilia encompasses more than just

construction; it also encompasses the creation of cities and integrated systems. According to a study conducted in Phoenix, Arizona, the area's weather will return to that of Baghdad. For more than 130 days, the temperature will be above 100 degrees Fahrenheit. So, what can a city like Phoenix do in this situation? Biophilia is a simple solution for reducing heat increase in Phoenix (Pierre & Gossop, 2016). It is critical to understand the primary characteristics or elements that cause cities to become biophilic. Each city has its own set of opportunities and possibilities, but there are a few things that all cities have in common. Design and planning principles, as well as promoting deep connections or reconnecting to nature and supporting healthier communities, are among them. This study will concentrate on designing and planning principles in order to discover the best way to connect sustainability in biophilic design and critical regionalism in experiential hotels. It is critical for designers and architects to establish a link between the outside and the inside; creating more natural interior spaces can significantly improve the quality of work and living environments, as well as provide important health benefits to residents and workers. Indeed, it will have an impact on the quality of the neighborhoods around them, as well as the users of the space.

It is difficult to discuss biophilia and sustainability without bringing up the nature pyramid, which has been used to discuss the various types of nature and the types of nature that a person would encounter. The food pyramid and the nature pyramid are similar. It implies that local nature should be at the top of the pyramid, with distant nature at the bottom. It also can't overlook the other half of the pyramid. Neighborhood, regional, national, and international, are the four sections of this pyramid. Nature's forms,



on the other hand, can be understood in a variety of ways. To do so, there are a variety of new typologies to consider. These patterns were inspired by the pattern language (Alexander et al.,1977). This pattern provides a new perspective on a community's unique spatial-physical expressions.

Figure2.5: Nature Pyramid(*The Nature Pyramid — Biophilic Cities*, n.d.)

Following postmodernity, biophilic design serves as a link between people and their sensory environment, reestablishing a millennia-old relationship. Buildings have been usurped by abstraction and increased physical separation from nature in recent decades. People are interacting with nature less frequently these days, owing to a lack of knowledge about the health benefits of doing so. As a result, interaction with nature has a variety of positive effects on physical, psychological, and spiritual well-being, despite the fact that decreased exposure to nature is a growing concern. Because no single instrument offered a wide variety of nature-integration strategies, these concerns created the need for a guide to assist interior designers in incorporating biophilic design into the built

environment. The Biophilic Design Matrix (BDM) provided a simple way to incorporate biophilia into interior design.

The importance of valuing nature's active and even passive viewing benefits for human health and well-being cannot be overstated. In an underground environment, Kim et al. (2018) discuss the various effects of indoor plants and artificial windows. The best way to improve human health and well-being is to interact directly with nature, but indirect interaction can also be beneficial. The impact of being exposed to artwork or murals with complex fractal patterns is similar to being exposed to nature. It promotes mental and physical well-being by allowing the mind to shift from directed attention to fascination. This type of natural stimulation, also known as neurological nourishment, aids in the processing of complex information by our brains. Humans, on the other hand, have a negative reaction to neurologically non-nourishing spaces that have uniformed and chaotic areas, causing distress and anxiety. According to Alexander (2001-2002), the built environment must provide organized complexity while balancing extreme uniformity and extreme complexity.

Biophilia's benefits are not limited to human health and well-being; they extend far beyond that. It also includes financial advantages. As a result, the acceptance of biophilia in building design demonstrates the financial benefits of nature. "Incorporating nature into the built environment is not just a luxury, but a sound economic investment in health and productivity, based on well-researched neurological and physiological evidence," Browning et al. (2012, p. 3) argued. Other benefits of biophilic design can be extracted through their writing, such as increased healing rates, learning rates,

productivity levels, property values, reduced absenteeism, medical costs, stress, and even prison costs. As the importance of nature for human and financial health becomes more widely recognized, environmental appreciation and protection become increasingly important (Kellert, 2008).

### **2.5.1 Biophilic Design Creating and Developing Tools**

Kellert, a professor at Yale's School of Forestry and Environmental Studies, proposed a list of 72 biophilia characteristics. He gave them names to help designers and other building stakeholders better integrate landscapes and structures (Kellert, 2008). These characteristics were divided into six groups. This comprehensive list of landscape and architectural biophilic design attributes is based on the work of many authors and researchers. McGee and Marshall Baker (2015) developed the Biophilic Design Matrix (BDM) based on Kellert's attributes to begin operationalizing biophilic design for interior design applications. They looked at a scoring system for indicating the different biophilic design features in pediatric hospital playrooms. Kellert's list of 72 biophilic design attributes appeared to be appropriate for landscape and architecture applications but not for interior design. As a result, they attempted to create a new list that would be compatible with both interior and exterior design. The Terrapin Bright Green list of 14 Patterns of Biophilic Design, based on a literature review, is the most widely known alternative tool to Kellert's attributes with a focus on familiar patterns, nature–health relationships, and nature design relationships (Ryan, Browning, Clancy, Andrews, & Kallianpurkar, 2014). However, while this new list may limit the creative application of Kellert's 72 attributes, both contributed to the development of BDM. Environmental

Features, Nature Shapes and Forms, Natural Patterns and Processes, Light and Space, Place-Based Relationships, and Human-Nature Relationships are the six elements of BDM.

## **2.6 Regenerative Design**

Permaculture principles have spawned the concept of regenerative design. Regenerative design is about thinking further ahead; it offers an advanced and evolved approach to sustainability. Sustainable design uses the least amount of human resources, whereas sustainable design uses the least amount of human resources. To reverse the damage and ensure a positive impact on the environment, architects must design with the future in mind at every step of the way in regenerative design. In other words, designs must contribute to the restoration, renewal, or revitalization of energy and material sources. Regenerative design can be defined as the process of designing systems or the process of taking a holistic approach to design. Designers with a regenerative mindset apply systems thinking to human and ecological systems, as well as permaculture design principles and community development processes. These thinking systems build resilient and equitable systems that balance the needs of the community with the safety of nature. Landscape architect Ian McHarg published *Design with Nature* in 1969, which is a technology for ecological land-use planning based on understanding natural systems. It has become a standard textbook for those interested in an ecological approach to urban landscape design. Furthermore, the basic concepts in the book were later developed into Geographic Information Systems (GIS), which has become a critical tool for ecological development.



Permaculture was coined by Bill Mollison and his student, David Holmgren, as a contraction of permanent agriculture or permanent culture (Holmgren & Mollison, 1978). In 1978, an Australian professor and his student founded the field of permaculture as an ecological design system to promote human analogies and food productions based on natural ecological communities' relationships and processes. Permaculture has aided in the provision of several human needs through "man-made eco-systems," reducing reliance on environmentally destructive industrial practices. Permaculture was the first ecological design system to use the regenerative effect as a new metric for measuring the ecological performance of the built environment. The regenerative effect seeks to generate a surplus or overabundance of energy and resources that can be re-invested in the development of natural and human living systems.

The book *Design with Nature* laid the groundwork for his later regenerative design work.

It contains the following items:

- 1- Shaping eco-systems, like shaping buildings, necessitates the application of a number of principles derived from solid concepts of underlying order vital systems that collect data from various pieces that are connected by a relationship.
- 2- Eco-system design, "these underlying concepts of the order are drawn from ecology," and in order to draw these eco-system design principles, the designer must first understand and visualize the eco-system he or she is attempting to shape as a living dynamic.

3- Ecological concepts are similar to architectural mechanics in that they provide the basic organizing forms of eco-systems in the same way that architects shape and design buildings.

In an attempt to define human eco-systems, John Tillman Lyle (1984) stated in his book *Design of Human Eco-systems*, "Designers must understand ecological order operating at a variety of scales and link this understanding to human values if we are to create durable, responsible, beneficial designs." He came to the conclusion that human eco-systems are "places where humans and nature can be brought together again" for mutual benefit. Systems thinking and the New Economic movement are linked to regenerative design. Because it assumes that people and the environment should be a priority, the new economy assumes that decision-makers must restructure the current economic system. It also contends that human well-being, rather than economic growth, should be prioritized. Now we can see it, and as Sanford (2017) points out, the different approaches to biomimicry: biophilic design, ecological economics, and circular economics have all influenced and influenced regenerative design. John Tillman Lyle's "Industrial Land-Use Practices," published in 1996, was the first comprehensive articulation of regenerative design. *Regenerative Design for Sustainable Development* is the title of the book. He penned it in order to create a framework for regenerative design systems. It lays out the framework, principles, and strategies for an environmental design technology. The book demonstrated the writer's ongoing evaluation of thinking as an architect and editor, as well as his deep concern about resource depletion and environmental degradation caused by conventional industrial development.

In his book, Lyle argues that rather than designing an individual unit that can adapt to local conditions, humans create relatively simple patterns and forms that can be easily replicated without considering how relevant the design is to the surrounding environment. These patterns can be harmful to the environment because they consume resources without regard for their long-term viability. This system was described by Lyle as "one-way," and he predicted that it would eventually destroy the landscapes that surrounded the units. Regenerative design, according to Lyle, is defined as "replacing linear systems of throughput flows with cyclical flows at sources, consumption centers, and sinks." He assumed that the functional processes of this replacement would provide the energy and materials required for their operation. For instance, a building, according to Gibber, cannot be sustainable in and of itself, but it can support a sustainable lifestyle because it is part of a larger human endeavor. As a result, understanding the relationship between the human system and nature is critical. This relationship can be described as a co-evolutionary partnership that teaches us the value of project location and location.

Regenerative design, according to Bruno Duarte Dias, focuses on mapping relationships rather than the traditional weighing and measuring of sustainable design that affects the environment, social life, and economy. Dias agrees with Cole, stating that understanding place and its unique patterns, designing for harmony, and co-evolution are three fundamental aspects of regenerative design. One of the regenerative design effects is that it alters people's relationships with their living environments, which has piqued academic interest in regenerative design systems. It may be able to help restore a different level of

practical ecological competence, allowing humans to be a better version of themselves. Traditional systems with inherent fragility have costs and consequences that regenerative design helps us understand. "Regenerative design teaches us how to be competent, respectful, and generous wherever we are." 2016 (Wiley, Incorporated). The design of our space should include some elements that will assist us in dealing with future environmental risks, such as retaining water during droughts, managing floods, growing food and fiber, sustaining wildlife, and absorbing carbon.

Community unity bonding is a goal of regenerative design. In cities marked by public interdependence, it should increase opportunities for caring, conviviality, celebration, and face-to-face democracy. Front porches, public squares, community gardens, solar systems, neighborhood stores, corner pubs, and open places of worship all demonstrate this interdependence. These cities are more likely to thrive in the coming years because they foster neighborliness, community cohesion, and resilience to adversity." "Good design should engage people in making their homes, neighborhoods, towns, and regions. It should increase civic intelligence, sense of potential, and joy in life. In this way, designers are facilitators in a larger public conversation, architects of better possibilities, not just makers of buildings and things." (Wiley, Incorporated, 2016) The goal of regenerative design is to create dynamic and emergent vital systems that benefit humans and other species. As a process that stands by sharing, exclusivity, and renewal, this regeneration strategy is based on many integrative roles. Furthermore, it is used in and of itself. Regenerative design has become more accessible to users over time

through various platforms such as open-source and socio-technical, as seen in today's "SMART cities." The term "SMART cities" is usually used to describe the process of gathering feedback, participatory governance, sortition, and participatory budgeting in communities and cities. The four fundamental aspects of regenerative design can be summarized as follows: human-nature co-evolution, designing in the context of place, gardener analogy, and conservation vs. preservation.

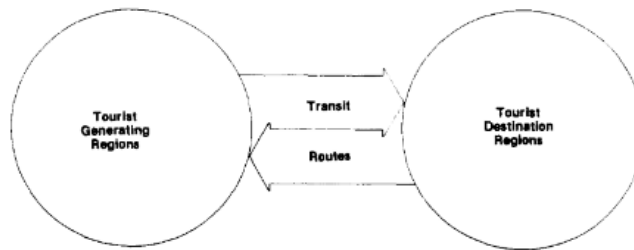
## **2.7 ExperientialHotels**

Exploration and interaction with the environment have been a part of human nature since the beginning of time. People nowadays are more interested in trying new and exciting things to break up their monotonous lives. Instead of living in the moment, tourism has recently become focused on taking the perfect picture that fits the social media platforms, the ideal angle, and the ideal background. Being surrounded by beauty is one thing; living in beauty is quite another. Over time, even the most beautiful things can go unnoticed, and even the most beautiful spaces can lose their emotional appeal. Living the experience is one way to maintain the same sense of connection with a space. Exploration lifts people's spirits and broadens their horizons intellectually. When discussing exploratory tourism, it is clear that hotels and accommodations were not given the attention they deserved or were considered part of the experiment. At the same time, it is impossible to deny the designers' right to link accommodations to the explorations available from the region's destinations. Experiential hotels rely on people's excitement and desire to have unique experiences in the places they visit, so architects and designers tried to capitalize on this expectation.

## 2.8 Tourism

"Tourism comprises the activities of persons traveling to and staying in places outside their usual environment for not more than one year for leisure, business, and other purposes," according to the World Tourism Organization (Cohen, 1984). At first, three approaches were used to study tourism, and then scholars came up with a five-element holistic definition. Scholars initially discussed tourism from three perspectives: economic, technical, and holistic, but they soon realized that they needed to be more specific. Tourism developed a new definition as a result of this. Tourists, three geographical elements (generating region, transit route, and destination region), and the tourist industry are all separated. (1979, Leiper) More economic factors, such as providing transportation, lodging, recreation, food, and related services for domestic and international travelers, have been added to the tourism definition. In some academic circles, tourism as a separate main topic has been regarded with scorn. That, however, could be in the past. Everything is changing now as a result of changes in government plans to engage the tourism industry. In his article *The Framework of Tourism*, Leiper (1979) discussed the reasons why tourism was shunned. Due to a lack of transportation, tourism was difficult to pursue. People struggled with commuting, the financial aspect of travel, and how travel was only available to the wealthy. It lacked the necessary elements to be taken seriously. As previously stated, there are three methods for defining tourism: economic definition, technical definition, and holistic definition. It cannot rely on the economic definition because it excludes tourists, who are an important part of the process. In a 1942 study, two Swiss academics defined tourism as "the sum of the

phenomena and relationships arising from non-residents' travel and stay, insofar as they do not lead to permanent residence and are not connected to any earning activity" (Hunziker&Kraph in Burkart &Medlik 1974:40). "Tourism is the study of man away from his usual habitat, of the industry that responds to his needs, and of the impacts that both he and the industry have on the host's socio-cultural, economic, and physical environments," according to another holistic definition. (Jafari 1977, p. 8)There are three components to tourism. There is a starting point or tourist-generating region where tours begin and end, and a tourist destination region where tourists stay for a short time. Finally, tourists travel through a transit region or route that connects the two.



*Figure 2.6: The Three Elements of Tourism(Leiper, 1979)*

### **2.8.1 Sustainable Tourism**

Sustainable tourism has its origins in the larger issue of global sustainable development. According to Weedenin 2002, the term "sustainable tourism" first appeared in March 1980 with the release of the World Conservation Strategy and the establishment of the World Commission on Environment and Development (WCED). The WCED's 'Our Common Future,' also known as the Brundtland Report, emphasized the importance of sustainability for future world economic development, which is critical for the future

of global tourism. Despite a significant disagreement over the definition of sustainable tourism, the key principles of sustainable tourism are now considered to be in general agreement (Ayuso, 2007). These values are based on social, economic, and environmental fairness (Dinan & Sargeant, 2000). This study points directly to the third of the key principles of sustainable tourism, as well as indirectly to the second.

Some issues that need to be considered have been addressed in the *Journal of Sustainable Tourism*. One of them is debating the host population's interests and how the destination community can benefit economically from tourism while maintaining its culture. While the vast majority have the same attitude toward the host population, tourism has primarily negative social and cultural consequences. As a result, any tourism-related socio-cultural changes should be avoided, which is where this research from the perspective of design comes in. Identifying the factors that lead to more sustainable tourism is one of the most difficult challenges in urban tourism research. As a result, resolving the conflict between construction and tribal discrimination for the residents of the area, as well as what sustainability means as a business challenge, is critical. Environmental concerns, the use of technology, and energy efficiency have been recent trends in the hospitality industry. Some believe it is subject to public pressure or regulatory institutions that are unconcerned about its significance.

### **2.8.2 Culture Tourism**

To gain a more comprehensive perspective, it is necessary to comprehend the factors that influence cultural tourism. Cultural tourism elements were identified by Bob Mckercher and Hillary du Cros (2002) as tourism, cultural heritage assets, experiences



and products, and tourist consumption. When Thomas lea Davidson (1994) examines three perspectives on tourism, he discovers that tourism is all about the experience. Tourism must provide a variety of experiences for all types of travelers. Also, keep in mind that tourism is more of a social phenomenon than a product activity. Tourism is a broad term that encompasses a wide range of activities. Cultural tourism, on the other hand, is the most well-known among tourists, as it encompasses "the full range of experiences visitors can undertake to learn what makes a destination distinctive - its lifestyle, its heritage, its arts, and its people- and the business of providing and interpreting that culture to visitors," as defined by the Australian Federal Government. It would be easier to understand cultural heritage assets if you looked at the definitions of both parts of the sentence. Because heritage is known as the link between generations, it also requires current attention to keep up with the past. From another perspective, it is a historical product that is modern. Heritage is divided into cultural and natural heritage in Malaysia, thanks to the Malaysian National Heritage Department. Furthermore, it is divided into two types: fixed and unfixed heritage.

### **2.8.3 The Relationship Between the Environmental Impact and Tourism and Hospitality in Manufacturing Sustainable Buildings.**

The core idea of sustainable tourism development is to meet the needs of current tourists and host regions while also safeguarding and expanding future opportunities. To preserve cultural integrity, essential ecological processes, biological diversity, and life support systems, it manages all economic, social, and aesthetic resources. The central concept of sustainable tourism development is to meet the needs of current tourists and

host regions while also safeguarding and expanding future opportunities. To preserve cultural integrity, essential ecological processes, biological diversity, and life support systems, it manages all economic, social, and aesthetic resources. Sustainable tourism has been regarded as a promising long-term solution for addressing the issues of negative tourism impacts and ensuring its long-term viability. Bramwell and Lane took it as an approach in 1993 to reduce the negative impact on the tourism industry, tourists, the environment, and host communities; to ensure the long-term capacity and quality of both natural and human resources. Indeed, in the literature, these two phrases have been used loosely and frequently interchangeably. However, without getting bogged down in a semantic debate about terminology, it is undeniably indicated steady.

Sustainable tourism can be defined as any form of tourism (traditional or alternative) that is compatible with or contributes to long-term development (Liu, 2003); however, it does not always emphasize growth. "It is essentially a process of achieving specific social and economic goals that may necessitate the stabilization, increase, reduction, change in quality, or even removal of existing products, firms, industries, or other elements" (Liu & Jones, 1996: 217). It is critical to define the objective keys for sustainable tourism, which Cater (1993) breaks down into three categories:

- 1- First, it satisfies the needs of hosts in terms of improved living standards in the short and long term (Cater, 1993).
- 2- Second, it meets the needs of an increasing number of tourists.
- 3 - Third, it protects the natural environment in order to achieve both primary goals.

## **2.9 Certifications, Rating Systems, & labels**

### **2.9.1 Green Building Certification**

Green building certification systems, which are rating systems and tools used to evaluate a building's or a construction project's performance from a sustainability and environmental standpoint, have advantages. These certifications have several main goals, including improving building performance and reducing environmental impacts, quantifying a building's environmental effects, and establishing standards and benchmarks to objectively assess buildings. In addition, there are a number of advantages to certifying a building or a property, including: To begin, the negative effects of a structure on the environment can be better understood, and this knowledge can be used to mitigate those effects. Second, to meet the building's technical, economic, social, and functional requirements, holistic sustainability considerations will be made. Third, it encourages the use of sustainable design and construction principles throughout the lifecycle of a building. Finally, it raises a building's or property's monetary value in the real estate market. Alternatively, as stated by the Green Building Alliance, the following are some of the advantages of these certifications:

- Increased resale or rental value
- Enhanced tenant and occupant satisfaction
- Higher staff productivity and a sense of belonging
- Operating costs are reduced.
- Possibilities for local and national recognition

These certifications are considered third-party, which is a great way to give any green building credibility. "While third-party certification is not the only way to ensure a healthy and high-performance space, it is unquestionably one of the most efficient." (Green Building Alliance, n.d., Green Building Certifications, Rating Systems, and Labels.) The benefits, requirements, considerations, and costs of thirteen green building certifications may be similar or dissimilar.

- 1- ENERGY STAR for Buildings
- 2- LEED: Leadership in Energy & Environmental Design
- 3- Living Building Challenge
- 4- WELL Building Standard
- 5- Passive House
- 6- NZEB: Net Zero Energy Building
- 7- BOMA 360 Performance Program
- 8- Green Globes
- 9- ENERGY STAR for Homes
- 10- HERS: Home Energy Rating System
- 11- National Green Building Standard
- 12- Parksmart
- 13- Zero tool
- 14- BREEAM

### **2.9.2 Certification in the Tourism Industry**

There has been a constant debate over the definition of sustainable tourism over the years, as well as a conflict between the concepts of sustainable tourism accreditation and tourism certification. To distinguish between them, we must first understand their meanings. Accreditation is the process by which a company endorses a certification agency to ensure that it meets a set of standards (Black & Crabtree, 2007; Buckley, 2002; Font & Sallows, 2002). Accreditation is necessary because it establishes quality standards for industry and markets, as well as adding credibility and validity to various certification schemes (Font et al., 2003). Certification is defined as "the process of providing documented assurance that a product, service, or organization complies with a set of requirements" (Font et al., 2003:213). Local and international certifications are the two types of certifications available around the world. According to Vertinsky and Zhou (2000), local certifications provide competition with coordination, prevent excessive government intervention, and present a positive destination image. Voluntary tourism certification plans, on the other hand, have primarily developed in the hospitality sector in the United Kingdom. In fact, more than 20 sustainable accommodation certification schemes exist in the United Kingdom, and more than a hundred global sustainable tourism certification schemes existed by 2002. (Medina, 2005). The following are some of the more well-known certification programs:

- Green Globe 21
- Green Key
- Certificate for Sustainable Tourism
- Ecotourism Kenya,
- Ecotourism Australia and STEP,
- The Sustainable Tourism Eco-certification Standard.

The Rainforest Alliance, the United Nations Environment Programme (UNEP), and the United Nations Foundation collaborated to create the Tourism Sustainability Council, which was designed to oversee the implementation of a set of (voluntary) Global Sustainable Tourism Criteria (GSTC). However, there are concerns about the criteria's clarity, their inflexibility in adapting to local conditions, and a lack of agreement on appropriate fees. Furthermore, there has been some concern about implementing an international scheme, as this could detract from the effectiveness of strong national schemes (Goodwin, 2010). There are numerous concerns about existing certification schemes, including the creation of excessive entry barriers by raising the standards, and thus the cost, of applying for certification, focusing too heavily on hotel or ecotourism providers, and being overly weighted in favor of environmental benefit (Font, 2002; Font & Buckley, 2001). The Rainforest Alliance, the United Nations Environment Programme (UNEP), and the United Nations Foundation collaborated to create the Tourism Sustainability Council, which was intended to oversee the implementation of a (voluntary) set of Global Sustainable Tourism Criteria (GSTC). However, there are concerns about the criteria's clarity, their inflexibility in adapting to local conditions, and a lack of agreement on appropriate fees. Furthermore, there has been some concern about implementing an international scheme, as this could detract from the effectiveness of strong national schemes (Goodwin, 2010).

### CHAPTER 3

## METHODOLOGY

### **3.1 Introduction**

Qualitative studies are characterized by concurrent data collection and analysis, with the results of ongoing analysis informing future data collection." Qualitative methods are divided into five types, according to Creswell (2012): phenomenological research, grounded theory, ethnography, case study, and narrative research. Stake defines the case study approach to scientific inquiry in his book *The Art of Case Study Research*. He divided case studies into three categories: intrinsic, instrumental, and collective. The collective case study is an excellent method to use in this study. Collective case studies help shape this research by providing a comprehensive understanding of a particular issue. This research includes a thorough literature review to support the case study's findings. In particular, this chapter discusses a qualitative methodology that was developed and tested during the research for this thesis. This methodology will be used to answer critical research questions in particular. To achieve this goal, the research structure is designed to clarify the information gleaned from the literature review on sustainability. Critical regionalism, biophilic design, regenerative design, tourism, interaction, knowledge gaps, and research questions were among the topics covered.

### **3.2 Method**

A case study, according to Robert K. Yin, is an empirical investigation into a current phenomenon in its real-life context, especially when the boundaries between

phenomenon and context are blurred (Yin, 2013). Given the nature of the research question relating to the quality of similar projects and the complex use of design elements, a collective case studies strategy was used in this study, as the case study is defined from general conditions towards pertinent samples of the phenomenon to be studied. In this case, the research will focus on experiential hotels that use the above-mentioned design approaches. A case study can be linked to an empirical topic by following a set of predetermined procedures, such as asking "how" or "why" questions to reveal more information. Since the purpose of this research is to learn how critical regionalism, biophilic design, and regenerative design contribute to the creation of an experiential hotel and the advancement of sustainability goals? What design principles, in addition, contribute to making hotels more experiential?

Quantitative data alone cannot explain the link between critical regionalism, biophilia design, regenerative design, and experiential hotels, but research-based case studies can. In addition, a case study was chosen that was appropriate for this type of social inquiry. To avoid bias and ensure reflexivity, transferability, and strength of interpretation and analysis, the author used the following procedures:

1. Taking notes while we are looking at the data to help us with self-analysis and observations.
2. Comparing and contrasting the numerous discussions/observations held between the author's chosen hotels and accommodations for this study.
3. Using the above steps to contextualize materials in order to consider issues, patterns, and comparative analysis.



The data collected from the different methods used in this proposal will be examined systematically to be included in the database system, and the research will be designed using basic methods and techniques that best serve the purpose of the study. The primary and secondary elements of the conducted framework will be used to collect data. Analytical pairs aid in the evaluation of critical regionalism projects involving local and global influences. Space/Place, Architectonic/Scenographic, Artificial/Natural, and Visual/Tactile are the four pairs that make up critical regionalism characteristics. Finger number eight. It also makes use of the six categories of biophilia, as well as the 72 features listed in Table 3.1. It has set tables to assist in managing the collected information in order to keep it in proper order and avoid bifurcation in subtraction. The first table examines general information such as the name of the lodging, architect, year of establishment, country, type of lodging, provided lodging, associated facilities, surrounding environment, and site description. Meanwhile, the second table will aid in the research of design features, design philosophies, construction style, and materials and resources. It also investigates the characteristics, aspects, or attributes of the chosen sustainable sub-movements.

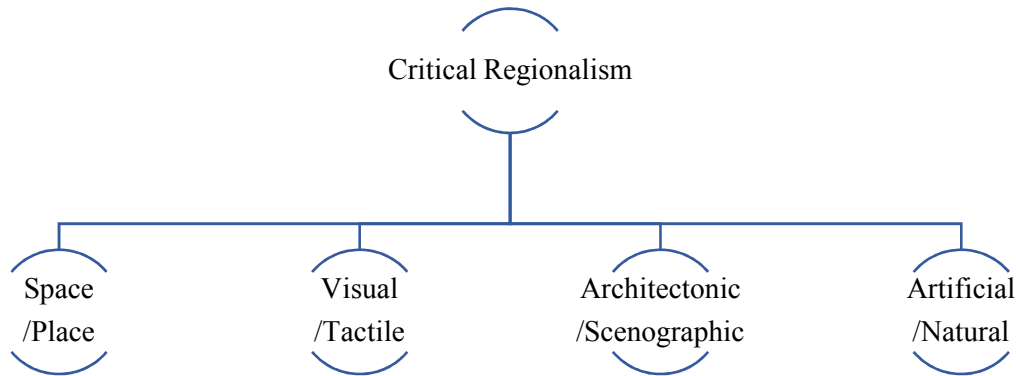


Figure 3. 1: Critical Regionalism Characteristics Existing (Rohlfing, 2020)

Environmental features	Natural shapes and forms	Natural patterns and process
<ul style="list-style-type: none"> <li>. Color</li> <li>. Water</li> <li>. Air</li> <li>. Sunlight</li> <li>. Plants</li> <li>. Animals</li> <li>. Natural Materials</li> <li>. View and vistas</li> <li>. Geology and landscape</li> <li>. Habitat and ecosystem</li> <li>. Fire</li> </ul>	<ul style="list-style-type: none"> <li>. Botanical motifs</li> <li>. Trees and columnar support</li> <li>. Animal (mainly vertebrate) motifs</li> <li>. Shells and spiral</li> <li>. Egg, oval and tubular forms</li> <li>. Arches, Vaults, domes</li> <li>. Shapes resisting straight lines and right angles</li> <li>. Simulation of natural features</li> <li>. Biography</li> <li>. Geomorphology</li> <li>. Biomimicry</li> </ul>	<ul style="list-style-type: none"> <li>. Sensory variability</li> <li>. Information richness</li> <li>. Age, change, and the patina of time growth and efflorescence</li> <li>. Central focal point</li> <li>. Patterned wholes</li> <li>. Bounded spaces Transitional spaces</li> <li>. Linked series and chains</li> <li>. Integration of parts to wholes</li> <li>. Complementary contrasts</li> <li>. Dynamic balance and tension</li> <li>. fractals § Hierarchically organized ratios and scales</li> </ul>
Light and space	Place-based relationship	Evolved human-nature relationship
<ul style="list-style-type: none"> <li>. Natural Light</li> <li>. Filtered and diffused light</li> <li>. Warm light</li> <li>. Light as shapes</li> <li>. Spaciousness</li> <li>. Light pools</li> <li>. Light and shadows</li> <li>. Reflected light</li> <li>. Special variability</li> <li>. Special harmony</li> <li>. Inside-outside spaces</li> </ul>	<ul style="list-style-type: none"> <li>. Geographic connection to place</li> <li>. Historical connection to place</li> <li>. Ecological connection to the place</li> <li>. Cultural connection to the place</li> <li>. Indigenous materials</li> <li>. Integration of culture and ecology</li> <li>. Spirit of place</li> </ul>	<ul style="list-style-type: none"> <li>. Prospect and refuge</li> <li>. Order and complexity</li> <li>. Curiosity and enticement</li> <li>. Security and protection</li> <li>. Mastery and control</li> <li>. Affection and attachment</li> <li>. Attraction and beauty</li> <li>. Exploration and discovery</li> <li>. Information and cognition</li> <li>. Fear and awe</li> <li>. Reverence and spirituality</li> </ul>

	. Landscape orientation . The landscape featured defines the building form . Indigenous material . Avoiding place-lessness . Landscape ecology	
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Table 3.1: Elements and Attributes of Biophilic Design (Kellert 2008, page 15)

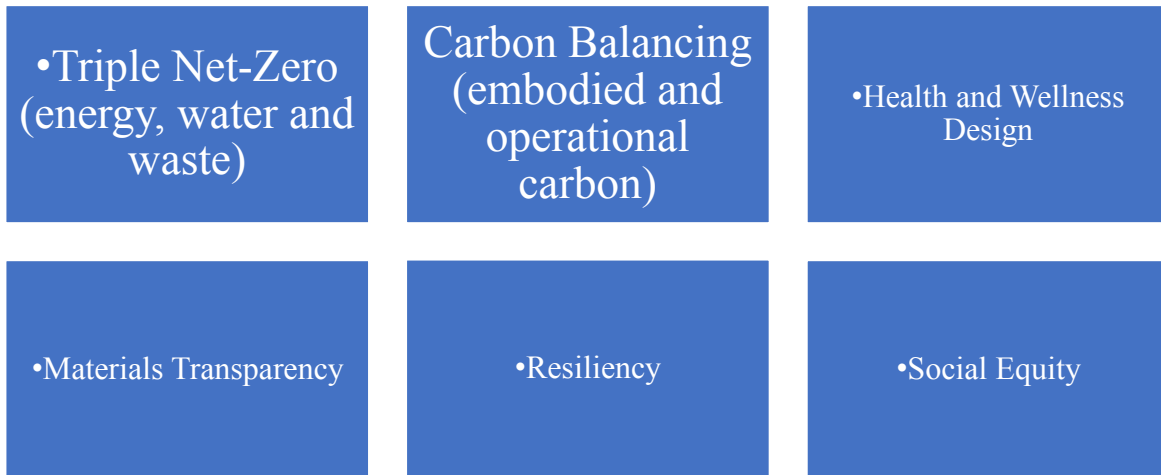


Figure 3. 2: The Paradigms That Regenerative Design Incorporates and Builds Upon

### 3.3 Site Analysis and Selection

To answer the research questions and achieve the study's goals, six experiential hotels from around the world were chosen. To conduct this research, the researcher will study a variety of accommodations. In terms of location and type of hospitality, these accommodations must be comparable. Many accommodations around the world provide an excellent experience. Following a search and inquiry, the following accommodations with similar physical characteristics were discovered:

- In the hotel, the use of critical regionalism, Biophilic design, and regenerative design
- The area's topography (desert, mountains, and beaches.)

- Materials.
- The consumption of energy.
- The design system that was employed.

The design integrates the structure with the surrounding environment and community.

Explora Lodge, Sandibe Okavango Safari Lodge, Hotel Brooklyn Bridge, Sossusvlei Desert Lodge, Wild Coast Tented Lodge, and Kandalama Hotel are the six locations chosen.

## CHAPTER 4

### RESULT AND ANALYSIS

#### 4.1 ExploraLodge

- General Information

Explora lodge	By: Germán del Sol, José Cruz		1995	CHILE
The number of units:	49		Star rating	5-star hotel
provided accommodations	resort	motel	hotel	surrounding environment
			<input checked="" type="checkbox"/>	
Type	Rooms	Cabins		Tent, van
	<input checked="" type="checkbox"/>			Apartment s
Associated facilities	Pool/s	Spa/s	Sauna/s	Restaurant /s
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Conference	Room/s	Laundry	Other
		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
Certificated	Yes	No	Certification name	<ul style="list-style-type: none"> <li>• World Travel Award - WORLD'S</li> <li>• WORLD'S LEADING EXPEDITION COMPANY 2021</li> <li>• THE BEST HOTELS AND RESORTS IN THE WORLD: THE GOLD LIST 2022</li> <li>• Conde Nast traveler</li> </ul>
	<input checked="" type="checkbox"/>			

Site description	Large windows and materials were used to connect the hotel interior to the surrounding area; additionally, the design was inspired by natural forms to help strengthen the main structure. In addition, the hotel was constructed in accordance with the land's natural environment.
------------------	--

Table 4.1: Explora Hotel general information

- Design Information

Design philosophies	It is built as an enclave to explore the region's extraordinary geography and nature, and its construction is based on essential luxuries that allow guests to enjoy this remote location in the heart of the region without distractions.														
Building style	It has something to do with the fusion of nature and civilization. "Like the sand that appears when the tide comes in."														
Materials & Resources	Copper, recycled wood, and stones from local quarries.														
Applied Critical regionalism design theory through	Space/Place	<input checked="" type="checkbox"/>	<table border="1"> <tr> <th colspan="2">Notice</th> </tr> <tr> <td>. Established a link between the city and nature</td> <td></td> </tr> <tr> <td>. Harmony with the site topography</td> <td></td> </tr> </table>	Notice		. Established a link between the city and nature		. Harmony with the site topography							
	Notice														
	. Established a link between the city and nature														
	. Harmony with the site topography														
Artificial/Natural	<input checked="" type="checkbox"/>	. The combination of natural and artificial light													
Visual/Tactile	<input checked="" type="checkbox"/>	. Enable visual connection to nature through the expansive windows													
Architectonic/Scenographic	-	-													
Applied biophilic design theory through	Environmental features	<input checked="" type="checkbox"/>	<table border="1"> <tr> <th colspan="2">Notice</th> </tr> <tr> <td>. Color</td> <td></td> </tr> <tr> <td>. Sunlight</td> <td></td> </tr> <tr> <td>. Natural Materials</td> <td></td> </tr> <tr> <td>. View and vistas</td> <td></td> </tr> <tr> <td>. Geology and landscape</td> <td></td> </tr> </table>	Notice		. Color		. Sunlight		. Natural Materials		. View and vistas		. Geology and landscape	
	Notice														
. Color															
. Sunlight															
. Natural Materials															
. View and vistas															
. Geology and landscape															
Natural shapes and forms	<input checked="" type="checkbox"/>	. Egg, oval and tubular forms													

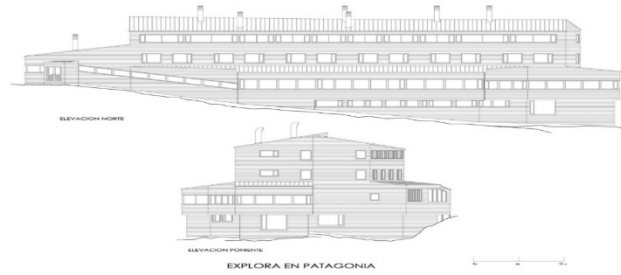
	Natural patterns and process	<input checked="" type="checkbox"/>	. Sensory variability
	Light and space	<input checked="" type="checkbox"/>	. Natural Light . Warm light . Light and shadows . Special harmony
	Evolved human-nature relationship	<input checked="" type="checkbox"/>	. Geographic connection to place . Ecological connection to the place . Indigenous materials . Spirit of place . Landscape orientation . The landscape featured defines the building form . Landscape ecology
	Place-based relationship	<input checked="" type="checkbox"/>	. Attraction and beauty . Exploration and discovery
Applied eco-regenerative design theory through	Carbon Balancing (embodied and operational carbon)	-	Notice -
	Triple Net-Zero (energy, water, and waste)	<input checked="" type="checkbox"/>	. The lodge also offers recycling, power, and water efficiency.
	Health and Wellness Design	-	
	Resiliency	-	
	Social Equity	<input checked="" type="checkbox"/>	. Explora provides guests the opportunity to help restore the lost by allowing them to sponsor one of 700 Lenga trees that are replanted to preserve the park's beauty.
	Materials Transparency	-	

Table 4.2: Explora Hotel design information

- Comprehensive information

Expansive windows, which are a feature of biophilic design and critical regionalism, were found to contribute to the creation of an experiential hotel in the study. Expansive windows provide a sense of endless adventure, as well as an endless visual extension of the surrounding nature and continuous natural light. Second, maintaining the topography of the site while adapting to hotel design would improve the connection between tourists and hotel locations. The old concept of changing the land's topography into a flat, even surface would detract from the experience's credibility and prevent the design's dramatic character. Maintaining the topography of the land aids in the preservation of the environment's features. To maintain the region's design and enhance the sense of the surrounding nature and local culture, Germán del Sol relies on local materials. Guests at Explora have the opportunity to assist in the restoration of the lost forest. Visitors can sponsor one of 700 Lengua trees that are being replanted to maintain the park's beauty. The lodge also promotes recycling, energy efficiency, and water conservation. Finally, while Explora's design was concerned with conveying and adapting to the region's nature, it did not abandon the idea of experiencing the basic luxuries required in this experiential hotel. The design of this hotel could serve as an example of how to improve tourists' experiential feelings without depleting natural and cultural resources, as well as ensuring their continuity and growth by not cutting down trees for building materials. Instead, we can consider a regenerative design system that involves replanting these trees in new locations or ensuring that they decompose and return to their natural state.





*Figure 4.1: Explora Hotel Sectio Design (Explora Hotel in Patagonia / Germán Del Sol + José Cruz | ArchDaily, n.d.)*



*Figure 4.2: Explora Hotel Light (Explora Hotel in Patagonia / Germán Del Sol + José Cruz | ArchDaily, n.d.)*

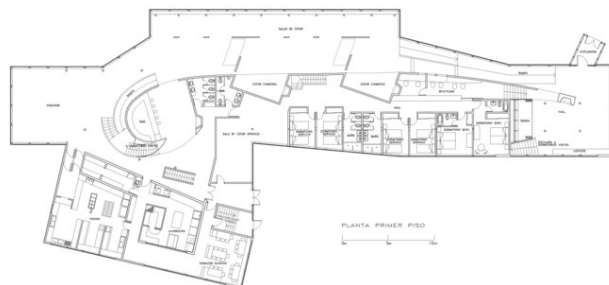


Figure 4.3: Explora Hotel Flore Plan (Explora Hotel in Patagonia / Germán Del Sol + José Cruz | ArchDaily, n.d.)

#### 4.2 Sandibe Okavango Safari Lodge.

- General information

	Sandibe Okavango Safari Lodge		By: Nicholas Plewman	2014	Botswana
The number of units:	24		Star rating	4-star hotel	Total surface (sqm2):5384 m <sup>2</sup>
provided accommodations	resort	motel	hotel	surrounding environment	woodland, floodplains, lagoons, and papyrus rivers.
			<input checked="" type="checkbox"/>		
Type	Rooms		Cabins	Tent, van	Apartments
	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		
Associated facilities	Pool/s		Spa/s	Sauna/s	Restaurant/s
	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
	Conference		Room/s	Laundry	Other
			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
Certificate	Yes	No	Certification name	World Travel Award - WORLD'S LEADING EXPEDITION COMPANY- Conde Nast traveler	
	<input checked="" type="checkbox"/>				
Site description	Suites and facilities are distributed along the river's banks, forming the shape of the river.				

Table 4.3: Sandibe Okavango Safari Lodge general information

- Design Information

Design philosophies	The inspiration for this lodge comes from animal shells or animals that carry their shelter. To put it another way, this hotel's design is woven from organic materials to hand. In other words, it looks like a
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	resting place for a giant scaled pangolin.		
Building style	They use organic architecture and incorporate it into African landscapes.		
Materials & Resources	Canadian cedar shingles, laminated pine beams, pine, "glazing" is Serge Ferrari Soltis fabric. FSC certified hardwoods woven into an interlocking mat of eucalyptus laths		
Applied Critical regionalism design theory through	Space/Place	<input checked="" type="checkbox"/>	Notice Harmony with the site topography
	Artificial/Natural	<input checked="" type="checkbox"/>	Light and pool
	Visual/Tactile	-	
	Architectonic/Scenographic	<input checked="" type="checkbox"/>	
Applied biophilic design theory through	Environmental features	<input checked="" type="checkbox"/>	Notice . Color . Water . Air . Sunlight . Plants . Natural Materials . Views and vistas . Geology and landscape . Habitat and ecosystem
	Natural shapes and forms	<input checked="" type="checkbox"/>	Shells and spirals
	Natural patterns and process	<input checked="" type="checkbox"/>	-Ecological connection to the place -Indigenous materials -Landscape ecology
	Light and space	<input checked="" type="checkbox"/>	. Natural Light . Warm light . Light pools . Spaciousness . Light and shadows

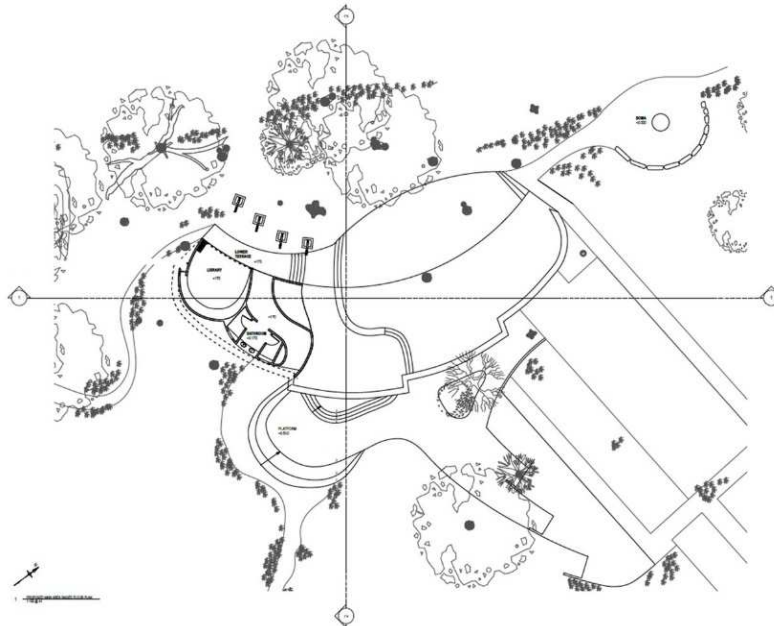
			<ul style="list-style-type: none"> <li>. Special harmony</li> <li>. Inside-outside spaces</li> </ul>
	Evolved human-nature relationship	<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> <li>. Geographic connection to place</li> <li>. Ecological connection to the place</li> <li>. Cultural connection to the place</li> <li>. Indigenous materials</li> <li>. Integration of culture and ecology</li> <li>. Spirit of place</li> <li>. Landscape orientation</li> <li>. The landscape featured defines the building form</li> <li>. Indigenous material</li> <li>. Avoiding placelessness</li> <li>. Landscape ecology</li> </ul>
	Place-based relationship	<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> <li>. Prospect and refuge</li> <li>. Attraction and beauty</li> <li>. Exploration and discovery</li> </ul>
Applied eco-regenerative design theory through	Carbon Balancing (embodied and operational carbon)	-	<p style="text-align: center;">Notice</p> <p style="text-align: center;">-</p>
	Triple Net-Zero (energy, water, and waste)	<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> <li>- 70 % of the lodge's energy requirements had to be of sustainable origin.</li> <li>-complete treatment of sewerage and removal of waste.</li> <li>- Artificial light and warm water are taken from the solar array.</li> <li>- All water and soil waste are collected and pumped through an accredited biological treatment plant that renders</li> </ul>

			effluent certifiably safe for discharge into the compassionate environment.
	Health and Wellness Design	-	-
	Resiliency		
	Social Equity	<input checked="" type="checkbox"/>	-Minimal to zero physical impact of any sort on the site, fauna, and flora.
	Materials Transparency	-	-

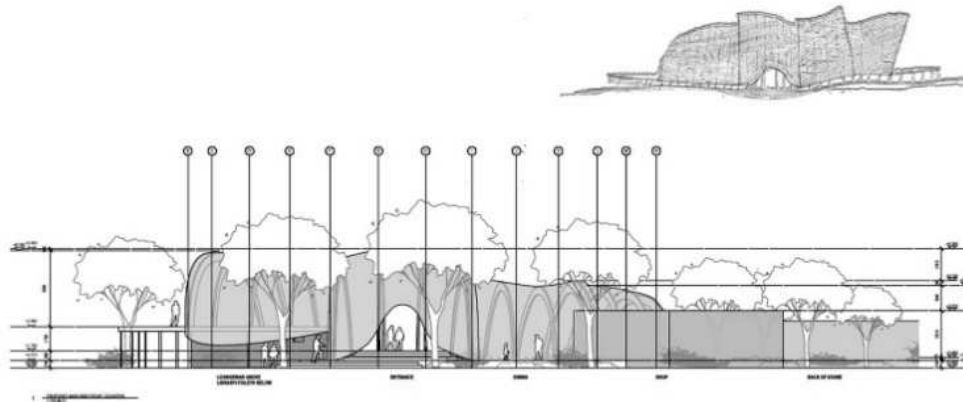
Table 4.4: Sandibe Okavango Safari Lodge design information

- Comprehensive information

This hotel exemplifies how sustainable design, critical regionalism, biophilic design, and regenerative design all play a role in creating an unforgettable experience. The lodge's design, which is inspired by the surrounding nature, enhances the sense of belonging to this nature, the local culture, and the feeling of its location, either directly or indirectly, allowing guests to fully enjoy the experience. To some extent, having a wild experience does not contradict luxury. The use of biodegradable materials ensures that locations will remain interesting to explore for hundreds of years. Natural shapes and forms are used in the hotel's design to make it feel like it belongs to its surroundings. The hotel suites' design on high pillars prevents animals from fleeing tourists. The absence of glass on the balcony and patio suggests a fusion of the hotel's exterior and interior. Designers must devise ways to assist and support some mechanical services, such as energy services and connecting devices to solar arrays, which cannot be serviced over



long distances. It should also be designed to aid in the completion of sewerage and waste removal treatment.



*Figure 4.4: Sandibe Okavango Safari Lodge Site Design (Sandibe Okavango Safari Lodge / Nicholas Plewman Architects in Association with Michaelis Boyd Associates | ArchDaily, n.d.)*

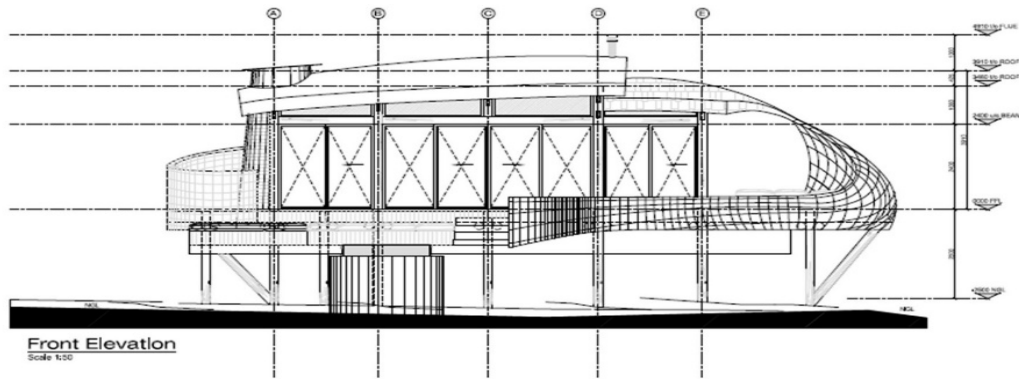


Figure 4.5: Sandibe Okavango Safari Lodge Section (Sandibe Okavango Safari Lodge / Nicholas Plewman Architects in Association with Michaelis Boyd Associates | ArchDaily, n.d.)

Figure 4.6: Sandibe Okavango Safari Lodge Suet Section (Sandibe Okavango Safari Lodge / Nicholas Plewman Architects in Association with Michaelis Boyd Associates | ArchDaily, n.d.)



Figure 4.7: Sandibe Okavango Safari Lodge Suet(Sandibe Okavango Safari Lodge / Nicholas Plewman Architects in Association with Michaelis Boyd Associates | ArchDaily, n.d.)

### 4.3 Hotel Brooklyn Bridge.

- General Information

	Hotel Brooklyn Bridge.		Marvel Architects	2017	United States
The number of units:	194		Star rating	5-star hotel	Total surface (sqm2): 57706m <sup>2</sup>
provided accommodations	resort	motel	hotel	surrounding environment	Urban City, Park
			<input checked="" type="checkbox"/>		
Type	Rooms		Cabins	Tent, van	Apartment s
	<input checked="" type="checkbox"/>				
Associated facilities	Pool/s		Spa/s	Sauna/s	Restaurant /s
	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Conference		Room/s	Laundry	Other
	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Certificated	Yes	No	Certification name	LEED GOLD	
	<input checked="" type="checkbox"/>				



Site description	It consists of a series of interconnected buildings ranging in height from four to ten stories, as well as event space and a parking garage below grade.
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Table 4.5: Hotel Brooklyn Bridge general information

- Design Information

Design philosophies	The hotel was inspired by the natural surroundings and local handicrafts, with recycled wood from demolished warehouses and Quincy granite from the Brooklyn Bridge. There is a private development that links the city to the waterfront park.		
Building style	The architects and designers who worked on this hotel took into account the natural surroundings. Furthermore, they are adamant about reducing the negative impact that is always associated with the hospitality industry.		
Materials & Resources	Steel, Glass, Yellow Pine, and Granite		
Applied Critical regionalism design theory through	Space/Place	-	Notice
	Artificial/Natural	<input checked="" type="checkbox"/>	Merging between urban and rural
	Visual/Tactile	<input checked="" type="checkbox"/>	- Using the surrounding material, wood, and granite - Replanting trees that were taken from the land on which the hotel is located on its terrace
	Architectonic/Stenographic	<input checked="" type="checkbox"/>	The Hotel appears almost as the prow of a ship and references the area's industrial history.
Applied biophilic design theory through	Environmental features	<input checked="" type="checkbox"/>	Notice
			- color - plants - natural materials - views and vistas - geology and landscape

	Natural shapes and forms	<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> <li>- Trees and columnar support</li> <li>- Simulation of natural features</li> <li>- Biography</li> <li>- geomorphology</li> <li>- Biomimicry</li> </ul>
	Natural patterns and process	<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> <li>- Sensory variability</li> <li>- Information richness</li> <li>- Central focal point</li> <li>- Patterned wholes</li> <li>- Bounded spaces</li> <li>Transitional</li> <li>- Linked series and chains</li> <li>- Integration of parts to wholes</li> <li>- Complementary contrasts</li> <li>- Dynamic balance and tension</li> <li>- organized ratios and scales</li> </ul>
	Light and space	<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> <li>- Inside-outside spaces</li> <li>- Natural Light</li> <li>- Warm light</li> <li>- Filtered and diffused light</li> <li>- Light and shadows</li> </ul>
	Evolved human-nature relationship	<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> <li>- Affection and attachment</li> <li>- Attraction and beauty</li> <li>- Exploration and discovery</li> </ul>
	Place-based relationship	<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> <li>- Historical connection to place</li> <li>- Ecological connection to the place</li> <li>- Cultural connection to the place</li> <li>- Indigenous materials</li> <li>- Integration of culture and ecology</li> <li>- Spirit of place</li> </ul>

			<ul style="list-style-type: none"> <li>- Landscape orientation</li> <li>- Landscape featured that defines building form</li> <li>- Indigenous material</li> <li>- Avoiding placelessness</li> <li>- Landscape ecology</li> </ul>
applied eco-regenerative design theory through	Carbon Balancing (embodied and operational carbon)	<input checked="" type="checkbox"/>	<p style="text-align: center;">Notice</p> <ul style="list-style-type: none"> <li>. Operating properties have been 100% CERTIFIED CARBON NEUTRAL since 2018.</li> <li>. Offset 19,171 TONS of CO2.</li> </ul>
	Triple Net-Zero (energy, water, and waste)	<input checked="" type="checkbox"/>	-The hotel building uses wind power credits and operates a rainwater reclamation system
	Health and Wellness Design		
	Resiliency		
	Social Equity	<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> <li>. keep diversity, equity, and inclusion (DEI)</li> <li>. Remain on the path towards 15% BIPOC representation. and 50% female representation in leadership at SH Hotels &amp; Resorts by 2024</li> <li>. Rolled out a sustainability-focused incentive plan for our General Managers to encourage accountability and solution sharing across all properties.</li> <li>. facilitated DEI training for 128 of our leaders and established on-site DEI councils at</li> </ul>

			each of our properties.
	Materials Transparency		

Table 4.6: Hotel Brooklyn Bridge design information

- Comprehensive information

Exploration is not limited to wildlife; cities can also be explored. Critical regionalism goes beyond appearances, and it can be used to reformulate landmarks in industrial and commercial cities to create experiential hotels. Inside hospitality buildings, materials, design shapes, light movement, and distribution will all help to create an adventure. It can be seen in the granite desks in the lobe of the same Halloran, Maine, quarry that was used to construct The Brooklyn Bridge. By planting trees and having large windows, the biophilic design helped to improve the hotel's interior. The sheer window walls, which reflect and meld sky, park, river, bridge, and bustling Brooklyn neighborhood, also contributed to providing New York adventure. One of the improvements that this hotel could inspire is the use of a design system to factor in the need to satisfy all human senses while also preserving natural resources and ensuring their continuity and growth. One example of the system's design efficiency is the replanting of trees taken from the land on which the hotel is built on its terrace.



*Figure 4.8: Hotel Brooklyn Bridge Site Design(Pierhouse& 1 Hotel Brooklyn Bridge / Marvel Architects | ArchDaily, n.d.)*



*Figure 4.9: Hotel Brooklyn Bridge Design Philosophy(Pierhouse& 1 Hotel Brooklyn Bridge / Marvel Architects | ArchDaily, n.d.)*



Figure 4.10: Hotel Brooklyn Bridge Interior Biophilic Design(Pierhouse& 1 Hotel Brooklyn Bridge / Marvel Architects | ArchDaily, n.d.)

#### 4.4 `Sossusvlei Desert Lodge.

- General Information

	Sossusvlei Desert Lodge		Fox Browne Creative, Jack Alexander	2019	Namibia
The number of units:	10		Star rating	5-star hotel	Total surface (sqm2):4100 m <sup>2</sup>
provided accommodations	resort	motel	hotel	surrounding environment	Desert
			<input checked="" type="checkbox"/>		
Type	Rooms		Cabins	Tent, van	Apartments
	<input checked="" type="checkbox"/>				
Associated facilities	Pool/s		Spa/s	Sauna/s	Restaurants
	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
	Conference		Suits	Laundry	Other
			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Certificated	Yes	No	Certification name	. Namibia’s Leading Safari Lodge at World Travel Awards 2018 . TripAdvisor Certificate of Excellence. . wins the award for Namibia’s Leading Safari Lodge at the World Travel Awards	
	<input checked="" type="checkbox"/>				

				. Lodge becomes Namibia's first Virtuoso property
Site description	The hotel was built in the shape of a sand dune. The suites were not arranged in an A-line pattern. Instead, it took on a zigzag shape, similar to the desert mirage's first appearance. The main guest area and arrival area/assembly point were centered in the hotel model, with suites on both sides of the center area.			

Table 4.7: Sossusvlei Desert Lodge general information

- Design Information

Design philosophies	The lodge's location in the surreal desert landscape has been given top priority.		
Building style	This hotel was created using simple architectural gestures while remaining extremely sensitive to the desert. The pavilions made of man-made materials contrast with the natural shapes of the surrounding hills and dunes.		
Materials & Resources	Glass, rockwork, and steel		
Applied Critical regionalism design theory through	Space/Place	<input checked="" type="checkbox"/>	Notice . Destination and design it to function with features
	Artificial/Natural	<input checked="" type="checkbox"/>	. Companioned local and artificial materials
	Visual/Tactile	<input checked="" type="checkbox"/>	. Materials
	Architectonic/Stenographic	-	-
Applied biophilic design theory through	Environmental features	<input checked="" type="checkbox"/>	Notice . Color . Water . Sunlight . Natural Materials . View and vistas . Geology and landscape . Habitat and ecosystem . Fire

	Natural shapes and forms		<ul style="list-style-type: none"> <li>.Egg, oval and tubular forms</li> <li>.Arches, vaults, domes</li> </ul>
	Natural patterns and process	<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> <li>. Sensory variability</li> <li>. Central focal point</li> <li>. Bounded spaces</li> <li>Transitional spaces</li> <li>. Linked series and chains</li> <li><input checked="" type="checkbox"/> . Integration of parts to wholes</li> <li>. Complementary contrasts</li> <li>. Dynamic balance and tension</li> <li>. organized ratios and scales</li> </ul>
	Light and space	<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> <li>. Natural Light</li> <li>. Filtered and diffused light</li> <li><input checked="" type="checkbox"/> . Warm light</li> <li>. Light and shadows</li> <li>. Special variability</li> <li>. Special harmony</li> <li>. Inside-outside spaces</li> </ul>
	Evolved human-nature relationship	<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> <li>. Security and protection</li> <li><input checked="" type="checkbox"/> . Mastery and control</li> <li>. Attraction and beauty</li> <li>. Exploration and discovery</li> </ul>
	Place-based relationship	<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> <li>. Geographic connection to place</li> <li>. Historical connection to place</li> <li>. Ecological connection to the place</li> <li><input checked="" type="checkbox"/> . Cultural connection to the place</li> <li>. Integration of culture and ecology</li> <li>. Spirit of place</li> </ul>



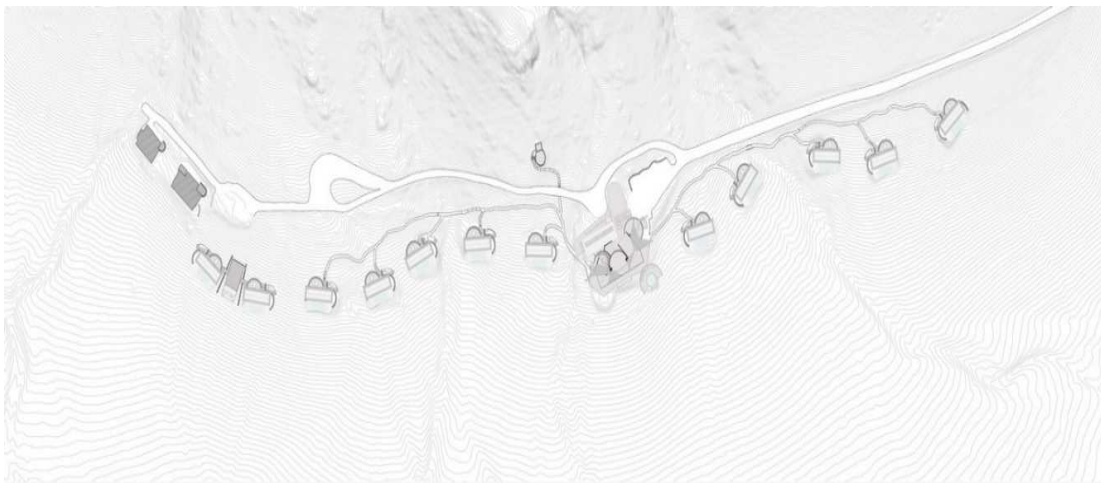
			. Landscape orientation . Indigenous material . Avoiding placelessness . Landscape ecology
Applied eco-regenerative design theory through	Carbon Balancing (embodied and operational carbon)	<input checked="" type="checkbox"/>	Notice -Sustainable design solutions allow for state-of-the-art water-saving mechanisms, water harvesting and recycling systems, and photovoltaic power generation in every room.
	Triple Net-Zero (energy, water, and waste)	<input checked="" type="checkbox"/>	- the roofs have been clad in PV panels -bottling water on-site and using recycled glass bottles -Rooms designed without baths
	Health and Wellness Design		
	Resiliency		
	Social Equity		

Table 4.8: `Sossusvlei Desert Lodge design information

- Comprehensive information

The topography of the land plays a major role in the construction and design of this type of hotel. Designers must be careful not to detract from the natural beauty of the land by incorporating elements and shapes that are not found in nature. They will eventually appear abnormally. This hotel may serve as an inspiration for designers to improve the process of locating specific areas for water refilling. The carbon footprint of the plastic

water delivery truck will be absorbed by bottling water on-site and using recycled glass bottles, saving a significant amount of CO2 per month. Furthermore, develop a design strategy that includes installing photovoltaic power generation in each room while maintaining the design's aesthetics. It's also critical to pay attention to the regular maintenance operation, which ensures the design system's quality. Designing annexes and service areas, for example, makes it easier to check systems for leaks on a regular basis.



*Figure 4.11: Sossusvlei Desert Lodge Site Design(AndBeyond Sossusvlei Desert Lodge / Fox Browne Creative, Jack Alexander | ArchDaily, n.d.)*



*Figure 4.12: Sossusvlei Desert Lodge Interior Design(AndBeyond Sossusvlei Desert Lodge / Fox Browne Creative, Jack Alexander | ArchDaily, n.d.)*



*Figure 4.13: Sossusvlei Desert Lodge Exterior Design(AndBeyond Sossusvlei Desert Lodge / Fox Browne Creative, Jack Alexander | ArchDaily, n.d.)*



*Figure 4.14: Sossusvlei Desert Lodge PV Panels (AndBeyond Sossusvlei Desert Lodge / Fox Browne Creative, Jack Alexander | ArchDaily, n.d.)*

## 4.5 Kandalama Hotel

- General Information

	Kandalama Hotel		Geoffrey Bawa	1994	Sri Lanka
The number of units:	100		Star rating	5-star hotel	Total surface (sqm2) 465: m <sup>2</sup>
provided accommodations	resort	motel	hotel	surrounding environment	Lake, Forests
			<input checked="" type="checkbox"/>		
Type	Rooms		Cabins	Tent, van	Apartment s
	<input checked="" type="checkbox"/>				
Associated facilities	Pool/s		Spa/s	Sauna/s	Restaurant /s
	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
	Conference		Suits	Laundry	Other
			<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
Certificated	Yes	No	Certification name	. Bronze LEED 2000 . Gold Travelife Sustainability in tourism	
	<input checked="" type="checkbox"/>				
Site description	The hotel design settled on three main sections after a long period of challenges. Guest rooms and the suits are located to the east and southwest of the hotel core, while shared facilities are located in a series of broad terraced spaces in the center of the complex.				

Table 4.9: Kandalama Hotel general information

- Design Information

Design philosophies	The hotel is built to protect the immediate environment of the cultural sites while also providing spectacular views of the monument across the lake.														
Building style	The architect incorporated the topography of the site into the hotel's design. He chose not to use any outside materials in the construction of the structure. As a result, he incorporated nature into the interior and exterior design of the building.														
Materials & Resources	Reinforced concrete, beams and slabs, glazed panels, and vines														
Applied Critical regionalism design theory through	Space/Place	<input checked="" type="checkbox"/>	<table border="1"> <tr> <th colspan="2">Notice</th> </tr> <tr> <td>Geographic connection to place</td> <td></td> </tr> </table>	Notice		Geographic connection to place									
	Notice														
	Geographic connection to place														
	Artificial/Natural	<input checked="" type="checkbox"/>	Companied materials												
Visual/Tactile	<input checked="" type="checkbox"/>	-the large, cave-like portecochère -the sequence of entry that culminated in the revelation of the distant view of the monument of Sigiriya only after entry to the hotel lobby													
Architectonic/Scenographic	<input checked="" type="checkbox"/>	-Create the feeling of bonding with nature and make the hotel look like a part of the tropical forest surrounding it. It gives a feeling of the endless													
Applied biophilic design theory through	Environmental features	<input checked="" type="checkbox"/>	<table border="1"> <tr> <th colspan="2">Notice</th> </tr> <tr> <td>. Sunlight</td> <td></td> </tr> <tr> <td>. Plants</td> <td></td> </tr> <tr> <td>. Natural Materials</td> <td></td> </tr> <tr> <td>. View and vistas</td> <td></td> </tr> <tr> <td>. Geology and</td> <td></td> </tr> </table>	Notice		. Sunlight		. Plants		. Natural Materials		. View and vistas		. Geology and	
Notice															
. Sunlight															
. Plants															
. Natural Materials															
. View and vistas															
. Geology and															

			landscape . Habitat and ecosystem
	Natural shapes and forms	<input checked="" type="checkbox"/>	. Geomorphology
	Natural patterns and process	<input checked="" type="checkbox"/>	. Sensory variability . Central focal point . Linked series and chains . Integration of parts to wholes . Complementary contrasts . Dynamic balance and tension
	Light and space	<input checked="" type="checkbox"/>	. Natural Light . Light and shadows . Special variability . Special harmony . Inside-outside spaces
	Evolved human-nature relationship	<input checked="" type="checkbox"/>	. Geographic connection to place . Ecological connection to the place . Spirit of place . Landscape orientation . The landscape featured defines the building form . Avoiding placelessness . Landscape ecology
	Place-based relationship	<input checked="" type="checkbox"/>	. Exploration and discovery Information and cognition . Fear and awe . Reverence and spirituality
Applied eco-regenerative	Carbon Balancing (embodied and operational carbon)	-	Notice -

design theory through	Triple Net-Zero (energy, water, and waste)	-	-
	Health and Wellness Design	-	-
	Resiliency	-	-
	Social Equity	<input checked="" type="checkbox"/>	Use technologies and systems designed to mitigate the environmental impact of the building's operation on the catchment of the nearby lake.
	Materials Transparency	-	-

Table 4.10: Kandalama Hotel design information

- Comprehensive information

The dramatic sense of the place must be given special consideration. The experiential hotel should be able to help retell the story of this location, as Bawa did with his spatial and visual entry sequence, which culminated in the revelation of a distant view of the Sigiriya monument only after entering the hotel lobby. These important aspects of regionalism, such as giving the place a tectonic sense and satisfying human senses through hotel design, provide a thorough understanding of the venture. Because it was designed to handle dry weather by using flat roofs and less intensive materials, this hotel also applied the concept of constructing climatically appropriate architecture. Because this structure was successful in achieving critical regionalism, it was also designed using biophilic design theory and the six main attributes of biophilic design. It also incorporates regenerative design by incorporating cutting-edge building technologies and systems that reduce the building's environmental impact on the nearby lake's catchment. Designers

might be inspired by this hotel's design to create a structure that blends in with nature and allows it to thrive without jeopardizing the hotel's primary function. The use of nature as a primary design element conveys a sense of nature in its most basic form while remaining true to its identity. The subtlety of the Kandalama Hotel effectively emphasizes the drama of the cliff-side topography and breathtaking views. The second improvement is combining multiple design approaches to ensure that the design is efficient and meets all of the building's requirements.

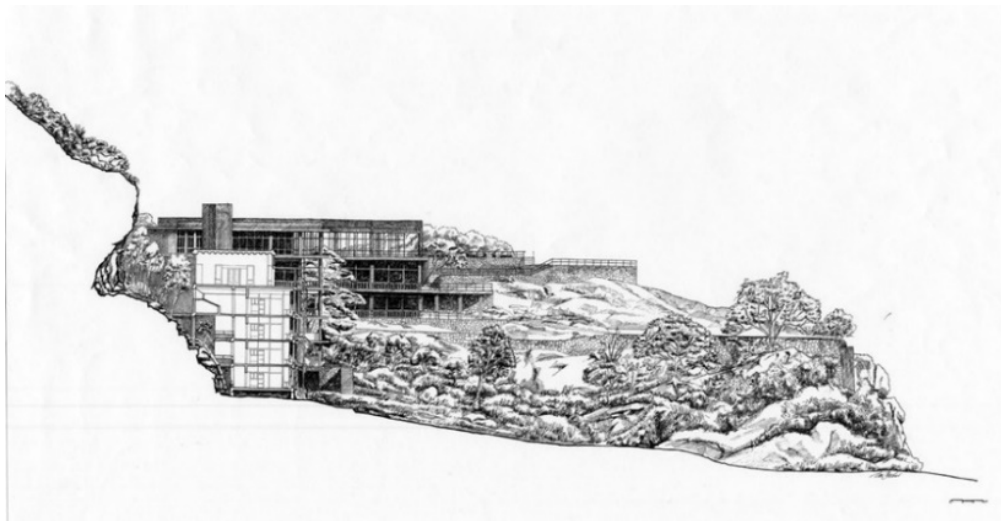


Figure 4.15: Horizontal section for Kandalama Hotel Design(*Remembering Bawa* | *ArchDaily*, n.d.)





*Figure 4.16: Kandalama Hotel Urban Design (Remembering Bawa | ArchDaily, n.d.)*



*Figure 4.17: Interior design for Kandalama Hotel (Remembering Bawa | ArchDaily, n.d.)*

#### 4.6 Wild Coast Tented Lodge.

- General Information

	Wild coast tented lodge	Nomadic Resorts		2017	Sri Lanka
The number of units:	36-tent	Star rating		5-star hotel	Total surface (sqm2): 5250 m <sup>2</sup>
provided accommodations	resort	motel	hotel	surrounding environment	A dryland forests and a rugged sandy coastline.
			<input checked="" type="checkbox"/>		
Type	Rooms	Cabins		Tent, van	Apartment s
				<input checked="" type="checkbox"/>	
Associated facilities	Pool/s	Spa/s		Sauna/s	Restaurant /s
	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>
	Conference	Room/s		Laundry	Other
					<input checked="" type="checkbox"/>
Certifticed	Yes	No	Certification name	It is recommended by several travel magazines but never certificate	
	<input checked="" type="checkbox"/>				
Site description	There are three main halls based on a thorough examination of the site and its surroundings. These halls have previously been used for group activities. In addition, there are 36 safari tent camps spread across a long stretch of land. Each tent group is situated on the shores of a lake.				

Table 4.11: Wild Coast Tented Lodge general information

- Design Information

Design philosophies	The hotel was built to blend in with the nearby rocks and boulders. These natural features inspired the shape and color of the tents.		
Building style	The shape of this hotel's location is similar to that of a leopard's paw. This project's design is based on sustainability, landscape, and heritage. He does, however, combine the famous print with the shape and color of the nearby rocks and boulders, alluding to the area's most famous residents.		
Materials & Resources	bamboo, teak shingles, a woven grid shell structure clad in reclaimed stone, quartz, mud brick, copper, brass, terrazzo, wood, and textiles.		
Applied Critical regionalism design theory through	Space/Place	<input checked="" type="checkbox"/>	Notice landscape and heritage are intertwined in the Hotel design
	Artificial/Natural	<input checked="" type="checkbox"/>	Lighting construction
	Visual/Tactile	-	-
	Architectonic/Scenographic	<input checked="" type="checkbox"/>	-
Applied biophilic design theory through	Environmental features	<input checked="" type="checkbox"/>	Notice . Color . Sunlight . Plants . Animals . Natural Materials . Views and vistas . Geology and landscape
	Natural shapes and forms	<input checked="" type="checkbox"/>	. Arches, Vaults, domes . Shapes resisting straight lines and right angles . Simulation of

			<ul style="list-style-type: none"> <li>. natural features</li> <li>. Geomorphology</li> <li>. Biomimicry</li> </ul>
	Natural patterns and process	<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> <li>. Sensory variability</li> <li>. Central focal point</li> <li>. Linked series and chains</li> <li>. Integration of parts to wholes</li> <li>. Dynamic balance and tension</li> </ul>
	Light and space	<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> <li>. Natural Light</li> <li>. Warm light</li> <li>. Light and shadows</li> <li>. Special variability</li> <li>. Special harmony</li> <li>. Inside-outside spaces</li> </ul>
	Evolved human-nature relationship	<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> <li>. Geographic connection to place</li> <li>. Historical connection to place</li> <li>. Ecological connection to the place</li> <li>. Cultural connection to the place</li> <li>. Indigenous materials</li> <li>. Integration of culture and ecology</li> <li>. Spirit of place</li> <li>. Landscape orientation</li> </ul>
	Place-based relationship	<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> <li>. Security and protection</li> <li>. Attraction and beauty</li> <li>. Exploration and discovery</li> </ul>
Applied eco-regenerative design theory through	Carbon Balancing (embodied and operational carbon)	-	<ul style="list-style-type: none"> <li>Notice</li> <li>-</li> </ul>
	Triple Net-Zero (energy, water, and waste)	<input checked="" type="checkbox"/>	-The suites were prefabricated off-site

			to minimize the impact during construction. -Using solar panels that produce around 40 percent of the camp's energy -while wastewater is collected and used for watering -food waste is used to produce biogas.
	Health and Wellness Design	-	-
	Resiliency	-	-
	Social Equity	<input checked="" type="checkbox"/>	collaboration between local and international craftsmen combining vernacular techniques with contemporary architecture,

Table 4.12: Wild Coast Tented Lodge design information

- Comprehensive information

Critical regionalism, biophilic design, and regenerative design all play a role in creating an experiential hotel at this hotel. This hotel's design theme is a fusion of nature, culture, and local materials, implying that it was created to live the experience of all tourism factors. The new conclusion is that there is no reason why local construction methods should not be used or integrated with modern methods. Shared facilities are built with teak shingles to mimic the local landscape and are designed to take the shape of stone scattered throughout the site. This hotel has the potential to inspire designers by combining design and construction and thinking about both at the same time. Designing

boarding units that could be built off-site and then placed in their final locations would aid in the reduction of solid waste.

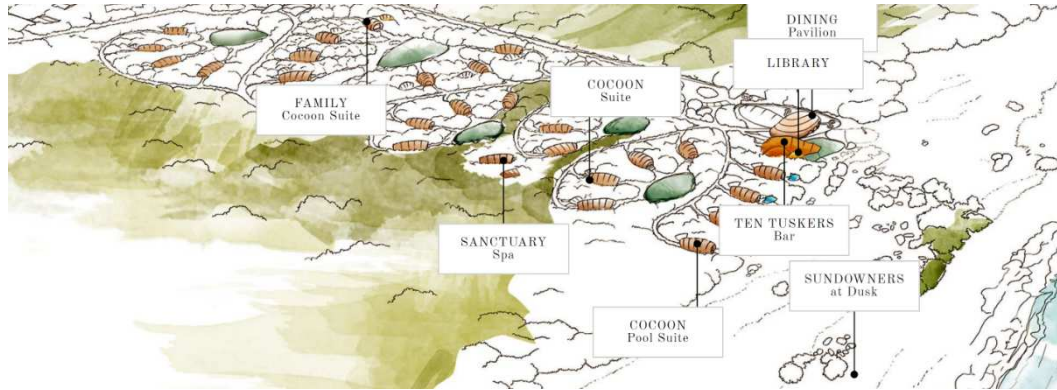


Figure 4.18: Wild Coast Tented Lodge Site Design (Luxury Hotels in Yala, Sri Lanka | Wild Coast Tented Lodge | Official Site, n.d.)

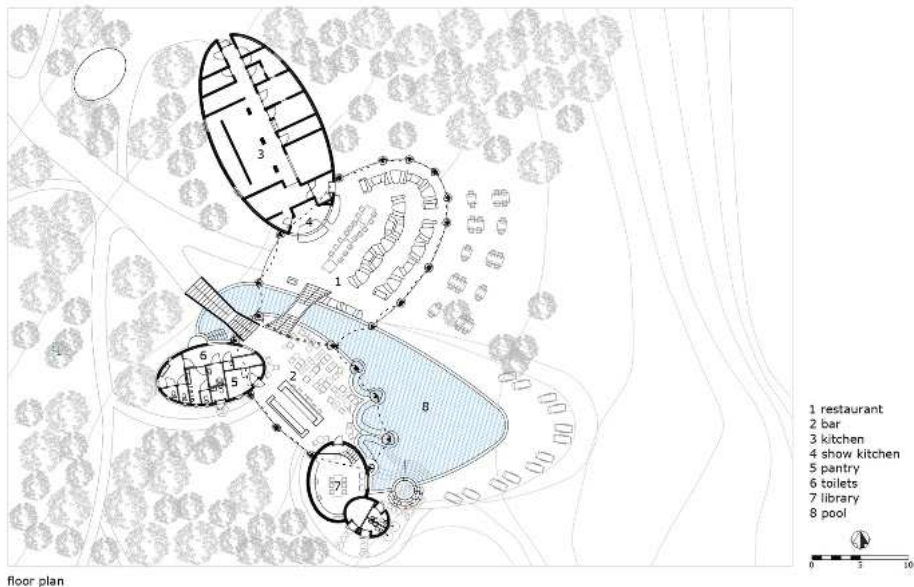


Figure 4.19: Wild Coast Tented Lodge Site Design Shared Facilities (Wild Coast Tented Lodge / Nomadic Resorts | ArchDaily, n.d.)



Figure 4.20: The Wild Coast Tented Lodge and Its Site Harmony(Wild Coast Tented Lodge / Nomadic Resorts | ArchDaily, n.d.)



*Figure 4.21: Wild Coast Tented Lodge Interior Design*(Wild Coast Tented Lodge / Nomadic Resorts | ArchDaily, *n.d.*)



## CHAPTER 5

### CONCLUSION/ DISCUSSION

Experiential hotels interact with a region's location, climate, environment, and culture. These hotel designs play an important role in directly or indirectly transmitting these interactions' experiences to tourists. The research focused on design approaches that convey the hotel's region's attributes by highlighting local cultures and environments in order to investigate the design role in this type of hotel. This study assesses selected case studies to examine the principles of critical regionalism, biophilic design, and regenerative design. The thesis concludes by identifying the criteria that will be used to assess the effectiveness of these principles.

#### **5.1 General Discussion**

While trying to find an answer to the first research question, i.e, “*What role do critical regionalism, biophilic design, and regenerative design play in the development of an experiential hotel and the advancement of sustainability goals?*” the findings show that these design approaches have different effects on enriching and celebrating the surroundings with their design:

1. First, it provides both direct and indirect exposure to the environment and the region.
2. Second, provides interior visual signs inspired by the hotel's surroundings while capturing the overall atmosphere of the region.
3. Third, ensuring the continuation of the life cycle and developing environmental systems.

Critical regionalism theory aims to preserve the topography of the region by adapting to nature and climate, preserving traditional urban fabric, and utilizing abundant natural light. It is built with regional materials and a skilled local labor force, and it employs construction techniques based on tectonic and detail evolution over time. Experiential hotels elevate design to an art form rather than meeting the needs of being functionally acceptable forms when they use design principles rooted in critical regionalism. Even if critical regionalism gives experiential hotels a sense of place based on their location and cultural heritage, it opposes overuse of these elements as nostalgic design elements or postmodern decor, allowing them to function and grow without losing their identity or appearing shoddy. Finally, critical regionalism aims to provide a normative visual experience by addressing the tactile range of human perceptions through reading the natural environment. Rather than relying solely on the sense of sight, experiential design incorporates the intensity of light, darkness, heat, cold, humidity, the aroma of natural materials, and the echoing resonance of our footsteps into the design. All of these elements can help to provide a direct experience of a region's natural and cultural environment.

By focusing on the dramatic feel of the space, the biophilic design provides visual signs and clues relating the interior to its context. Wide public windows, open spaces, arenas, public open halls, expansive balconies, or verandas provide an endless visual extension to the surrounding nature and uninterrupted natural light. Biophilic design aims to convey the general atmosphere of nature surrounding the building by incorporating local materials, shapes, or landmarks. The findings revealed that biophilic design plays an

important role in the design of the themed hotel because it incorporates elements of the outdoors into the interior. To provide a more indirect feel of its surroundings, biophilic design relies on shapes and forms inspired by the natural environment. Finally, biophilic design can be used in a variety of settings and does not conflict with the concept of luxury. Finally, regenerative design aims to conserve hotel resources while also reducing carbon footprint and CO2 emissions through the creation of a design system. To ensure a continuous life cycle, this system makes use of local materials that grow or decompose quickly. The development of an environmental system will be aided by using old and local construction methods or combining them with new ones. The regenerative design also takes care of the process of contracting a design rather than just its design. It also makes use of biodegradable materials to ensure that locations remain interesting to explore for hundreds of years.

## **5.2 Key Recommendation**

While addressing the second research question i.e. *“What design principles contribute to making hotels more experiential”* this thesis worked on setting guidelines by analyzing case studies of hotels looking at the elements and attributes of the three design approaches to gain an understanding of the design principles able to provide an environmental and cultural experience to tourists.

Key recommendation is as follows:

Experiential hotels need to be more attentive and integrate the region's natural environment, culture, history, and landmarks. These hotels can provide tourists with the environmental and cultural experience without compromising resources, helping and

ensuring they are renewable. In order to accomplish these demands, the collective case study shows that the application of critical regionalism, biophilic design, and regenerative design cannot cover these demands by themselves. However, combining all of them is the most successful approach to designing hospitality buildings.

The reasoning for this includes:

- First, offering design principles to help enhance designing experiential hotels to cover environmental and cultural designs; combining these three design approaches will ensure a comprehensive and balanced approach.
- Secondly, combining the three design approaches will provide flexibility to design experiential hotels regarding sites, topography, climate, hotel size, hotel occupancy, and different hospitality services offered.
- Thirdly, integrating these three design approaches in experiential hotels will help cover the three sustainability pillars and remedy the harm that has resulted from years of conventional development.

Regarding how to apply the combination of critical regionalism, biophilic design, and regenerative design, key recommendations include:

- First, integrating the building with the topography contributes to decreasing the enormous stress on local land use and soil erosion, air and soil pollution, natural habitat loss, and pressure on endangered species.
- Second, conduct research and study the region and its regional design characteristics and attributes, underlying what I needed to complement and work with its geography, topography, climate, and population's needs and culture.

- Designers should consider engaging the tactile experiences without the exclusive use of sight by engaging a whole range of complementary sensory perceptions for a better experience, such as the intensity of light, darkness, heat, cold, humidity, the aroma of material, and footfall echoing.
- Designers and hotel owners should depend on local laborers and craftsmen, benefiting from their skills while promoting new techniques in accordance with the local culture, resources, and environment.
- Finally, taking into consideration the updated environmental problem and the attempt to prevent or close any new issues. Water conservation is one of the most challenging sustainability concerns, especially in the hotel industry. There is a need for water conservation, increasing integration into a design to fulfill biophilic design response without negatively impacting water usage. That might include incorporating water reuse and design approaches like native tree scaling and water-budget into the guest experience design. Further, the need for design thinking in experiential hotels is helpful to decrease the pressure that is often put on natural resources through over-consumption. Designing water-refilling stations in guest rooms will help reduce water waste and decrease the amount of CO<sup>2</sup> per month, absorbing the carbon footprint of the plastic water delivery truck.

### **5.3 Consideration for Future Studies**

This section includes a list of possible studies in this field that could be carried out using some of the findings.

- This study's sample size can be increased in a similar study.
- An investigation into whether certain aspects or characteristics of biophilia are more effective than others.
- A more practical investigation into why regenerative design hasn't worked in hospitality, including identifying barriers.
- A study similar to this one considers human rights as a third pillar for long-term sustainability.
- A study to see how mixed sustainability methods affect tourism destinations in other countries.
- A study on how the design of critical regionalism affects politics and refugees in particular.

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