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Biophilic Escapism: Designing The Hotel Mojave

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Biophilic Escapism

Designing The Hotel Mojave



MARK KUA
HD Studio | Spring 2022
Prof. Glenn NP Nowak

To my Mom, Andrew, and all my
Friends who believed in me along this
adventure...

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A special thanks to my project mentor:

Todd-Avery Lenahan
President & Chief Creative Officer, WYNN Design & Development

I would like to express my gratitude to Mr. Todd-Avery Lenahan for guiding me through my capstone project and providing his insights and feedback on the design of my project hotel and its features. Given his years of previous experience with Walt Disney Imagineering, paired with his many years of experience with Hospitality Design, Mr. Lenahan possesses an incomparable knack for creating places and spaces that are imaginative and immersive, transporting guests to another mindset that transcends typical everyday experiences. As with all Disney projects, the devotion to Storytelling is a critical aspect and a driving force to create unique experiences. With Mr. Lenahan's insights and advice, I believe I can utilize Storytelling to create a timeless place of elegance and relaxation that is rooted in biophilia. The following is a collection of research and design work that displays such principles...



Problem Statement

“Many places in urban destinations such as Las Vegas (and abroad) are lacking in natural elements, and therefore, are disconnected from nature.”



To introduce nature back into urban settings, we can look to:

Biophilia (bio·phil·ia): a hypothetical human tendency to interact or be closely associated with other forms of life in nature : a desire or tendency to commune with nature.

Escapism (es·cap·ism), noun: the tendency to seek distraction and relief from unpleasant realities, especially by seeking entertainment or engaging in fantasy.

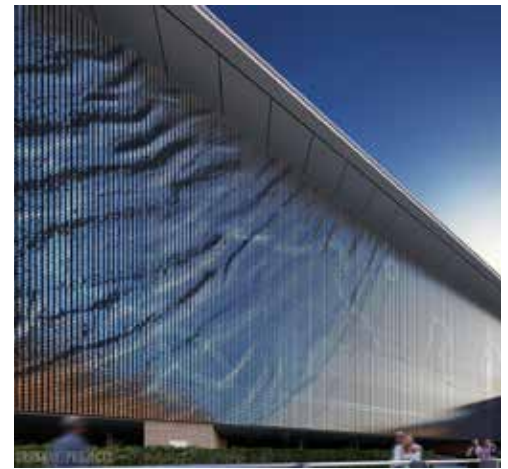
Why is Biophilia Important

According to a study from Human Spaces – “The Global Impact of Biophilic Design in the Workplace” - people in spaces with natural light and plant life are:

- Six percent more productive
- 15 percent more creative
- Report having 15 percent higher levels of well-being

By improving the human connection to nature, we can reduce ill health, improve productivity, and create spaces and environments that are more comfortable and appealing.

Tying this to hospitality, we can utilize natural materials with a strong connection to nature; incorporate biophilic focal points; utilize plant life and water features deliberately and thoughtfully; create clear sightlines to natural worlds outside; and bring uncommon outdoor elements indoors.



The 14 Patterns of Biophilic Design

Nature in the Space Patterns

1. Visual Connection with Nature
2. Non-Visual Connection with Nature
3. Non-Rhythmic Sensory Stimuli
4. Thermal & Airflow Variability
5. Presence of Water
6. Dynamic & Diffuse Light
7. Connection with Natural Systems

Natural Analogues pattern

8. Biomorphic Forms & Patterns
9. Material Connection with Nature
10. Complexity & Order

Nature of the Space Patterns

11. Prospect
12. Refuge
13. Mystery
14. Risk/Peril









Learning From Disneyland

When executed with care and deliberate thought, themed environments can be imaginative and transportive and offer a something different from everyday life. There is probably no better example of this than “The Happiest Place on Earth” – Disneyland.

Here, visitors spend an entire day in uniquely themed lands in which almost every detail is deliberate and planned meticulously to envelop visitors in an immersive environment.

The concept proved successful, and soon Walt Disney’s vision spread across the globe through five other parks in Florida, Tokyo, Paris, Hong Kong, and Shanghai.

The use of “Escapism” in design would not remain at just the Happiest Place on Earth. It would later prove to be quite useful decades later in the “Adult’s Disneyland,” that being Las Vegas.



Evangelist Billy Graham once told Walt that Disneyland was “a nice fantasy.” This did not sit well with Walt. He replied, “You know the fantasy isn’t here. This is very real... the Park is reality. The people are natural here; they’re having a good time; they’re communicating. This is what people really are. The fantasy is – out there, outside the gates of Disneyland, where people have hatreds and people have prejudices. It’s not really real!”

“When somebody suggested the only reason people go to Disneyland was escapism, Disney Legend John Hench took offense and disagreed. He said, “There was never a Main Street like this. But it reminds you of some things about yourself.” He added, “What we are selling is not escapism, but reassurance.” A visit to Disneyland reassures us that things will be okay. Here, everything works, places can be clean, people can be nice, and the pace of the world feels right. Imagineers Marty Sklar and John Hench have described the urban design for Disneyland as the “Architecture of Reassurance.”



“Hench said that Disneyland, “Tried to present an undiluted rosy view of the world; contradiction or confusion were qualities the planners of Disneyland associated with the defective, poorly planned, conventional amusement park.” He added that “Disneyland offered an enriched version of the real world, but not an escapist or an unreal version. We program out all the negative, unwanted elements and program in the positive elements. We’ve taken and purified the statement so it says what it was intended to.”



Make no mistake. The spaces within the park are not representative of reality but become a hyper reality – stylized and tightly edited versions of the real thing. The buildings are shrunk and edited to meet the needs of the story that binds everything together.

Las Vegas: Disneyland for Grownups

Themed architecture of the 1990s in Las Vegas relied upon themes that culled design cues from other places around the world. Each new property that popped up along the Strip had a unique theme that transported guests and visitors to the feeling of another locale. This was the height of escapism in hospitality design.

From a design standpoint, the use of escapism was and still is a great ploy for themed resorts. However, critical observers have often criticized escapist environments for being mere Pollyanna fluff and that such environments are inauthentic and feel contrived.

Certainly, the concept of escapism from a design standpoint has worked well for Las Vegas during the megaresort boom of the 1990s; it provided some of the most iconic destination resorts that Las Vegas is famous for, from The Mirage down to Bellagio, Paris, and The Venetian.





THE MIRAGE

THE MIRAGE



Each property was a destination unto itself, and it became a fun activity for tourists to simply hop from one casino to another throughout their visit. Of course, it goes without saying that visitors knew that they were not seeing the real Eiffel Tower or the Statue of Liberty. The sights were all fake, but Las Vegas reveled in its fakery.

Despite being filled with replicas of other sights and places, the obvious fakery and kitsch was a draw for people from all over the world.

Fakery and kitsch paired with a good time in the desert became Las Vegas' calling card, and people came in droves to see it in all its glory.

However, in a contrast to the fakery that has made Las Vegas a destination, what if we were to create a place that takes its inspiration from its natural surroundings? What if a hotel was themed after the desert in which it resides? How can we create a hotel that is not an escape from the desert, but an escape within the desert?

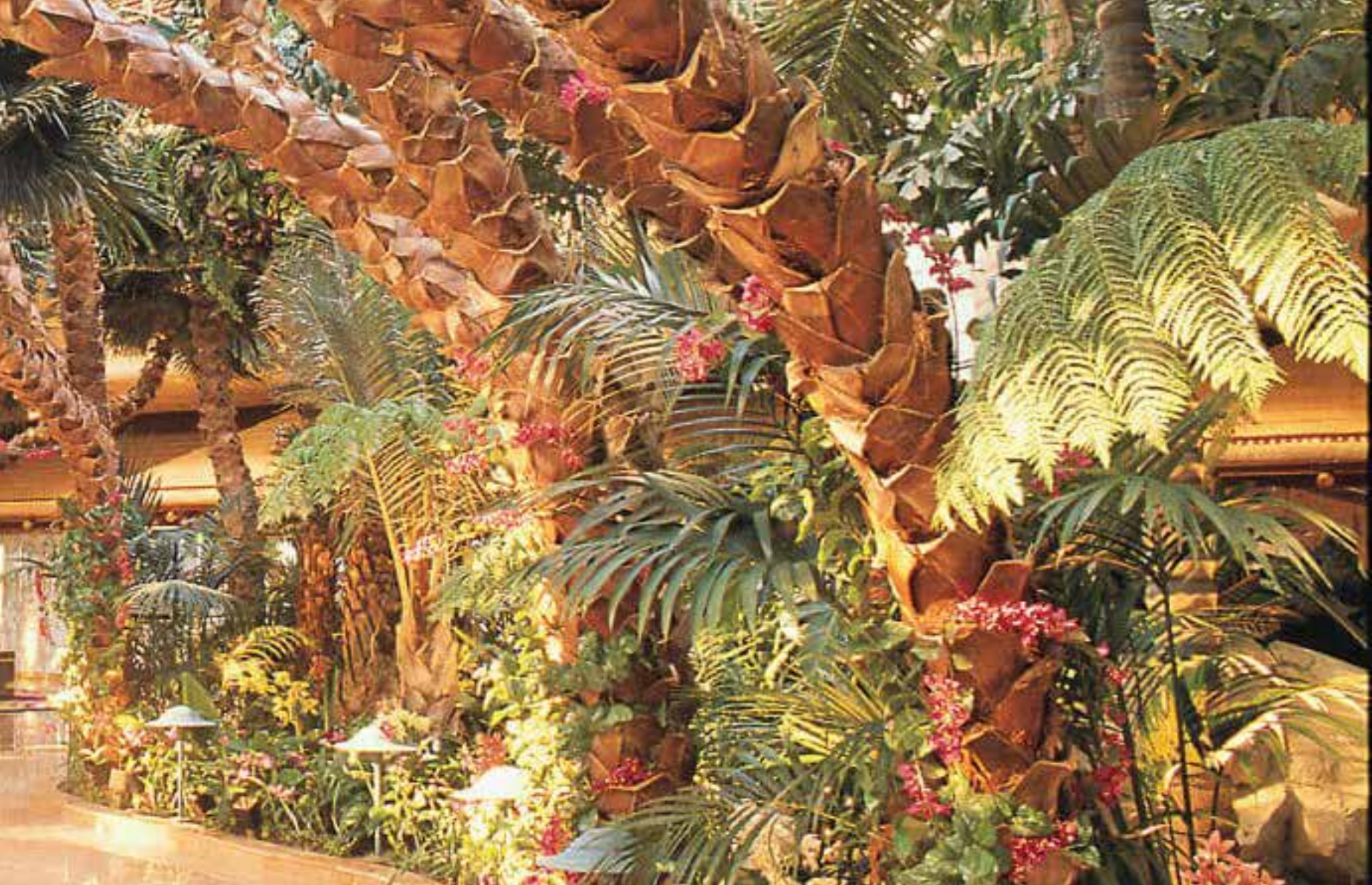
In pursuing a new design language for a hotel in Las Vegas and abroad, we can utilize biophilic principles to inform the spaces, the materials, and various aspects of the hotel to create a place that enlivens the senses and reconnects guests to the desert surroundings.

The concepts of Biophilia and Escapism are unrelated, however, that is not to say that the two cannot be paired to create an appealing environment that is interesting, healthy, and intuitive.





“When biophilic design is brought into traditionally escapist environments, it might bring an overwhelming sense of presence... of being deeply (re)connected to a living place and to a more holistic view of reality.”



The Mirage Atrium, 1989

Research Question:

How can we use biophilic principles to create an imaginative transportive environment that is healthier and more intuitive to guests and worker needs, while remaining appealing to consumers?





Hypothesis:

“In striking a balance between biophilic design and wellness, we may develop a new archetype for the Las Vegas experience that is pleasing to guests, while also beneficial to the profitability of resort operations.”





Design Study

Examine and study precedents that have successfully applied biophilic principles. What is successful about these projects? How can the successful aspects of these projects be applied to my project? What can be improved upon?

Examine and study precedents that have successfully applied escapist design ideas? What applications were successful? What applications were unsuccessful? What can be improved?

How can we merge biophilic design principles with an escapist aesthetic to create a non-contrived environment that is imaginative and transportive, while also healthy and intuitive for inhabitants.

Case Studies

In Biophilia & Theming



The following examples are spread across the globe. They are each unique, yet tied together through either biophilic design principles or escapist design ideals. They cover a time space between 1989 to as recently as 2019. They incorporate greenery, water features, natural light, or theming in unique and innovative ways. Some of the following examples strive to greater utilize plant life in urban or unexpected settings, while other environments seek to transport guests and visitors to a feeling of another place or locale. Regardless of the objective, these places have demonstrated exemplary work in design and are leaders in their respective fields.



Bosco Verticale

Location: Milan, Italy

Architect/Designer: Boeri Studio

Completed: 2014

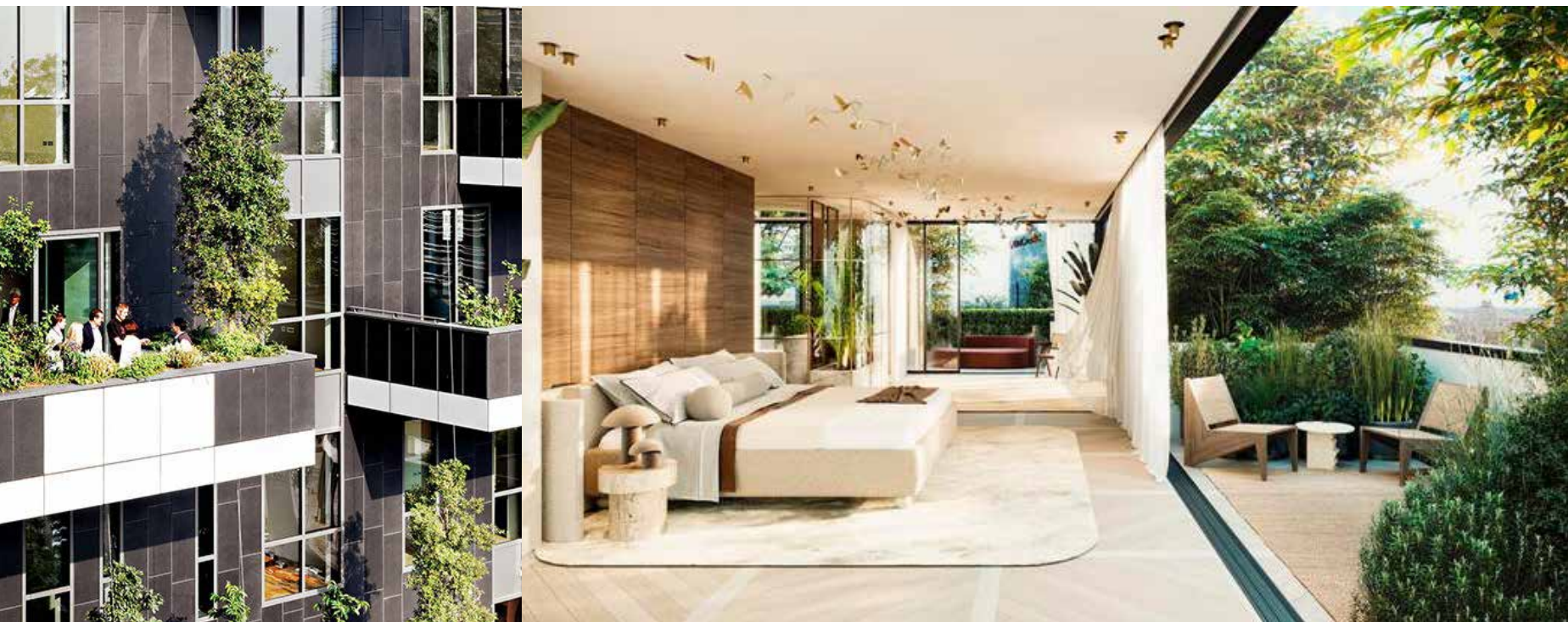
Use: Residential, Mixed Use

Main Takeaway: Integrating Architecture and Landscaping together.



Bosco Verticale is a high rise residential project in Milan, Italy that consists of two towers in the Porto Nuovo District. Designed by Boeri Studio, the project was inspired by the 1957 novel *The Baron in the Tree* by Italo Calvino, in which the protagonist eschews a normal life on the ground for a life in the tree canopies. The two residential towers that comprise Bosco Verticale collectively house 400 condominium units set amid a vertical forest of over 900 trees, as well as 5,000 shrubs and 11,000 perennials. These towers help densely packed urban areas by providing housing in a vertical setting, while also providing greenery and improving air quality. The use of plant life proved to be the most effective and efficient way to improve air quality in an urban setting such as Milan. By utilizing trees and a menagerie of other plant life, the two buildings can remove up to 44,000 pounds of carbon dioxide each year, while also removing other microparticles and adding oxygen to the atmosphere. The extensive use of plant life also adds to the biodiversity of the city by providing refuge to birds and other animals. Through the extensive use of plant life in an urban environment, Bosco Verticale creates its own microclimate that does not reflect or magnify the sun's rays, but instead filters it, while also cleaning the air and producing oxygen.

As a design precedent, Bosco Vertical demonstrates the importance of merging landscaping with architectural built form as an integral feature tying the building to nature. By incorporating plant life in such a manner, Bosco Verticale allows its residents easy access to nature and greenery, while also cleaning the air and enhancing the biodiversity of the urban landscape.



The Jewel at Changi

Location: Singapore

Architect/Designer: Safdie Architects

Completed: 2019

Use: Entertainment, Retail

Main Takeaway: Incorporating plantlife in unexpected environments.



The Jewel at Changi is the centerpiece of Singapore's Changi International Airport, comprising retail, entertainment, and hospitality outlets, all set within an indoor forest setting. Designed by Moshe Safdie, the Neofuturistic glass structure is famous for its Shiseido Forest Valley and the Rain Vortex. Comprising over 3,000 trees and 60,000 shrubs spanning 120 species, the Jewel is one of the largest indoor gardens in Asia and is unique for its selection of plant life that is typically only found in high altitude settings. The centerpiece waterfall known as "Rain Vortex" was designed by Wet Design, the same company that created The Fountains of Bellagio and the Dubai Fountains. At 130 feet in height, Rain Vortex is the tallest indoor waterfall on Earth and fills the indoor forest with the sound of falling water.

The Jewel at Changi differentiates itself from other airports around the world for offering something typically not associated with an airport... a feeling of tranquility in a lush setting. A verdant forest of trees and flowering plant life certainly is not expected at an airport, but is totally appropriate for Singapore, being the "City in a Garden." Because of its unique amenities, Changi has been named the World's Best Airport by Skytrax for eight consecutive years.

As a design precedent, the Jewel at Changi also demonstrates the importance of indoor greenery and incorporating it in such a manner that is imaginative and transportive. The Jewel at Changi allows for a moment of reprieve in a typically hectic environment. The Jewel at Changi takes biophilic elements through its use of greenery, water, and sunlight to transport visitors to a place that feels far from a traditional airport. The sight and sound of water and plant life creates an energetic environment filled with kinetic elements, yet one that allows visitors to pause and breathe.



Morpheus Hotel

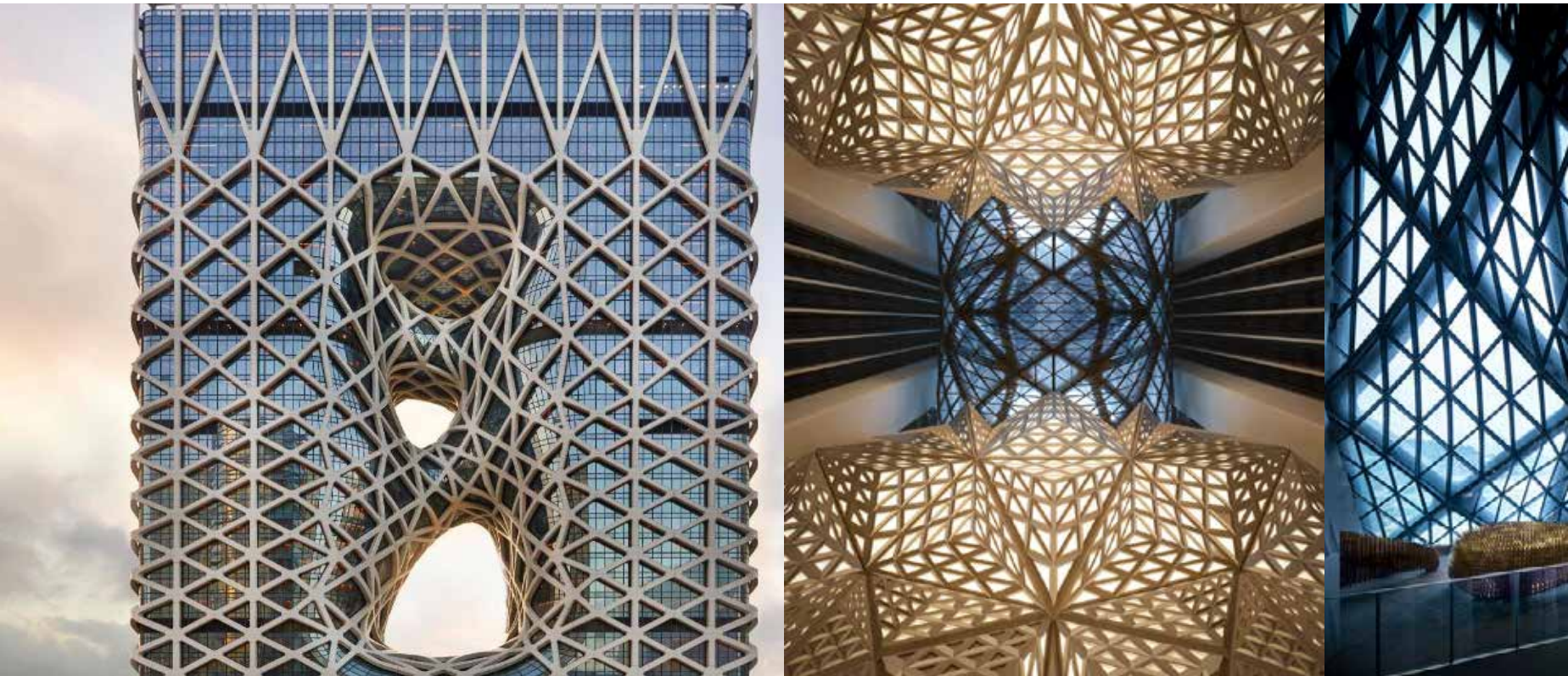
Location: Macau, China

Architect/Designer: Zaha Hadid Architects

Completed: 2018

Use: Hospitality / Gaming

Main Takeaway: Biophilia through amorphic shapes



Located in the City of Dreams complex in Macau, China, the Morpheus Hotel was one of the last projects headed by renowned architect Zaha Hadid. The Neo-Futuristic building makes use of the world's first free-form exoskeleton, which encapsulates forty floors of the glass towers, resembling a delicate Chinese jade carving. In referencing antique Chinese jade carvings, an organic form was created. Many of the lines are sinuous and add to the sensual nature of the architecture of this building. The fluidity of the shapes lends for interesting spaces in between the towers connected by multiple skybridge, which house restaurants, retail, and other entertainment options. The main lobby has soaring glass ceilings, drawing the eye upward. In utilizing the exoskeleton, it eliminated the need for a singular internal column in the interiors, which creates more layout flexibility and allows for as much natural light to fill in the rooms and interior spaces.

As a precedent, the Morpheus Hotel and the amorphic shapes found within the hotel tower create a visual spectacle that allows dappled natural light to flood many of the public spaces throughout the day. The use of dynamic and diffuse light, along with the unusual shapes and materiality, sets the mood of the spaces and building transforms as the day passes.



Marina Bay Sands

Location: Singapore

Architect/Designer: Safdie Architects

Completed: 2010

Use: Hospitality / Gaming

Main Takeaway: Making Non-Rhythmic Sensory Stimuli visible and turning it into art.



Famous for its unique design featuring three towers topped by a long skydeck, the Marina Bay Sands is an architectural masterpiece culled from the mind of Moshe Safdie. While most of the attention is drawn skyward towards the skydeck with its large infinity edge pool, the glass podium upon which the three towers rise from is just as interesting. Shielding the glass atrium from the harsh tropical sun is a kinetic art installation by artist Ned Kahn. Covering four vertical acres of glass along the Marina Bay Sands' lobby podium, the kinetic installation titled Wind Arbor is composed of a cable net structure and over half a million metallic hinged pieces. Aside from providing shade for the lobby interiors, this kinetic installation provides non-rhythmic sensory stimuli. Its movements are nonrepetitive and the wind patterns created are ephemeral. The beauty of Kahn's kinetic installation lies in its ability to visually capture the wind. As the wind traverses its facade, the metallic plates move and sway to reveal the patterns of wind. Movement spreads across the facade like undulating waves in a metallic sea.

As a precedent, the facade of the Marina Bay Sands demonstrates the beauty of Non-Rhythmic Sensory Stimuli. Ned Kahn's Wind Arbor installation beautifully translates wind patterns and makes it visible. The wind patterns are always in a constant state of change and transform the facade constantly. The undulating movements are never the same and add a layer of visual complexity to the building.



Central Garden at the Getty Center

Location: Los Angeles, CA

Architect/Designer: Robert Irwin

Completed: 1997

Use: Museum / Outdoor public space

Main Takeaway: Integration of Garden space and utilization of water for combating noise pollution.



Located on a hillside overlooking the 405 Freeway with Los Angeles in the distance, the gardens engage the site through the use of plantlife, water, and views, creating a rich tapestry. The main path through the gardens zigzags throughout the garden, crossing a stream and descends into a plaza where bougainvillea climb up umbrella-like structures, providing shade. As visitors wind their way through the gardens, the sound of water is present throughout the experience. At different moments, the sound of water is a soothing trickle, while at other moments, an intense rush as it cascades over a waterfall and into a meandering maze of vibrant azaleas. The beauty of the gardens as an art piece in itself among the other artwork that surrounds it is that it is always evolving and changing. The concept of change was certainly on Robert Irwin's mind when creating the garden. As a reminder of the constantly evolving nature of this living art piece, Irwin's statement, "Always changing, never twice the same'" is engraved in a stepping stone in the garden. Since its creation in 1997, Robert Irwin's Central Garden has indeed evolved and changed, as its plantlife has grown and more added to this rich tableau of plants.

As a design precedent, the Central Gardens at the Getty Center demonstrate the importance of open garden space and utilizing water to combat noise pollution. The paths that wind throughout the gardens pass over the stream at different levels of sound. The sound of water starts as a subtle trickle from the rear and eventually turns into a roaring waterfall further into the garden. The plant life also changes and becomes more visually rich and colorful as one gets deeper into the garden. All of these elements, through sound, sight, and smell create a transportive environment that is tranquil, all the while overlooking the city below in the distance.



Wynn Las Vegas

Location: Las Vegas, NV USA

Architect/Designer: Wynn Design & Development

Completed: 2005

Use: Hospitality / Gaming

Main Takeaway: Integration of biophilic principles within a whimsical, fantasy aesthetic



Wynn Las Vegas is a Forbes rated Five Star luxury resort named after its founder, Steve Wynn. Unlike many of its predecessors, the Wynn does not have a specific theme, but features a floral motif throughout the entire property. With a layout centered around strict classical Feng Shui principles, the motif of florals and butterflies found throughout complements the ancient Chinese principles. Plant life, flowers, water, and natural light are the unifying elements among many of the spaces throughout the resort. Whether entering directly from The Strip or through the main porte cochere, guests and visitors are welcomed with towering waterfalls, vibrant floral displays, museum quality art, and natural sunlight in many of the public spaces. Designing the Wynn around a floral motif marked a departure from traditional themes, which was the norm throughout the 1990s. Nevertheless, the Wynn holds its own among its predecessors and subtly ties biophilic principles into its design, even if biophilic design was not necessarily the end goal.

As a design precedent, Wynn Las Vegas merges the best of hospitality design with various biophilic design principles and Feng Shui principles, to create an environment that is stimulating and visually appealing. A floral motif is evident throughout the property and many of the spaces have access to natural light. While the main focus is on luxury and a feeling of excess, Wynn Design & Development has done a wonderful job at creating an environment that feels warm, whimsical, and luxurious, while also incorporating natural light in many spaces.



Parkroyal Collection Pickering

Location: Singapore

Architect/Designer: WOHA

Completed: 2013

Use: Hospitality

Main Takeaway: Integration of self-sustaining features - solar power, rainwater collection, water reclamation



In a city known for its gardens and greenery, the concept for the Parkroyal is a hotel within a garden. Certainly, one of the most recognizable features of this hotel is its garden terraces that are overflowing with plant life. As one approaches this property from the street, one is immediately taken by the sky garden terraces; it is the signature design feature of this hotel that permeates throughout. Bringing the outdoors in through the use of living green walls, natural light, and various water features is a major design personality trait of this hotel. To keep the sky gardens and plant life lively and vibrant, the latest sustainable technology was utilized, allowing for the gardens to use less energy and resources and be self-sustaining through the use of reclaimed water, rainwater harvesting, motion sensors, and solar cells.

As a design precedent, the Parkroyal sets an example for how to integrate self-sustaining features in a hotel. As technology improves and becomes more readily available, all designers should strive to incorporate as many green self-sustaining features as possible.



The Mirage

Location: Las Vegas, NV, USA

Architect/Designer: Atlandia Design

Completed: 1989

Use: Hospitality / Gaming

Main Takeaway: Integration of escapist concepts through innovative theming can be a smart business play.



The first integrated megaresort on the Las Vegas Strip, The Mirage spurred a new era of growth and evolution in resort and hospitality design when it opened in 1989. When then CEO of Mirage Resorts, Steve Wynn, announced the project, many critics had predicted failure given its size and expense. At a cost of over \$600 million, nothing of this scale had previously been attempted; it was the world's largest and most expensive hotel. To fund the construction of The Mirage, Steve Wynn looked to Wall Street and utilized Junk Bonds through financier Michael Milken. The Mirage opened on November 22, 1989 to much fanfare; crowds rushed the entrance and were welcomed with cascading waterfalls, a tropical atrium with exotic plant life, exotic animals, and a roaring volcano in the front lagoon in the evening.

At the time, The Mirage was unlike anything else Las Vegas had ever seen before. It successfully combined gaming, entertainment, and a large luxury hotel all under one roof. However, setting it apart from all its competitors was its thorough theming. Wynn knew it would take more than just scale to set the first fully integrated resort apart. He relied upon escapism and drew people in with the idea of escaping to another locale that was anything but the Mojave desert. The Mirage was a literal oasis in the desert. Its theming was comprehensive and it resonated with the public psyche of wanting a getaway from the ordinary. It was so successful that it managed to pay its loan off in a mere 13 months, completely bucking any naysayers. To this day, The Mirage still remains a classic Las Vegas hotel and has set a precedent for the resorts that follow in its wake.



Bellagio

Location: Las Vegas, NV, USA

Architect/Designer: Atlandia

Completed: 1998

Use: Hospitality / Gaming

Main Takeaway: Integration of biophilic principles and Feng Shui principles can be timeless and elegant.



As The Mirage set a new precedent for theming and scale in a Las Vegas megaresort, Bellagio elevated the luxury experience on a large scale. Like its predecessor, Wynn sought to create an environment that was better than what was already around, while also elevating the experience of a typical visit to Las Vegas. Taking its inspiration from its northern Italian namesake, Bellagio is an elegant lake fronted resort escape with dancing fountains, indoor gardens, epicurean delights, displays of fine art, and high end fashion. Like its predecessor sister, Wynn set a new precedent for luxury on a large scale with Bellagio, creating what was the world's most expensive hotel at the time at a cost of \$1.6 billion.

As a design precedent, theming is integral to Bellagio's success, just as it was for The Mirage. Bellagio captivates you with its dazzling fountain displays out front and draws visitors inside with its whimsical floral displays in The Conservatory and its grand display art, either in its lobby or throughout. Bellagio's overall design is dependent upon a collection of timeless qualities and features... Its elegance is universal and it is easily recognizable as one of the most iconic hotels anywhere on Earth. Combining timeless elegance with a high end luxury experience, Bellagio has become a venerable Las Vegas institution through its seamless integration of its northern Italian theming paired with all its attractions and amenities.



Burj Al Arab

Location: Dubai, U.A.E.

Architect/Designer: WKK / Tom Wright

Completed: 1999

Use: Hospitality

Main Takeaway: Creating an architectural icon from a cultural icon (Dhow Sail)



Famed for being “The World’s Most Luxurious Hotel”, the Burj Al Arab is an ultra luxury sail shaped hotel in Dubai located on its own small private man-made island. When Sheikh Mohammed bin Rashid Al Maktoum approached Tom Wright of WKK Architects, he had one simple request: “Build me an Icon.” It was a simple request, with a complicated twist. In searching for an inspiration reference in a seafaring nation, Wright looked to the Arabic dhow sail. As a symbol of Dubai, the dhow sail inspired the form of the building, becoming an iconic figure in its own right

Although there is no obvious specific theme, the Burj Al Arab has a motif of celebrated extravagance. Its atrium soars 590 feet and the balconies overlooking this space resemble the colors of the spectrum. Back on the lobby level, water features dominate the space, allowing the sound of water to permeate throughout the space. Deep blues and bright golds dominate the public spaces of the hotel. Adding to the feeling of extravagance, many of the surfaces that look like gold are actually covered in real 22 karat gold leaf. The spaces exude a sense of extravagance, but remain tasteful and refined.

As a design precedent, the Burj Al Arab has set the bar for iconic architecture becoming a destination unto itself. The sail shaped hotel structure is famed for being the world’s only “Seven Star” hotel (although no such distinction actually exists). It takes a familiar cultural icon (the dhow sail) and translates it into an iconic fantasy form that houses an escapist paradise within.



Atlantis Paradise Island

Location: Nasau, Bahamas

Architect/Designer: RAD Architecture

Completed: 1998

Use: Hospitality / Gaming

Main Takeaway: Escapist theming based on mythical story.



Themed after the mythical sunken city of Atlantis, The Atlantis Paradise Island is located in Nassau, Bahamas. With over 3,000 rooms, a casino, waterpark, and marine habitat, The Atlantis Paradise Island is the largest casino resort in The Bahamas. Unlike the previous aforementioned precedents, The Atlantis is not referencing a real actual place, but a mythical location. The design and architecture of the property incorporates a nautical motif that references the myth of Atlantis, through its use of various imagery and iconography derived from the sea. Shells, sea creatures, ocean plant life, and other sea life are integrated into the design throughout the property. Although the resort is already located near the ocean, the theme of Atlantis transports guests and visitors to another place and time.

As a design precedent, the Atlantis Paradise Island takes fantasy escapist design to another level within a beautiful location that is already an escape within itself. It takes familiar motifs from the sea, but applies it to match the story that is being told through built form.



Hard Rock Hotel

Location: Hollywood, FL, USA

Architect/Designer: Klai Juba Wald Architecture

Completed: 2019

Use: Hospitality / Gaming

Main Takeaway: Translating architecture from a well known brand symbol.



If a brand could be a theme, the Hard Rock Hotel in Hollywood, Florida embodies this concept. Instead of aiming to figuratively transport guests and visitors to another place or time, the Hard Rock seeks to bring the concept of music and celebrity to the forefront through its extensive collection of rock and rock memorabilia on display throughout the entire property. Of course, the biggest beacon of the Hard Rock brand is the actual hotel tower, which is in the shape of an actual guitar.

As a design precedent, the Seminole Hard Rock takes a brand icon and turns it into an architectural icon. As a piece of architecture, the guitar hotel serves its purpose as being a recognizable icon from miles away, but dually serves as an icon for the brand itself.



Paris (Tianducheng, China)

Location: Tianducheng

Architect/Designer: Guangsha Group (Developer)

Completed: 2009

Use: Mixed use

Main Takeaway: Phantom Urbanism - replicating another location to meet the needs of another population.

The romance and allure of Paris, France is something that many other places have tried to recreate and imitate for a number of years. From the casino hotels of Las Vegas to Macau, to other grand imitations around the world, no other places has tried to recreate a sizable swathe of Paris as an actual part of town quite like Tianducheng in the People's Republic of China. Developed as a grand housing estate in the Chinese countryside, Tianducheng is capable of housing up to 10,000 people. It features several buildings reminiscent of their Parisian counterparts and, as expected, also includes a replica of the Eiffel Tower, at one third the size of the original. However, Tianducheng has remained largely uninhabited, leading some to call it a ghost town. Originally planned to accommodate up to 10,000 people (in 2007), its occupancy was well below what was expected with only 2,000 people residing in the development by 2013. However, by 2017, the population had grown to approximately 30,000 residents.

Certainly, China is no stranger to imitating other cities or places and putting its own Chinese twist on its re-creation of another locale. However, it is a first for a town to imitate another place almost entirely. Paris and its sights have already been recreated in Macau, while other European sights have also been imitated throughout China.



Burj Al Babas

Location: Mudurnu, Turkey

Architect/Designer: Sarot Group (Developer)

Completed: Abandoned

Use: Residential

Main Takeaway: Escapist theming within a residential context.

Burj Al Babas is an abandoned residential complex near Mudurnu, Turkey consisting of 732 villas. Each of the residences were designed to resemble a French Chateau, culling elements from French and English architecture of the 18th and 19th centuries. The inspiration for the turrets, however, came from the Galata Tower in Istanbul. Construction started in 2014 and was initially successful with sales, with approximately half of the units sold in advance. Sales eventually stalled in 2018, causing the developer to file for bankruptcy. The site has since been abandoned, with only 587 units standing, but none completed.

While Burj Al Babas aimed to differentiate itself from other residential projects in Turkey, it took an escapist approach on steroids by simply constructing the same villa design repeatedly, row after row. Perhaps the developer sought to create a Disney-like environment, but the end result was anything but a fairytale. Instead, the unfinished Burj Al Babas development feels like a contrived knock-off of a community from the Stepford Wives. While this development had the potential to be a unique enclave of homes, treating each villa like a cookie cutter building makes the whole development feel like a mass produced. The repetitiveness and lack of individuality among all the villas shows a lack of thoughtful design and ultimately leaves a feeling of a soulless community.



Lessons From the case studies

Strive for Authenticity

What makes a place “authentic” or “unique”? Paris, Venice, New York, and ancient Rome can be imitated, but we already know it’s not real (and that is fine). However, how can we create a place or experience that feels “authentic”? First, we can look to the feeling and mood of the original locale. What are factors that contribute to that mood and feeling? What are the materials like? How do people interact with the places and spaces? How does it look throughout the day? Is it busier during one part of the day, versus other times? The list could go on. Otherwise, for something not imitating or aiming to recreate another locale, I believe that we simply need to look to a project’s surroundings for inspiration and translate what is around the project through form, material, and mood. What are the individual elements that contribute to the mood and feeling of the area? Do we want to accentuate or minimize this?

Provide escape from the Everyday Mundane

In a time when Las Vegas was mainly known for being a small getaway in the desert, Steve Wynn knew he had to differentiate The Mirage from what was already around. His solution to differ The Mirage from everything else was the use of Escapism. He tied all the property amenities and offerings together through an encompassing tropical Polynesian Paradise theme. Just like Disneyland, the experience starts the moment you walk in from the sidewalk to the main entrance. Its volcano was the main draw that caught your attention from the street; however once inside, guests were delighted with an otherworldly tropical paradise with gambling. For a time, it was unlike anything else in Las Vegas and transported the average Las Vegas to a feeling of a locale that was anything but the Mojave desert.

Strive for sustainability... Be considerate towards the surroundings and environment.

Common sense should dictate that sustainability is not a fad. As designers, we should all be striving to reduce our impact on the environment and leave as small of a footprint as possible. As technology improves, we have better means to power, cool, and irrigate the buildings we inhabit. Looking at the Parkroyal in Singapore, the architects and engineers devised ways for that building to be as close to sustaining itself as possible through its use of recycled water, rainwater recollection, and photovoltaics. Portions of the building are open and allow for cross ventilation, as well as natural light to flood the space. The garden terraces also make use of rainwater and recycled water, thus reducing reliance upon other water sources.

Seek to turn the ordinary into the extraordinary.

The Jewel at Changi offers a one of a kind experience that travelers and visitors typically would not have had during their time in an airport. Many major airports in most large cities now have retail and dining, as well as some entertainment options; however, Changi sets itself apart from other major airports by creating a spectacle through architecture. Typically, one would not expect a lush indoor forest with towering waterfalls at an airport, but the Jewel at Changi makes an atypical experience out of it. A visit to Changi Airport is well worth a visit, even if you don't have a flight; and if you are there for a flight, it's worth arriving early just to explore The Jewel and its offerings. Certainly, offering a unique airport experience has worked well for the city-state of Singapore; Changi has been named the world's best airport for a number of consecutive years, and The Jewel has certainly helped with elevating the airport experience from ordinary to extraordinary.

Make Landscape an integral part of the architecture, not just an accessory.

Bosco Verticale provides living spaces not only for humans, but for plant life and animal life, as well. In doing so, it enriches the biodiversity in urban environments and also creates a means to remove carbon dioxide from the atmosphere and clean the air we all breathe. Regardless of what level a unit is located on, each space has access to an outdoor balcony and views of trees, plant life, and the skies above. The trees and plant life also provide shade to the building during the summer, in effect, cooling it; while on the other hand, also allowing sunlight to warm the skin of the building in the winter when the trees lose their leaves.

Room for More

Case Studies in Accommodations

Bellagio Las Vegas

The Bellagio is the gold standard for luxury accommodations in Las Vegas. With a standard room at 510 square feet, the rooms at Bellagio are smaller than most properties to follow it, but it still has maintained its image of AAA Five Diamond luxury. Rooms feature views of either its iconic dancing fountains and the Las Vegas Strip, or the swimming pools and surrounding mountains, as well as the I-15 behind the property.



Wynn Las Vegas

As the latter cousin of the Bellagio, Wynn and Encore represent the next step in the evolution of hospitality design for Steve Wynn and Roger Thomas. Both properties have taken the successful aspects of Bellagio and improved upon them to create a deluxe luxury experience for guests. The standard room at Wynn comes in at 640 square feet, while the standard room at Encore is 745 square feet. All the rooms feature high ceilings and large windows with views of The Strip and Las Vegas Valley or the Wynn Golf Course to the rear of the property. Collectively, Wynn and Encore are the largest Forbes rated Five Star hotels on Earth.



The Venetian | The Palazzo

The Venetian is famous for being the first hotel on the Las Vegas Strip to introduce the concept of an “all-suite” hotel. The average room ranges in size from 650 square feet to 750 square feet. Most of the rooms feature a sunken living area separate from the sleeping area. The all-suite concept was a feature that differentiated The Venetian and its accommodations from its competitors back in 1999. The Palazzo continued this concept and added the room inventory, making The Venetian and The Palazzo combined one of the largest hotels on Earth.



Delano

Like the Venetian and The Palazzo, the Delano at Mandalay Bay is also an all-suite hotel. Built as a boutique sister hotel to its larger sibling, Mandalay Bay, Delano originally opened at THEhotel in December 2003 with 1,117 rooms. Unlike The Venetian's suites with sunken living areas, the standard suites at Delano are suites with completely separate living and sleeping areas. The rooms take their inspiration from the original Delano in Miami, with a whitewashed colorscheme, while the public areas downstairs take the Miami vibe of the original property with a Mojave twist. A number of design features reference its desert location, such as a large boulder near the entrance that guest can walk through, as well as a rug that features an image of the Colorado River and Lake Mead.



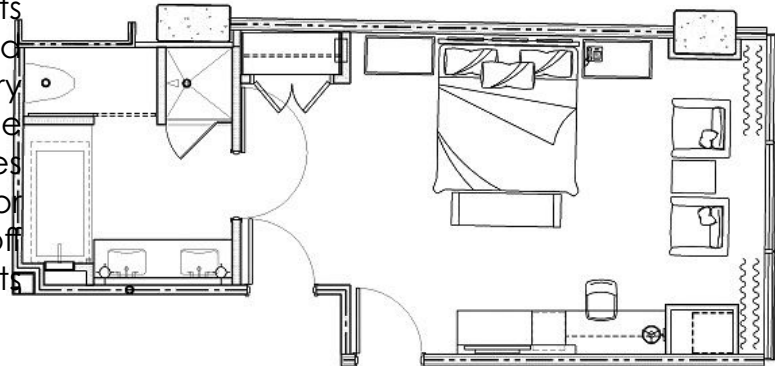
Waldorf Astoria

Originally opened as the Mandarin Oriental, the Waldorf Astoria features 392 rooms and suites. The hotel features a contemporary aesthetic, infused with Asian inspired touches. The lobby is located on the 23 floor, and features wonderful views of The Strip as a backdrop. With less than 400 rooms and no attached casino, it is a true boutique hotel within the City Center/ Aria Resort Campus. Its smaller size enables the staff to offer more personalized service. As such, the Waldorf Astoria has been awarded the Forbes Five Star Award for its hotel, spa, and restaurant.



Red Rock Casino

As the flagship property of Station Casinos, Red Rock features a decidedly more upscale, high-end feel compared to its sister properties throughout the Las Vegas Valley. Located in the heart of Summerlin, Red Rock features over 800 rooms and suites overlooking the nearby Red Rock Conservation Area or the Las Vegas skyline. The aesthetic of the resort takes its design inspirational cues from the neighboring Red Rock Canyon juxtaposed alongside a contemporary take on Mid-Century Modern architecture. The Desert Modern Aesthetic of a bygone era permeates throughout the property from the lobby and casino floor to all the accommodations. Despite being located off the Strip, it features enough amenities to compete with its Strip competitors.



The Cosmopolitan of Las Vegas

Centrally located on the Las Vegas Strip between Bellagio and Aria, the Cosmopolitan offers luxury accommodations and a unique collection of restaurants. Not being owned by an established casino operator already present in Las Vegas at the time of its opening in 2010, The Cosmopolitan had to differentiate itself through its offerings. Its accommodations offered stunning views of The Strip, with many rooms and suites featuring balconies looking down on The Strip. Compared to its neighboring properties, The Cosmopolitan was built with a vertical footprint, as it only had 8.5 acres to build on. With a relatively narrow plot of land to work with, its layout is compact, but makes efficient use of every squarefoot.



Design Takeaways

Las Vegas is known for its world class accommodations and these properties are some of the best that Las Vegas has to offer. Some of these properties are iconic in their own right and are famous the world over for their offerings. Certainly, each aforementioned property has an element of luxury that I would like to incorporate into my project. The Hotel Mojave that I am designing will feature a contemporary take on Desert Modern design that is driven by biophilic principles within the context of a boutique hotel located on the UNLV campus. I am envisioning a luxury hotel with approximately 100 spacious rooms and suites. The hotel will feature an expansive lobby area located atop the hotel tower with floor to ceiling windows overlooking the The Strip, as well as a lush pool deck and spa, offering respite from the high energy that Las Vegas is known for. The Hotel Mojave will also feature an intimate casino floor, as well as a fine dining restaurant, a casual sit down cafe, and additional quick service outlets. All these individual elements will be tied together under the umbrella of biophilic principles. Natural light, plantlife, materials, and other visual and aural cues will keep the design grounded in its location. The manner in which the materials are used is the key to assisting the design to take flight in imaginative ways.

What is Biophilia mean to you?

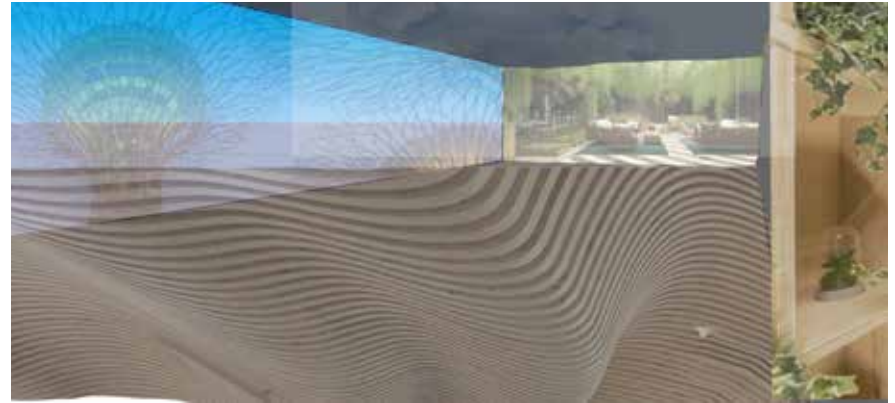
At its core, Biophilia pertains to people and their need to be connected to natural things and places. Maintaining such a connection to natural elements has a plethora of benefits for people. The main benefit of applying Biophilic principles lies in its healing properties and its ability to reduce stress levels in people. In such spaces where Biophilic principles are present, people are typically more productive, happier, and more at ease. While there are other possible stressors at play in people's day-to-day lives, if the environment in which they are in is thoughtfully designed to reduce stress, people will be better off. With a less stressful environment, people may have a better chance of living a healthier lifestyle.

Like most things in the world of design and other creative pursuits, every designer may have a different way of handling a project such as this and how biophilic principles are handled and applied. Although the execution may differ, they have the same endgoal in mind; that is, to create a pleasant environment absent of stressors through the thoughtful and intentional use of natural elements to enable users to live healthier and happier lives. The following are my peers take on biophilic design within a hospitality setting.

Biophilia envisioned by Andrew Wonnacott-Yahnke

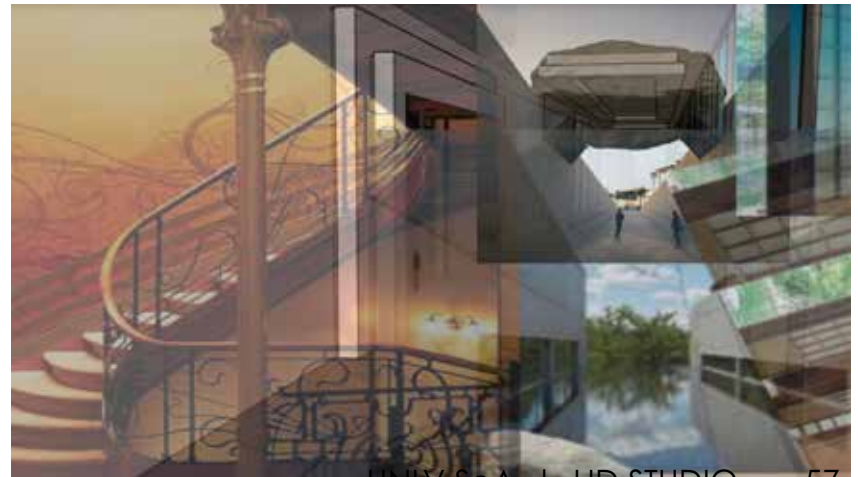


Biophilia envisioned by Jairo Fajarardo



Biophilic in architecture is the relationship that humans have with the living, with nature, an essential part of our lives in all aspects, where one of its objectives is visual relaxation, it helps with concentration and to be more creative, to create a friendly environment that promotes harmonious relationships between humans and nature.

In the desert, architecture assumes various responses, for example, mass as thermal insulation, exterior elements to control radiation and incidence on walls, ventilation systems, and solar protection.



Biophilia envisioned by AJ Miller

I am going to deviate from your program slightly to add additional thoughts that I think you will be able to better utilize. One of the reasons for this is that I think your project is looking at this more from an interior design perspective instead of an architectural solution. I think that an architectural solution would elevate this project more so than deciding on finishes etc.

It seems to me that because you are locating your building in the city, creating biophilic spaces needs to take a more internal approach. I think of Las Vegas, the city, as a bastion of civilization's excesses, not what I would consider anything close to being natural. As a result, I would consider turning views inward. I understand that the view is why you chose to have your building be single loaded, however this is going to severely limit you, and is unnecessary because the one direction you do have for views is mostly city anyways. Think about what people on the first 3 floors are going to see etc.

Casino's are a perfect example of turning inward because you will never find a window in a casino. The reason for this is because they do not want the guests to know what time it is, and also because they can create a space without outside interference.

If this were my project, and I really wanted to bring the desert environment inside this is how I would do it:

1. Desert themes are super popular with **spas** because they are relaxing and minimalist. I would lean into the spa as your major marketing point.
 - a. Intimacy is the name of the game with this space. Think slot canyon with the beams of light. Think far off rainstorms providing ambiance.
2. The nightclub is going to be another area you should focus on. These are spaces where you have significant flexibility in your design such that you can have a more interesting product.
 - a. Night Sky Nightclub - a giant planetarium which brings your eyes upwards. Vast open spaces and wild lighting make this a destination you will never forget.
 - b. Desert Den - Sand. Everywhere. Need I say more? I will. Sand dance floor with fire features surrounding a main stage. Circular layout. Drinks such as the Scorpion, or The Blaze.
3. The Oasis. A stream courses its way through your building and comes out in a waterfall to the pool area. Grasses and boulders define this area. Crystal clear waters to quench the heat of summer.

I could go on. You can see why I think this is a cool project. Focusing on a hallway is pretty antithetical to your goal. Think about where people spend their time and money, and put your time into those places. This way you are actually architecturally designing major features. We can always throw in those finishing touches like the carpet design or the type of plant. These decisions are made because of the major architectural decisions that are made first.

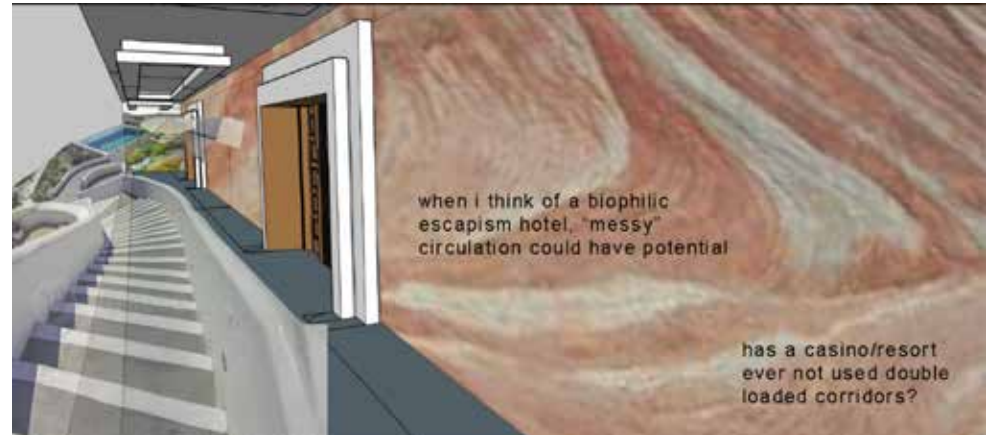
I hope this gets you reinvigorated and thinking about this project in a fun way. I could see that you were stuck on the hallway and room layouts. These are rather unimportant. I would even say completely unimportant for your project and if it were my project, I might leave them out entirely. I also wouldn't build the entire hotel. You do not have time for that. Focus on a few, or even one space and come up with different designs that would be environmentally focused,

while being exciting spaces to be in. Ultimately, you want to have a wow factor, so go big and have fun!

One thing that I keep thinking about when you give your presentation is that you can call anything biophilic if you explain it correctly. For example the wallpaper in your example project. I would not call that biophilic if I saw that, however you are able to call it biophilic because of the explanation behind it. What if you could create spaces that did not need to have their biophilia explained. Just like Disney world doesn't explain the magic, it creates it. Something to think about.

Let me know if you still want me to put pictures on drawings. I do not want to, and I think this was more impactful and took me more time lol.

Biophilia envisioned by Dillon Denig



Takeaways from Peers & Updated Hypothesis

After spending some time reviewing feedback from my peers, I believe the incorporation of natural elements through the materials and other visual, tactile, and olfactory cues will benefit my project. Prior to receiving feedback, I had advised my peers to think out of the box and to be a bit outlandish. A few of my peers also had some interesting takes on building circulation and how it may possibly hold some interesting design choices for my project. Other suggestions included references to desert life, alluding to the desert location, while others referenced biophilia through plant life and the usage of natural light. Another peer had an interesting take on the amenities and features to be offered, such as a slot canyon spa, a desert den bar with sand. Overall, I was happy to see what my peers came up with, and it was enlightening to see my project through their eyes.

With the feedback I have received from my peers and mentors, I am adjusting my hypothesis to incorporate what I have learned thus far. My new hypothesis follows below:

“In striking a balance between biophilic design and wellness, we may develop a new archetype for the Las Vegas experience that is pleasing to guests, while also beneficial to the profitability of resort operations.”

The new hypothesis is reflective of the incorporation of Biophilia with consideration towards design, the guest experience, and resort operations. In the coming weeks, I will continue to design my hotel and display my ideas through renderings of the accommodations and other public areas.



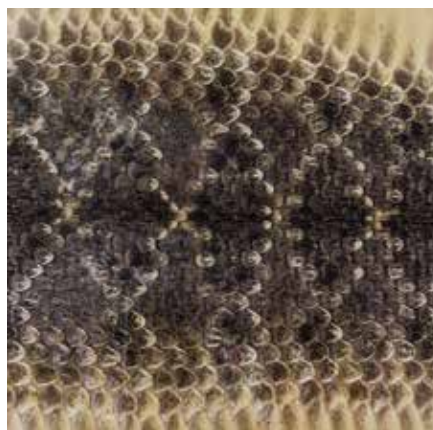


The Hotel Mojave

From the Desert it Rose...



Inspired by the Desert
Driven by Biophilia







the mojave

the mojave

Designing the mojave...



The Hotel Mojave

A hotel for Teaching & Learning on the campus of the University of Nevada Las Vegas

Las Vegas is famous for its hospitality industry, and it is the main economic driving force for southern Nevada. Likewise, the hospitality major is a mainstay at the University of Nevada Las Vegas. In 2018, UNLV unveiled its brand new Hospitality building housing the William F. Harrah building. Housing an auditorium, several classrooms, offices, and other features, it is a beautiful building and a great addition to the campus. However, UNLV lacks a hands-on learning facility for Hospitality. As the flagship major of UNLV, the campus deserves such a place for hands-on learning. The Hotel Mojave fulfills that need.

Designed as a compliment to the William F. Harrah Building, The Hotel Mojave is a Forbes rated luxury boutique hotel experience on the campus of UNLV. Featuring 100 rooms, student workers are trained to Forbes Five Star standards and deliver the high caliber of service. The Hotel Mojave is a non-traditional learning environment where the entire hotel is the “classroom.” In this environment, hospitality students will learn first hand how run and operate a hotel to the highest standards, while guests are offered a unique boutique experience that is personalized and tailored to their needs.



The Hotel Mojave: Site Information





The site for The Hotel Mojave is located on the western edge of the UNLV campus, just east of Harmon Avenue and University Center Drive. The site comprises the existing Intramural field, which is seven acres. Given its location on campus with its close proximity to The Strip, Harry Reid International Airport, and other campus features, this site is a prime location for a hotel. Its location offers some distance from the hustle and bustle of The Strip, while not too far away to be a part of the action. As such, this project will breathe new life into that area of campus and be an iconic beacon for the UNLV campus.







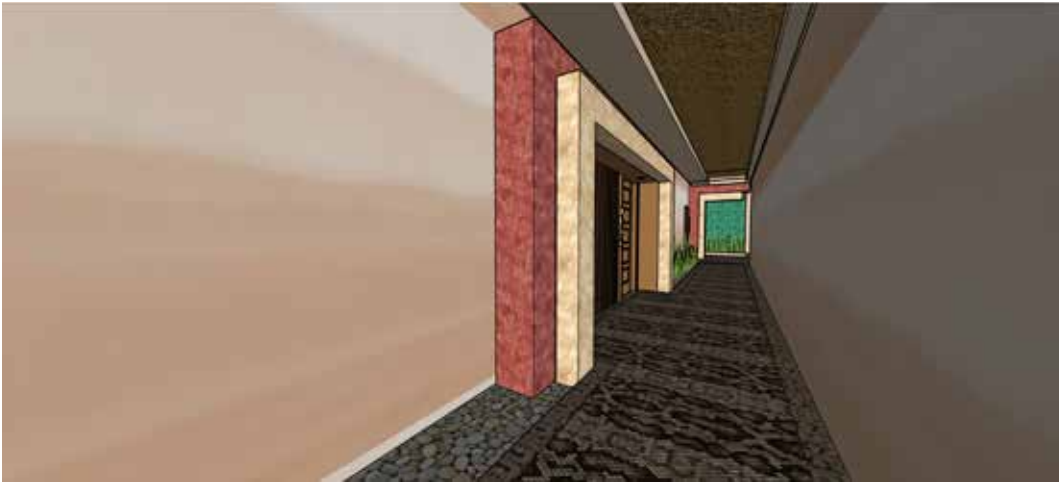
The Hotel Mojave





Room For More

The rooms at The Hotel Mojave designed to impart a more residential feeling than a standard hotel. At 800 square feet, the rooms at The Hotel Mojave are almost double the size of a typical Las Vegas hotel. The rooms take their inspiration from Las Vegas' desert surroundings. All the rooms feature natural wood and stone work and abundant natural light. Each room features a spacious spa-like bathrooms and open terraces views that allow guests to connect with the views that cannot be experienced in most other Las Vegas hotels.



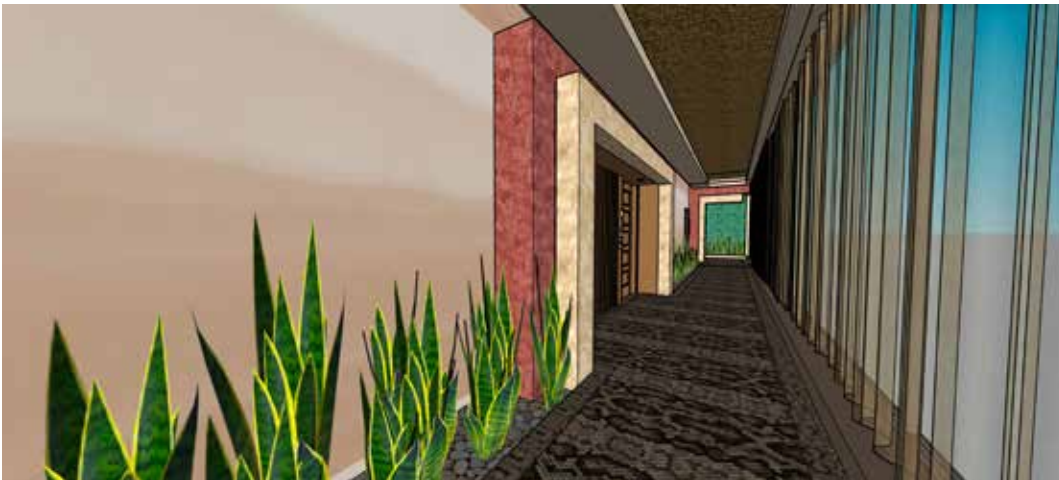
Option I: Layered Rocks

Option one features a standard corridor set-up that is typical in most existing Las Vegas hotels. Biophilic features include wall coverings inspired by stratification of rock layers at Red Rock Canyon and carpet patterns inspired by native wildlife.



Option II: Let There Be Light!

Option two adds large floor-to-ceiling windows, which allow natural light to flood the guest room corridors. This will aid with keeping guests' circadian rhythm in sync with their surroundings.



Option III: Desert Jungle

Option three utilizes all the features in the previous iterations and pushes the design further with the integration of plantlife. This option is the most biophilically complete with its references to nature, integration of plantlife, and utilization of natural light.

Its a (desert) jungle... in here.



Let's focus on the third option and combine all of the elements of the previous iterations. We will also add mullions that mimic the patterns of the rock layers and prisms in the glass that interact with the sunlight and cast prisms throughout the corridors that transform as the sun traverses across the desert sky. Natural daylight floods the corridor during daylight hours, aiding with keeping circadian rhythm more in balance. Natural materials present throughout, such as cut tree branches in the ceiling, bring nature into the space, while live greenery adds a connection to nature in a space that is typically devoid of plant life. The carpet pattern references native animal species and the wall patterns subtly reference the desert soil and rock formations.



Option I

Option one features extensive stone work that consists of native sandstone that is quarried just outside of Las Vegas and tiling of river rocks to stimulate guests' sense of touch.



Option II

Option two allows natural light to flood the space through the use of large windows near the wet area of the bathroom.



Option III

Option three integrates an intimate garden of desert plantlife with the natural light and stonework to create a biophilic spa-like bathroom experience that is unique to this hotel.

Let there be light! And Plants!



Let's push the third option and emphasize the presence of plantlife in this space along with the abundance of natural light. Allowing natural light in such a space as this allows for a greater sense of openness and a connection to the outdoors. Access to natural light will also allow users of the space to have a more balanced circadian rhythm, allowing them to feel more relaxed and at ease. The presence of live greenery also keeps guests connected to nature in an indoor space that is typically void of nature and life. Additionally, the addition of native sandstone lends a sense of natural warmth to the space and provides a grounding connection to the desert location, while the tumbled stonework flooring stimulates one's sense of touch.

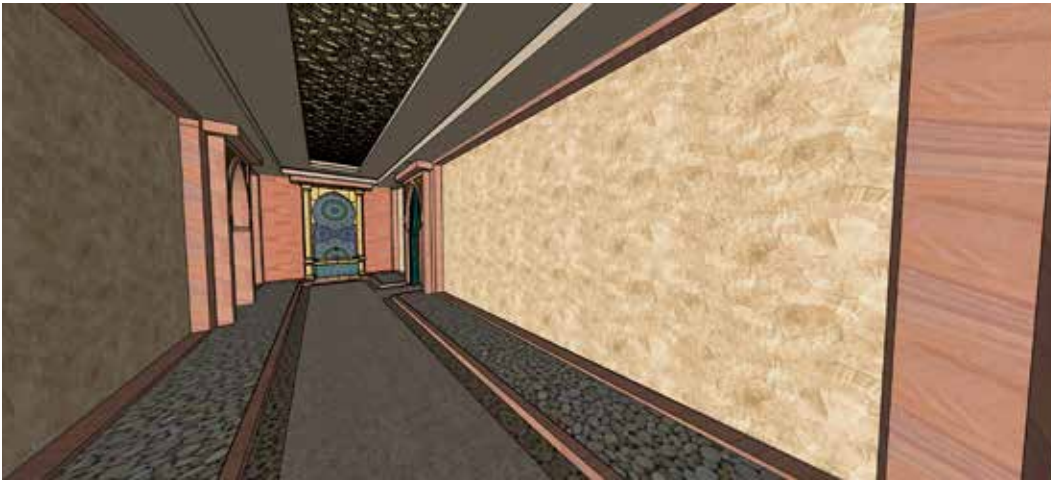
The Kasbah Spa at The Mojave.

The Kasbah Spa takes on a decidedly exotic and transportive approach to its design. Modeled after a Moroccan hammam, the various spaces of the spa stimulate the senses through sight, sound, touch, smell, and taste. The spaces within the spa are visually rich and layered with textures and materials, beckoning the senses to explore and linger. Guests are welcomed into the spa with a tea tasting and date hor' d'ourves grown on property. Native Aztec Sandstone provides a sense of warmth and is carved into exotic intricate lattice work. Water is present throughout the design, washing away the worries and stresses of everyday life. The sounds of trickling water and chimes fill the space, providing for tranquil background ambient sounds. Live greenery adds a sense of life to spaces and provides a connection to nature.

The spa is designed to uplift the spirit and transport guests mindset to another time and place. The presence of Biophilic principles creates of a more harmonious environment that lowers stress levels, while creating a lively, yet soothing environment that stimulates the senses. The sights, sounds, aromas, and textures all come together to create a spaces that is both grounding, yet uplifting.

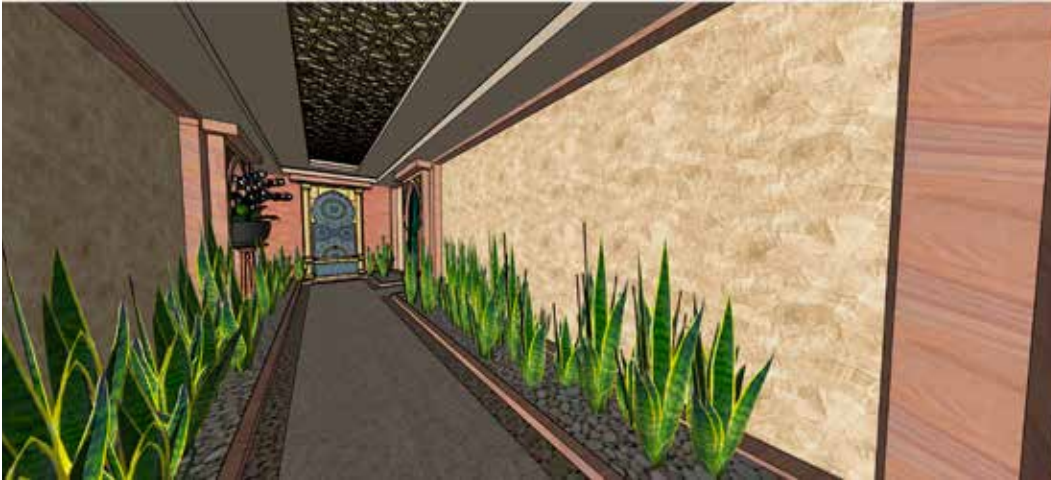






Option I

Option I is a standard, bare hallway. Not much Biophilia is present in this design.



Option II

Option II features the addition of plantlife and flowers to the hallway adds a touch of nature and life to the space. The snakeplant is also known to produce higher levels of oxygen than most other plants



Option III

Option III features a laticework of arabesque patterns carved from native Aztec Sandstone, which are based off of complex geometric floral patterns. The sandstone laticework is backlit from below, creating dynamic lighting effects and shadows on the ceiling.

Rock the Kasbah Spa...



The Spa Corridor is designed to be layered, visually rich, and stimulating to the senses. Like many of the other spaces throughout the hotel, plant life is present throughout the corridor and enriches the space with a touch of nature. The sandstone latticework also enlivens the space and adds another layer of visual drama of the space. The addition of the large vases overflowing with water provides aural stimulation with a soothing trickle of water, while also providing another layer of visual stimulation with additional lighting effects with upward lighting within the vases creates ripples on the ceiling, making for additional dynamic lighting effects. Stonework of small stones is heated and designed to be walked on with bare feet to stimulate one's sense of touch.

Treatment Rooms

The treatment rooms continue the application of biophilic principles found throughout the Spa corridors. Live greenery through the use of plant walls adds a connection to nature, while water features add aural stimulation and soothing sounds and non-rhythmic stimulation. Sandstone and river rock stonework provide a sense of warmth and stimulate touch. All of these combined elements contribute to a rich, yet relaxing atmosphere that is grounded in natural elements while also transportive to a relaxing state of mind.





The Hotel Mojave | Casino Floor



The casino floor at The Hotel Mojave takes its inspiration from the landscapes of Red Rock Canyon National Conservation Area, just west of the Las Vegas valley. The material palette of rammed earth, sandstone, and semi-precious green onyx all reference the natural beauty of the landscape found throughout the vistas and canyons found at Red Rock, while the colors and textures draw inspiration from the vegetation and animal life that inhabit the area, as well. The gaming floor is organized in such a manner to exude a sense of intimacy, through a semi-chambered layout. Columns of rammed earth and vibrant chartreuse silk curtains segment the different areas of the gaming floor and keep the gaming area from feeling too vast and cavernous. Real living plant life adds a natural connection to nature within an indoor space that is typically devoid of natural connections in most other existing casinos, while the carpet patterns and fabric textures recall desert animals and other living forms. Further emphasizing the connection to nature, the front north end of the casino floor opens to the outdoors, allowing the casino to be open to the outdoor park-like setting when the weather and temperature permits. The natural elements lend to a casino atmosphere that is relaxed and less jarring than that of a typical casino. Overall, all of the combined elements are intended to create an atmosphere that is timeless and elegant, while also rooted in Biophilia principles.



the 5 p's...

Prototype

I believe the prototype for this would be to actually apply this to a casino. Various aspects of themed escapist design have obviously been applied to casinos in Las Vegas and beyond. Likewise, various aspects of biophilic design may have also been incorporated into casino/hospitality design over the years, although probably not with biophilia in mind. I believe it would be worthwhile to pursue what I have researched and designed, for the sake of the betterment of casino and hospitality environments.

Publication

After the completion of the 2nd half of this studio, I could possibly tweak and make additional refinement to this body of research that I see fit and make further improvements to meet the demands of an ever changing hospitality industry. From there, I could possibly look into publishing this book. I do believe that there is merit in this research, as hotels, casinos, resorts, etc. could benefit from incorporating biophilic principles or immersive escapist theming. Casino environments generally are not thought of as being the most healthy environments. Although casinos are usually associated with smoking, drinking, addiction, etc., I do believe we can create healthier environments despite the stigma surrounding casino environments. Prior to the late 1980s, Bill Friedman's book, *Designing Casinos to Dominate the Competition* was the gold standard for casino/hospitality design in Las Vegas. With the opening of The Mirage, Roger Thomas bucked the trend and mostly did the opposite of what Friedman suggested... and proved wildly successful in doing so. Despite this, there really has not been a compiled written text of the design principles that guided Thomas and future designers. I believe I can incorporate what I have learned and research here and create that book.

Patent

I do not necessarily see a patent for biophilic design in general; however, I do believe that it has the potential to help hospitality design evolve to a better, elevated state that will improve the overall environment of hospitality. The application of biophilic principles creates for environments that are less jarring, leading to users who are less stressed. With a less stressful environment, users may live healthier lives. Although, the focus for this research is on hospitality hotel setting, the application of biophilia has potential in a broad range of environments and settings.

Partnership

The application of Biophilic principles has the potential to work in a professional partnership, depending on the work and aims to be achieved. Depending on the project, the application of biophilic principles has to the potential to work with various interior architecture and design firms, engineering firms, city and urban planning, product design, etc.

Professional Practice

I believe my research in Biophilic Escapism has real world potential in Las Vegas and beyond in different gaming and tourist based locations. Themed Escapist designed worked great for Las Vegas during the building boom of the 1990s. Despite being a bit kitschy, it was fun, attractive, and made people want to visit Las Vegas. Each hotel had character and humor, but it made going from one property to another fun. Recent casino resorts in Las Vegas today have lost a bit of that character, as many of them opt for themeless contemporary design. Some casinos have pulled off a modern aesthetic quite well. Red Rock pulls off a contemporary take on Mid-Century Desert Modern design quite well and appeals to many people (specifically locals). I believe that we can create a sort of renaissance in casino design by pairing escapist design ideals with biophilic design principles. In doing so, we can create environments that are imaginative and transportive, as well as healthy and intuitive to the needs of guests.

Closing Thoughts...

Overall, I would say this was an enjoyable project and an appropriate end to my graduate college studies. I have always had an interest in Hospitality Design since a young age and this was a wonderful opportunity to learn more about the intricacies and nuances of this design field, while also connecting with a number of the most talented and knowledgeable architects and designers in the field. A lot goes into designing a hotel, much less a mega resort that's well over 10 times the size of my capstone project. This experience has shown me how ambitious it is to tackle a large-scale hospitality project, and I am grateful for the guidance I received from Todd-Avery Lenahan, Joyce Orias, and other designers. With that being said, I also believe that Biophilia and its principles are important to creating places and spaces that are healthier and less stressful. By reducing stress levels in a space's users, we may enable people to live healthier lives. This holds especially true in hospitality design where we want people to feel as comfortable as possible and to create places and spaces that uplift people's mood and mindset.

Annotated Bibliography

Acres, J., Bergman, L., Brinkerhoff, D., Nelson, E., & Woogmaster, A. (2017). Emotional Architecture And Hospitality Design.

This source goes over the importance of emotion in casino and hospitality design, specifically within the context of Las Vegas. It goes over the psychology of spatial design and how it influences guests and consumer behavior. The discussion touches on how design can impact the guest experience and ultimately, resort operators' bottom line. It covers the examples such as Caesars Palace and The Mirage and how these designs changed Las Vegas and the industry as a whole, setting a precedent for hospitality on a large scale.

Anderton, F., Chase, J., & Collie, K. (1997). Las Vegas: A guide to recent architecture. Ellipsis.

This book covers the evolution of hotel and resort architecture in Las Vegas, from its humble beginnings as small roadside outposts in the 1940s and 1950s and how hotel design evolved into the themed megaresorts of the 1990s. This source visually shows how architecture evolved from simple western themes that were present in hotels like the old El Rancho and how it would grow and evolve with themes like Caesars Palace and eventually the birth of megaresort with The Mirage and the evolution of luxury with Bellagio.

Anderton, F., Collie, K., & Klatt, A. (1997). Las Vegas the success of excess ; architecture in context. Könemann.

This source visually documents the themed architecture of Las Vegas Megaresorts of the 1990s and how it has changed hospitality design on The Strip. It chronicles the debut of The Mirage and how it spurred changed leading up to the building boom on The Strip that created other themed mega resorts such as Excalibur, Luxor, New York New York, Paris, The Venetian, and the Bellagio, among others.

Berto, R., Barbiero, G., Barbiero, P., & Senes, G. (2018). An individual's connection to nature can affect perceived restorativeness of natural environments. some observations about biophilia. Behavioral Sciences, 8(3), 34. <https://doi.org/10.3390/bs8030034>

This writing goes over the importance of nature in peoples' lives and how the presence of nature can have a positive influence on space and users. Exposure to nature through natural daylight, plantlife, and other natural elements have all show to have a positive impact on people in what is known as "biophilia." By mindfully and intentionally applying biophilic principles, we can create environments that no only appeal to a large audience, but environments that are also healthier to be in.

Annotated Bibliography

Birkeland, J. (2002). *Design for sustainability : a sourcebook of integrated, eco-logical solutions*. Earthscan Publications Ltd.

This source covers various sustainable design methods to integrate into architecture and building. Design for sustainability presents numerous examples of integrated systems designs based on ecological principles and concepts culled from experts in the fields of industrial design; materials science; housing development; transportation and urban design; horticulture and landscape design; and energy and resource management. Birkeland introduces systems design thinking that cuts across academic and professional boundaries and the divide between social and physical sciences to move towards a transdisciplinary approach to environmental and social problem-solving.

Browning , W., Ryan, C., & Clancy, J. (2014). *14 PATTERNS OF BIOPHILIC DESIGN*. Terrapin Bright Green.

This source covers the 14 principles of Biophilic Design. These principles include visual connection with nature; non-visual connection with nature; non-rhythmic sensory stimuli; thermal and airflow variability; presence of water; dynamic and diffuse light; connection with natural systems; biomorphic forms & patterns; material connection with nature; complexity & order; prospect; refuge; mystery; and risk/peril. "This paper puts biophilic design in context with architectural history, health sciences and current architectural practices, and briefly touches on key implementation considerations, then presents biophilic design patterns." The patterns are discussed in a broad sense in order to address the universal issues of human health and wellbeing (stress, visual acuity, hormone balance, creativity) within the built environment instead of program-based or sector-specific space types.

Cunsolo, A., & Landman, K. (2017). *Mourning nature : hope at the heart of ecological loss and grief*. McGill-Queen's University Press.

This book about environmental and cultural studies covers the unprecedented environmental challenges, such as global climate change, large-scale industrial development, rapidly increasing species extinction, ocean acidification, and mass deforestation. In touching upon these subjects, the Cunsolo & Landman introduces new perspectives on conservation, sustainability, and our relationship with nature.

Edmonds, A. (2020). *Connecting people, place and design*. Intellect; Intellect, The University of Chicago Press.

This book is divided into three sections - namely: place, people, and participation - and dissects the human relationship with place, how its significance has evolved over time, and how contemporary systems for participation shape the places around us in our everyday lives. The readings examine people, place, and designs across the fields of architecture, designs, cultural studies, sociology, political science, and philosophy. The section on “place” focuses on the cultural, political, and philosophical shifts in our historical relationships to place. The section on “people” looks at migration and movement and how it affects place relations. Finally, the section on “participation” looks into forms of public engagement and cultural systems for collaborative contributions to the design and creation of place.

Franci, G., Zignani, F., & Gamez, J. L. S. (2005). *Dreaming of Italy: Las Vegas and the virtual Grand Tour*. University of Nevada Press.

This source covers the influence of Italian locales on the vernacular of Las Vegas resort architecture in the context of the “Grand Tour” of Italy. Namely, the resorts that this book references are Caesars Palace, the Bellagio, and the Venetian. It covers the influences of the respective regions of Italy such as Rome, Lombardy, and Venezia that influenced their Las Vegas counterparts. These hotels represent the best of resort design during the 1990s and how themes could prove to be a successful draw to attract people to a Las Vegas resort.

Grinde, B., & Patil, G. G. (2009). Biophilia: Does visual contact with nature impact on health and well-being? *International Journal of Environmental Research and Public Health*, 6(9), 2332–2343. <https://doi.org/10.3390/ijerph6092332>

This study delves into the topic of biophilia and its importance to our health and well-being. The presence of Biophilic elements is not only visually appealing, but creates a better overall environment for its users. Cities and indoor environments are dominated by man made things. The lack of a connection to nature and natural elements in an environment creates a discord. Biophilic principles ascertain that by maintaining a connection to nature through natural materials and visual cues, as well as the presence of natural light and plant life and other natural elements, the users’ environment will be healthier, therefore leading to happier, healthier, and more productive people.

Annotated Bibliography

Gunn, C. A. (1997). *Vacationscape : developing tourist areas* (3rd ed.). Taylor & Francis.

This book covers the essentials of creating appealing environments in the context of tourism and hospitality geared sight. In it, the book covers the positive and negative aspects of tourism, politics and ethics, supply & demand, attractions, destination development, and spatial patterns. It also looks into current topics such as environmental impact, sustainability, and ecotourism.

Hess, A., Venturi, R., Brown, D. S., & Izenour, S. (1993). *Viva Las Vegas: After-Hours Architecture*. Chronicle Books.

This book is a visual study hotel and resort architecture in Las Vegas from the 1940s up through the 1990s with the themed megaresorts and its influence on urbanism. In addition to the roadside hotels that dotted The Strip and Fremont, Alan Hess looks at Las Vegas as an extreme example of two American urban themes - those being the gridiron plan and the automobile strip. He also approaches Las Vegas from the context of architecture of color, decoration, signs, and symbols. "Las Vegas' contribution lies in exaggerating and intensifying the features of a strip."

Jaschke, K., & Ötsch, S. (2003). *Stripping Las Vegas: A contextual review of casino resort Architecture*. Universitätsverlag, Bauhaus-Universität Weimar.

This book looks into the history of Las Vegas resort design throughout the decades and breaks it down to its various components. The research also looks into the psychology of design and layout and how it has evolved over time and how it has been used to influence consumer spending in Las Vegas and resort design. It takes examples from Las Vegas' early days and covers various hotels like the Sahara leading up to the themed Megaresort era with places such as The Mirage and the Bellagio. He looks into various aspects such as sight, sound, smell, etc. and how it can be used to influence consumer behavior.

Judd, D. R., & Fainstein, S. S. (1999). *The tourist city*. Yale University Press.

This source culls upon experts from a variety of disciplines and investigates tourism and its impact on cities and urban environments. It looks into urban tourism and how urban tourism now plays a pivotal role in the economic development strategies of urban governments around the world. Various cities and tourist destinations that were examined in this research include Las Vegas, Orlando, New York City, Boston, Jerusalem, Prague, and Cancun (among others). Other sections of this book look into marketing, tourist perception, construction and infrastructure, and strategies for drawing tourists, including sports, riverboat gambling, and sex tourism in Southeast Asia.

Kellert, Wilson, Kellert, Stephen R, & Wilson, Edward O. (1993). *The Biophilia hypothesis*. Island Press.

In this book by Stephen Kellert, he examines the importance of nature and humans' need to remain connected to it. Like all living creatures, humans have an internal affinity for nature and lifelike processes. Creating environments based upon biological needs creates healthier and more appealing environments and encourages people to linger and explore. Places that apply these considerations into place typically hold their own in the public realm and appeal to the masses longer.

Littlewood, Jain, Howlett, Littlewood, John R., Jain, L. C., & Howlett, Robert J. (2021). *Emerging research in sustainable energy and buildings for a low-carbon future* (1st ed. 2021..). Springer.

This source goes over emerging forms of renewable energy for use in buildings and new construction that creates for more sustainable buildings and environments. The book contains 20 studies, which each describes the latest research investigation in the realm of sustainable building, renewable energy, and environmental infrastructure.

Macaulay, D. R., & McLennan, J. F. (2006). *The Ecological engineer*. Volume one, KEEN Engineering. Ecotone.

This book describes the most innovative engineers in North America and the practices and principles that they use to produce functionally outstanding structures, systems and technologies, in a way that embraces the emerging philosophy of sustainable design. Organized into three critical sections - Practice, Principles and Projects, the book provides a valuable resource and touchstone for engineers, architects and other design professionals who hope to embrace an ethic that is responsible to both people and the environment.

Moos, S. von, & Stierli, M. (2020). *Eyes that saw: Architecture after Las Vegas*. Scheidegger & Spiess.

This book presents a collection of stories and essays investigating the significance of the fieldwork that constituted the basis of Learning from Las Vegas from various perspectives. The essays also discuss the great architectural tome's unique position in a network of social, political, and intellectual forces. Contributors include architects, artists, and scholars, such as Stan Allen, Eve Blau, Beatriz Colomina, Valéry Didelon, Elizabeth Diller, Peter Fischli, Dan Graham, Neil Levine, Mary McLeod, Rafael Moneo, Stanislaus von Moos, Katherine Smith, Martino Stierli, Karin Theunissen, Robert Venturi, and Denise Scott Brown.

Annotated Bibliography

Poon, S. T. F. (2019). Reimagining the place and placelessness: heritage symbolism and hospitality architectural designs. *Place Branding and Public Diplomacy*, 15(4), 288–296. <https://doi.org/10.1057/s41254-019-00133-7>

This study looks into architectural vernacularism, place and placelessness, in the context of South Asian tourism. Architectural vernacularism, place and placelessness are concepts that have major influences on hospitality architecture design in Asia. The growth of the global travel economy has brought attention to issues of heritage authenticity of hospitality architecture, which relates to the branding of hotels and resorts through tourism marketing and promotion. Place and placelessness continue to challenge architects as the commercialisation of heritage and culture through hospitality design affects attitudinal response and the experiences they shape, mediate and construct. Architects are urged to recognise heritage symbolism and vernacular traditions, by conscientiously and respectfully acknowledging place meanings before constructing or incorporating them into place branding of hospitality architecture designs.

Snow, R., & EBSCOhost. (2019). *Disney's land : Walt Disney and the invention of the amusement park that changed the world (First Scribner edition..)*. Scribner.

This source goes over the history of Walt Disney and Imagineering and their influence on theme park design. It chronicles the history and creation of Disneyland during its formative years and how it came to be. Although widely considered to be one of the most successful enterprises of the 20th Century, it was initially considered to be one of the biggest gambles of all time. In chronicling the story, Robert Snow goes over Walt's vision to create a place for children and parents to enjoy time together to the realization of the "Happiest Place on Earth."

Venturi, R., Brown, D. S., Stadler, H., Stierli, M., & Fischli, P. (2008). *Las Vegas studio: Images from the archives of Robert Venturi and Denise Scott Brown*. Scheidegger und Spiess AG.

This source is a collection of the images of from Venturi, Brown, and Izenour's field research in Las Vegas that were used to illustrate their argument. Las Vegas Studio presents the images they took while in Las Vegas for the first time.

Venturi, R., Izenour, S., & Brown, S. D. (2006). Learning from Las Vegas: The Forgotten symbolism of architectural form. MIT Press.

Learning From Las Vegas is the quintessential book about Las Vegas and the influence of its vernacular architecture on modernism and urbanism. Documented by Robert Venturi, Denise Scott Brown, and Steven Izenour (along with nine architecture students and four planning and graphics) came to Las Vegas to study the urban form of The Strip and Las Vegas. Various parts that were studied included the commercial vernacular, lighting, patterns, styles, and symbolism in the architecture. Venturi and Scott Brown created a taxonomy for the forms, signs, and symbols they encountered. The two were inspired by the emphasis on sign and symbol they found on the Las Vegas strip. The result was a critique of Modern architecture, demonstrated most famously in the comparison between the “duck” and “decorated shed.” The “duck” represents a large part of modernist architecture, which was expressive in form and volume. In contrast, the “decorated shed” relies on imagery and sign.

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