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Healing Interior: Using Eastern Design Principles in Hotel Design

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H e a l i n g I n t e r i o r : Using Eastern Design Principles in Hotel Design

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Master of Fine Arts, Interior Environments

Virginia Commonwealth University, Richmond, Virginia

Healing Interior: Using Eastern Design Principles in Hotel Design

Thesis submitted to the faculty of the school of the Arts at Virginia Commonwealth University in partial fulfillment of the requirements for the degree of Master of Fine Arts in Design, Interior Environments.

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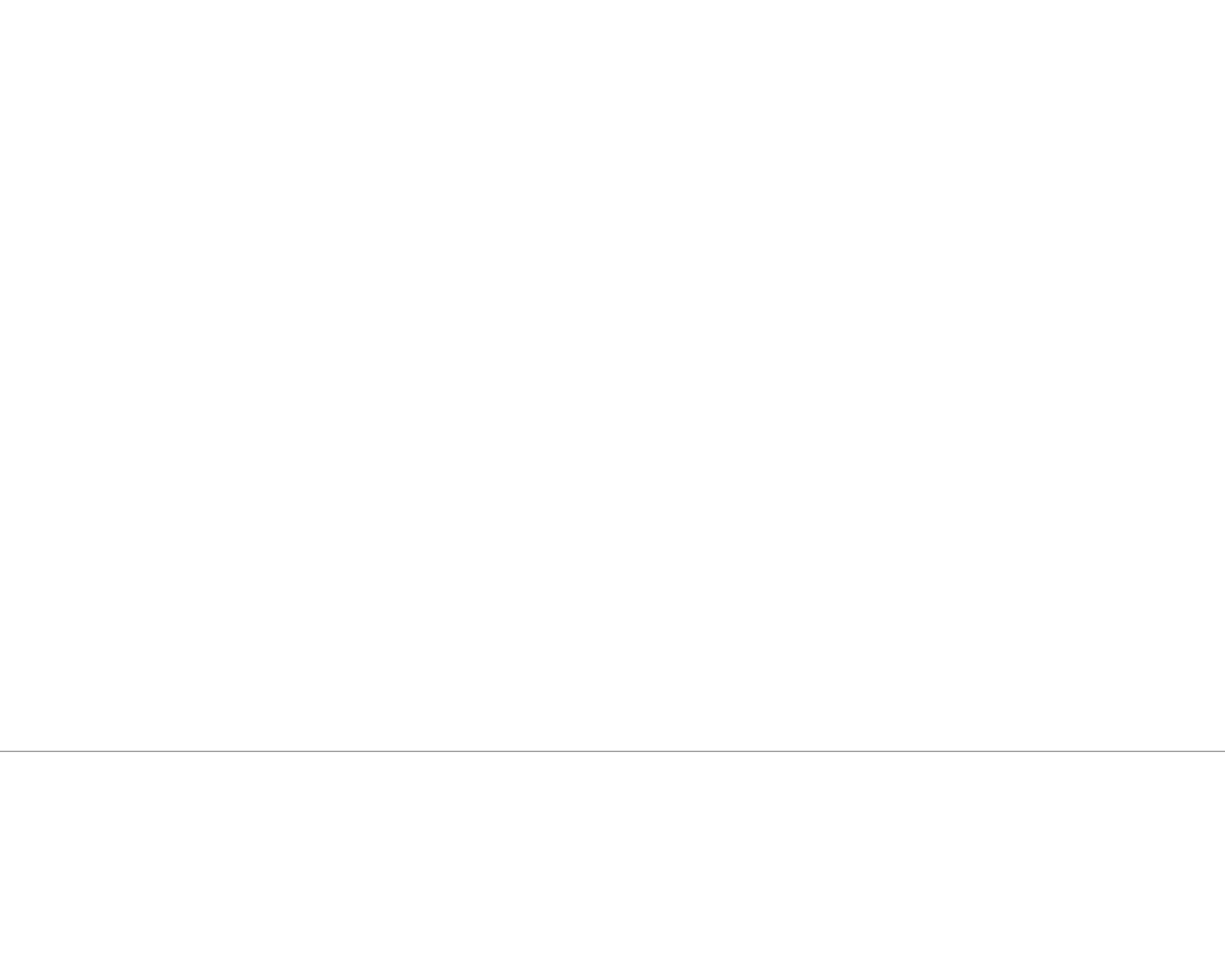
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Abstract

The main goal of this thesis is to explore how interior spaces in hotel designs can provide a less stressful environment and promote health and harmony by using Feng Shui Principles. It will first discuss the principles of Feng Shui and general hotel design, and then move on to demonstrate how the application of Feng Shui principles can be used to create a hotel environment that encourages health and harmony in its occupants. This project will demonstrate principles that not only can be applied to hotel space, but also can be practiced in any other interior space. This thesis, therefore, demonstrates new possibilities for how “care of the self” is delivered and received through design.

Content

Introduction	1
Eastern Design Principles	3
Introducing Feng Shui	4
Understanding Feng Shui	5
Understanding the Principles of Feng Shui	6
Interior Design with Feng Shui	7
The Eight Trigrams	7
The East / West Theory	8
Understanding Hotel Interior	9
Hotel Building Types and History	11
Interior Hotel Design	13
Front of the House	14
Back of the House	17
Other issues in Hotel Design	18
The Project	21
Location	23
Ground Floor - Lobby	27
Guestroom Floor	35
Fire Guestroom	39
Earth Guestroom	43
Metal Guestroom	47
Water Guestroom	51
Wood Guestroom	55
Exhibition 2006	59
Bibliography	61
Vita	63



I n t r o d u c t i o n

Today's society is rife with illness. It can be expected, therefore, that people will desire spaces that enhance their well-being. This thesis asks the question: How much can our surrounding environment impact our health? And can we improve our health just by being around our everyday surroundings?

Since illness and stress are related, spaces that house ill people or their relatives would benefit from designs that lessen stress and improve ones' feeling of wellbeing. It is normal for the hospitalized patient to have many visitors, some that need to stay close by for an extended period of time. Since the relatives of long-term patients may easily weaken their bodies from stress related to the hospitalization of loved ones, these visitors need a place to stay that provides rest for the body and soul, supporting them in their caretaker roles. This design creates a hotel space particularly for their needs.

The main goal of this thesis is to explore how interior spaces in hotel designs can provide a less stressful environment and promote health and harmony by using Feng Shui Principles. It will first discuss the principles of Feng Shui and general hotel design, and then move on to demonstrate how the application of Feng Shui principles can be used to create a hotel environment that encourages health and harmony in its occupants. This project will demonstrate principles that not only can be applied to hotel space, but can be practiced in any other interior space. This thesis, therefore, demonstrates new possibilities for how "care of the self" is delivered and received through design.

Because the outside world is busy, crowded, and stressful, the inside of this hotel will provide an open, spacious and calming contrast to its guests outside lives. The space will have clean geometric lines and a well-defined circulation path that is easy to negotiate. The focus of the public space is a garden, which is located at the center of the building with a glass ceiling that opens up to the roof level in order to bring in natural light. Each of the guestroom floors will have an unobstructed view below to the garden. This interior space serves to connect the guests to the environment surrounding them.

Eastern Design Principles

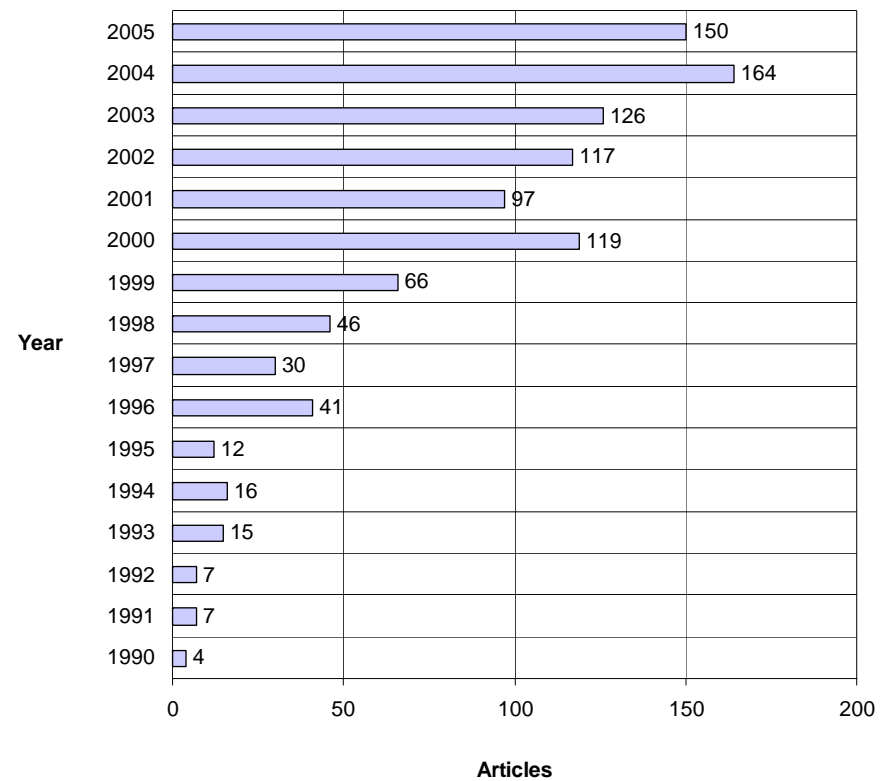
Introducing Feng Shui

Feng Shui is an Asian art of arranging an environment. Feng Shui works on the principle that people should be in harmony with their surroundings. It was first used to determine the best position for burial sites, but was gradually extended to other spaces, and can, in fact, be used in any space – home, garden, room, office, restaurant, or car, to name only a few examples.

People in America started to hear and read more about Feng Shui around 1990 and information on the subject has dramatically increased in the past decade. According to InfoTrac online search conducted in April 2006 using a keyword “Feng Shui” the total number of articles and publications found has increased from less than 10 in the early 1990s to over 150 in recent years. There were about 244 articles and publications found in all of the 1990s, but the total number of articles and publications found has increased to over 800 since 2000.

Feng Shui in interior design is a process of evaluating the components of Yin and Yang, Qi and personal and house trigrams to create harmonic and balanced relationships. In this project, the application of Feng Shui principles will be used to create a hotel environment that encourages health and harmony in its occupants.

Number of Feng Shui articles searched in InfoTrac



Understanding Feng Shui

Feng Shui is harmonizing the flow of Qi by arranging the environment in a manner that is most favorable for its positive flow.

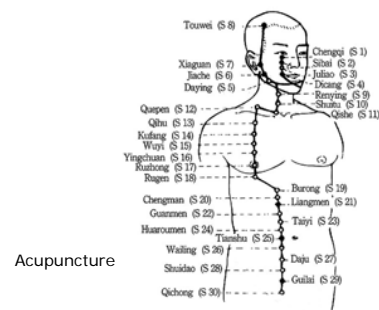
Feng Shui has been practiced over thousands of years by primarily Asian cultures for the purpose of bringing prosperity, health benefits, and well-being to peoples' lives. The most important concept of Feng Shui is "Qi" – the energy and vital force in nature that is a mechanism of life. In Chinese medicine, Qi is the life force that is believed to flow along a network of meridians in a person's body and is vital to their physical and spiritual health. Feng Shui harmonizes the flow of Qi by arranging the environment in a manner that is most favorable for its positive flow, thus allowing people to be in harmony with nature and their surroundings.

Theories of Yin and Yang and the theory of the Five Elements of matter are also incorporated into the study of Feng Shui and the basics of Qi in a way that is similar to Chinese medicine and martial arts. Chinese medical practices such as acupuncture and herbal therapy work to balance the flow of Qi within the body. Yin and Yang are two opposing and counterbalancing forces in nature. Yin and Yang are thought to reside in varying proportions in all things in the universe. Under this theory, within the universe, earth is Yin and heaven is Yang; within the earth, ocean is Yin and land is Yang; within land, environment is Yin and humans are Yang; and within humans, woman is Yin and man is Yang. This theory tells us that every two things in the Cosmos have a relationship whether they are linked directly or indirectly.

In Chinese medicine, Yin and Yang are terms used to describe the natural balance of the body. If the human body has too much or too little Yin or Yang it becomes ill. Balance and health is regained by regulating the 'Qi', via the moisture and blood in human internal organs. Chinese medicine also identifies five vital organs in relationship to the Five Elements. The heart, kidneys, spleen, liver, and lungs share a one-to-one relationship with water, fire, metal, earth and wood. The interaction and balance among these five organs and the five elements are seen as important for creating health and balance in the human body.

Chinese internal martial arts such as Tai Chi and Bagua Zhang also focus on the flow of Qi throughout the body by massaging internal organs by means of stretching and compression. These martial arts cultivate deep relaxation, greater body coordination, and centering in order to increase one's internal energy flow.

Since Feng Shui has been practiced over thousand of years it has been influenced by many forces from religion to fortune telling. This research will limit itself to approaches to Feng Shui that have had a proven benefit to interior design. Health benefits have been proven by Chinese medicine and internal martial arts using the same philosophy.



Acupuncture



Feng Shui



Tai Chi

Understanding the Principles of Feng Shui

Initially, Feng Shui was practiced to choose a good site for houses and graves, but its application has extended to include other areas including interior design. The application of the practices of Feng Shui to interior space can provide an environment that simulates the healing of its occupants. To understand this relationship, it is necessary to understand Feng Shui principles and related theories in greater depth.

Feng Shui literally means “wind and water,” which are two of the most fundamental forms of life’s energy. Feng Shui shares the same principle as Chinese medicine, especially the concept of Yin and Yang theory and Five Element Theory. Yin and Yang theory first emerged in the Chou dynasty (403-221 BCE). Because Feng Shui is primarily based on Yin/Yang theory, many people believe Feng Shui was developed during that same period (Sang, 1995). Feng Shui began to be recognized as an independent practice during the early Han period (200 BCE). The first written record of Feng Shui is in the book titled, *Shin-Chi* written by Ssu-ma Chien (Lee, 1986). Yin and Yang are interrelated and interdependent. They are the two primal energies and opposites of the universe, which continually change rather than remain static.

In Chinese medicine, the Yin and Yang theory describes human processes. The internal organs are Yin and the skin and muscles that protect the internal organs are Yang. Water and blood in the body is Yin, but the Qi to move the blood is Yang. The sucking and squeezing action of the lungs are caused by Qi. When we fill our lungs with air, we are in the Yang stage of respiration, when we breathe out, we are in the Yin stage (Beinfeld and Korngold, 1991).

The Yin and Yang theory was further refined into the system of the Five Elements in order to gain a deeper understanding of how the body, mind and spirit work. The Five Elements represent the structural relationship of the natural world both conceptually and physically. The Five Elements are Wood, Fire, Earth, Metal and Water. These elements are interrelated through the Productive and Domination Cycles. In the Productive Cycle one element produces or generates the next element as part of a balancing process. In the Domination Cycle one element destroys the other to reduce an imbalance of the Five Elements.

Water nourishes wood by moistening it and restrains fire by quenching it. Wood generates Fire by providing fuel for combustion and inhibits earth by covering it. Fire generates earth by reducing matter to ash. This, in turn, forms soil. Fire restrains metal by burning and melting it. Earth supports metal by forming and bringing minerals to the surface. It also controls water by damming and absorbing it. Metal vitalizes water by permeating it with refined substances and restrains wood by cutting it.

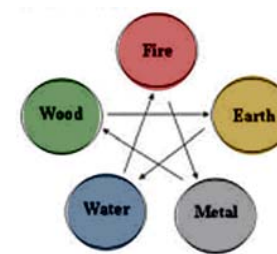
These same processes are carried over into Chinese medicine where the Five Elements are associated with specific internal organs: Water to the Kidney; Wood to Liver, Fire to Heart; Earth to Spleen; and Metal to Lung. Just as Water nourishes Wood, the kidney generates the blood, which is stored by the liver. As Wood feeds Fire, the liver provides blood to the heart. As Fire generates Earth, the heart supports the spleen by providing warmth and metabolic energy to support the digestion of food. As Earth gives rise to Metal, the spleen supports the lung by raising food nutrients to combine with air. As Metal vitalizes Water, the lung nurtures the kidney by sending moist Qi downward to be collected there.



Yin / Yang



Productive Cycle



Productive Cycle

Interior Design with Feng Shui

Feng Shui has two divisions: the landform classification branch and the building characteristic branch. The landform classification branch studies how energy flows over, around, and through mountains, rivers, and valleys, and how the energy connected with nearby landforms, as well as roads and buildings, can affect a building or burial site. The building characteristics branch studies the flow of energy within a structure and how it affects occupants. This branch includes the study of interior design. The building characteristics branch of Feng Shui studies the patterns of energy as they flow through exterior and interior portions of a structure. The Feng Shui practitioner evaluates a building's overall exterior shape using three main criteria:

Stability: Generally, a building's shape is thought of as stable if none of the levels are significantly larger than others and if the structure does not rest on pillars.










Balance: A building is said to be balanced if it has a regular shape.

Smoothness: A building is said to be smooth if it has no harsh, protruding features, whether vertical or horizontal. Houses shaped like triangles and those with knife-like edges also lack smoothness.

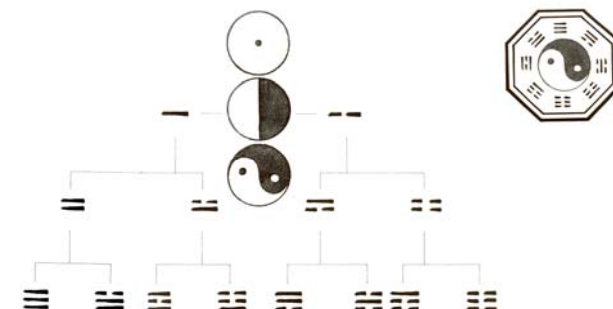
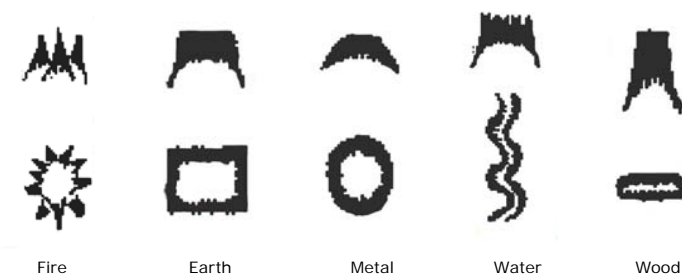
Interior architectural features can promote or impede the flow of positive energy and introduce or neutralize negative energy. Internal features include the shape of the house, the floor plan, the interior structures, the front and back yard, the driveway, building materials and interior decorations.

The Eight Trigrams

The ancient Chinese followed how Qi navigates through the cycles of Yin and Yang. Studying the movement pattern, transformation, and evolution of Qi through nature's elements was considered far more important than studying particular elements alone. These events or patterns were correlated into a symmetrical model representing all possible cosmic and human situations. This model is called the principle of the Eight Trigrams. In the trigrams the solid lines represent Yang, and the broken lines represent Yin. Combinations of each trigram could generate various results that represent good or bad aspects.

SE Xun  Wood 4	S Li  Fire 9	SW Kun  Earth 2
E Zhen  Wood 3	 Earth 5	W Dui  Metal 7
NE Gen  Earth 8	N Kan  Water 1	NW Qian  Metal 6

The Planets



The East/West Theory

The East/West theory, also known as the Eight House Theory, states that both people and houses belong to one of the Trigrams. Each of the Trigrams falls into two distinct categories: either east or west group. Matching East with East or West with West creates favorable design arrangements. People are assigned personal trigrams based on their year of birth and sex. A house is assigned a trigram based on the sitting direction of the house. Harmonically matching Personal Trigrams with House Trigrams creates positive living situations.

Feng Shui in interior design, then, is a process of evaluating the components of Yin/Yang, Qi and Personal and House Trigrams to create harmonic and balanced relationships. In this project, the application of Feng Shui principles will be used to create a hotel environment that encourages health and harmony in its occupants.

Personal Trigram Chart

Year	Trigram		Year	Trigram		Year	Trigram	
	Male	Female		Male	Female		Male	Female
1925	Zhen (Wood)	Zhen (Wood)	1961	Zhen (Wood)	Zhen (Wood)	1997	Zhen (Wood)	Zhen (Wood)
1926	Kun (Earth)	Xun (Wood)	1962	Kun (Earth)	Xun (Wood)	1998	Kun (Earth)	Xun (Wood)
1927	Kan (Water)	Gen (Earth)	1963	Kan (Water)	Gen (Earth)	1999	Kan (Water)	Gen (Earth)
1928	Li (Fire)	Qian (Metal)	1964	Li (Fire)	Qian (Metal)	2000	Li (Fire)	Qian (Metal)
1929	Gen (Earth)	Dui (Metal)	1965	Gen (Earth)	Dui (Metal)	2001	Gen (Earth)	Dui (Metal)
1930	Dui (Metal)	Gen (Earth)	1966	Dui (Metal)	Gen (Earth)	2002	Dui (Metal)	Gen (Earth)
1931	Qian (Metal)	Li (Fire)	1967	Qian (Metal)	Li (Fire)	2003	Qian (Metal)	Li (Fire)
1932	Kun (Earth)	Kan (Water)	1968	Kun (Earth)	Kan (Water)	2004	Kun (Earth)	Kan (Water)
1933	Xun (Wood)	Kun (Earth)	1969	Xun (Wood)	Kun (Earth)	2005	Xun (Wood)	Kun (Earth)
1934	Zhen (Wood)	Zhen (Wood)	1970	Zhen (Wood)	Zhen (Wood)	2006	Zhen (Wood)	Zhen (Wood)
1935	Kun (Earth)	Xun (Wood)	1971	Kun (Earth)	Xun (Wood)	2007	Kun (Earth)	Xun (Wood)
1936	Kan (Water)	Gen (Earth)	1972	Kan (Water)	Gen (Earth)	2008	Kan (Water)	Gen (Earth)
1937	Li (Fire)	Qian (Metal)	1973	Li (Fire)	Qian (Metal)	2009	Li (Fire)	Qian (Metal)
1938	Gen (Earth)	Dui (Metal)	1974	Gen (Earth)	Dui (Metal)	2010	Gen (Earth)	Dui (Metal)
1939	Dui (Metal)	Gen (Earth)	1975	Dui (Metal)	Gen (Earth)	2011	Dui (Metal)	Gen (Earth)
1940	Qian (Metal)	Li (Fire)	1976	Qian (Metal)	Li (Fire)	2012	Qian (Metal)	Li (Fire)
1941	Kun (Earth)	Kan (Water)	1977	Kun (Earth)	Kan (Water)	2013	Kun (Earth)	Kan (Water)
1942	Xun (Wood)	Kun (Earth)	1978	Xun (Wood)	Kun (Earth)	2014	Xun (Wood)	Kun (Earth)
1943	Zhen (Wood)	Zhen (Wood)	1979	Zhen (Wood)	Zhen (Wood)	2015	Zhen (Wood)	Zhen (Wood)
1944	Kun (Earth)	Xun (Wood)	1980	Kun (Earth)	Xun (Wood)	2016	Kun (Earth)	Xun (Wood)
1945	Kan (Water)	Gen (Earth)	1981	Kan (Water)	Gen (Earth)	2017	Kan (Water)	Gen (Earth)
1946	Li (Fire)	Qian (Metal)	1982	Li (Fire)	Qian (Metal)	2018	Li (Fire)	Qian (Metal)
1947	Gen (Earth)	Dui (Metal)	1983	Gen (Earth)	Dui (Metal)	2019	Gen (Earth)	Dui (Metal)
1948	Dui (Metal)	Gen (Earth)	1984	Dui (Metal)	Gen (Earth)	2020	Dui (Metal)	Gen (Earth)
1949	Qian (Metal)	Li (Fire)	1985	Qian (Metal)	Li (Fire)	2021	Qian (Metal)	Li (Fire)
1950	Kun (Earth)	Kan (Water)	1986	Kun (Earth)	Kan (Water)	2022	Kun (Earth)	Kan (Water)
1951	Xun (Wood)	Kun (Earth)	1987	Xun (Wood)	Kun (Earth)	2023	Xun (Wood)	Kun (Earth)
1952	Zhen (Wood)	Zhen (Wood)	1988	Zhen (Wood)	Zhen (Wood)	2024	Zhen (Wood)	Zhen (Wood)
1953	Kun (Earth)	Xun (Wood)	1989	Kun (Earth)	Xun (Wood)	2025	Kun (Earth)	Xun (Wood)
1954	Kan (Water)	Gen (Earth)	1990	Kan (Water)	Gen (Earth)	2026	Kan (Water)	Gen (Earth)
1955	Li (Fire)	Qian (Metal)	1991	Li (Fire)	Qian (Metal)	2027	Li (Fire)	Qian (Metal)
1956	Gen (Earth)	Dui (Metal)	1992	Gen (Earth)	Dui (Metal)	2028	Gen (Earth)	Dui (Metal)
1957	Dui (Metal)	Gen (Earth)	1993	Dui (Metal)	Gen (Earth)	2029	Dui (Metal)	Gen (Earth)
1958	Qian (Metal)	Li (Fire)	1994	Qian (Metal)	Li (Fire)	2030	Qian (Metal)	Li (Fire)
1959	Kun (Earth)	Kan (Water)	1995	Kun (Earth)	Kan (Water)	2031	Kun (Earth)	Kan (Water)
1960	Xun (Wood)	Kun (Earth)	1996	Xun (Wood)	Kun (Earth)	2032	Xun (Wood)	Kun (Earth)

For centuries, people have traveled away from their homes for business and pleasure, and hotels have provided lodging for them. The first form of hotel was the inn or tavern that provided shelter and food for traders and temporary workers. The first motels grew strategically along roads or between towns. Motels were built along major highways as people were required to travel more often on roads. As travelers' incomes grew, luxury hotels developed.

Today's hotel guests have become more sophisticated by acquiring design knowledge, causing them to have greater expectations. Designers need to have an understanding of those expectations and incorporate them into their hotel designs. Successful hotels give a positive lasting memory to guests. Owners, architects, and interior designers must work together to provide that good impression.

The objective of this chapter is to understand hotel design by identifying issues that are involved in the hotel design process. This will be done by studying the major types of hotels, taking into account the designs and services they offer, and giving a brief overview of building and safety codes and regulations. This research is a study of existing hotel types in the Richmond area, supported by a review of published books and articles on hotel design, including online publications. This research does not cover all the details of how to design a hotel. It will, however, explore the common issues considered when designing a hotel from an interior designer's point of view and may exclude some facts that are important to others involved in the hotel design process.



Hotel Building Types and history

The earliest form of hotel goes back to ancient civilization's expansion across the globe. As early as 1800 B.C, the Code of Hammurabi outlined the first rules for tavern owners. The first forms of motel were built up along the China silk route in 1000s. The first American hotel, City Hotel in New York, was built in 1794. The late 1800's were the Golden Age of hotels in America with the building of such famous hotels as New York's St. Regis and the Plaza. When it first opened in 1904, the St. Regis was considered the ultimate New York City grand hotel in the European tradition, offering to its guests the comfort and luxury found in the most elegant aristocratic homes of the era. The economic prosperity of the 1920s created the first hotel boom in America. Grand Central station in New York City had its complex connected to five hotels. The second hotel boom appeared in the 1950s, helped by expanded education and mass travel. Holiday Inn was the first motel with large rooms, and motel chains grew across America. In the 1980s, a third hotel boom was generated by innovative marketing and the development of specialized types of hotels; many combined with large-scale commercial complexes such as airports, conference centers, and vacation villages. In the 1990s, Mega-casino themed hotels boomed in Las Vegas.

Hotels can be categorized into five major types: luxury; resort; business/ convention; limited-service; and casinos. In order to be successful, hotel projects require well-planned design and construction. Each category puts emphasis in different areas in design based on guest expectations and the services provided.



Luxury hotels

As travelers' incomes grow, they are willing to pay a higher price for luxury accommodations. These guests expect to get personal attention and service during their stay. Such services may include personal butlers, bartenders, and business cards. For business-related services, the guest may expect to be offered a business-size desk, direct line telephones, and state-of-the-art conference rooms. Luxury hotels are usually located in either an urban or resort setting and provide the guest with the best services the area has to offer. A successful urban luxury hotel conveys the best aspects of the city and captures the essence of the metropolitan location. For example, the Jefferson Hotel in Richmond, Virginia invites guests to experience the city's historic heritage in a luxurious upscale setting.

In order to fulfill guest expectations, luxury hotels put emphasis on sections of the hotel like the lobby, the food and beverage area, and the guest rooms. The key component of luxury hotel design is its quality and attention to detail. The use of fine bathroom fixtures and expensive materials such as natural stone, marble, and wood are examples of this component.

Resort Hotels

Resort hotels give lasting memory to guests by incorporating local surroundings and integrating local construction materials and finishes. Lobbies and public areas provide easy access to outdoor activities. An example of this type of easy access is evidenced by the Walt Disney Resort Hotel in Orlando, Florida. Resort hotels emphasize the site, public areas, and guest rooms. The resort hotel designer needs to provide guests with an experience that is both comforting and unique while remaining particular to the local area.

Business / Convention Hotels

Business/convention hotels need to mix business with pleasure, making guests feel they have escaped from their normal office routines while still working and attending meetings. These hotels make work a pleasurable experience. To do this, they must promote a sense of well-being and productivity. Business/convention hotels emphasize lobbies and food and beverage service. These hotels provide elegance and comfort while incorporating high-tech amenities—all in a resort-like setting.

Limited Service Hotels / Motels

Limited service hotels focus on lodging. They are inexpensive and provide a clean and well-lit space. Because the guest rooms are the main source of income in these hotels, the guest room area makes up about 80 percent of the total building area. Limited service hotels are simple in design and construction. Roadside motels such as Motel 6 are good examples of this hotel type.

Casinos

Casino hotels work to attract guests and keep them in one place to make them feel good while spending money. Gambling has long been a part of human society limited casino gambling is allowed in twenty-eight states in the United States. Some sort of gambling is legal in all states except Utah and Hawaii. Casinos designers need to provide many amenities and good security. A good example of this type of hotel is the Mirage Hotel and Casino in Las Vegas, Nevada, which provides many different types of attractions and entertainment as well as gambling. Casinos emphasize the design of public areas and food and beverage service.



Interior Hotel Design

To build a successful hotel, owners and hotel managers need to work together with architects and interior designers. In their book, *Building Type Basics For Hospitality Facilities*, McDonough, Glazier, Lindsay and Sykes outline some of the responsibilities of interior designers as:

- Provide model room design for presentation to owner which include lighting and paint colors
- Develop or review typical room type configurations
- Develop color scheme
- Approve colors and finishes
- Case-good selection

Other responsibilities of interior designers are to follow the federal ADA/code, local codes and regulations, and develop case works and details.

A hotel contains two distinct areas called the “front of the house” and the “back of the house.” The front of the house is the area that guests see and interact with the hotel staff. The back of the house is where the support services take place. In order to provide excellent services to hotel guests, the back of the house is crucial to the design plan. Because the back of the house is often not perceived as producing revenue, it may get ignored in the hotel design process, but the decision is directly related to what kind of service a hotel guest receives.

Front of the House

In the front of the house, guests will see and interact with the hotel staff. Therefore, the front of the house traditionally gets the greatest amount of the owner's, hotel operators' and design team's attention.

Guest Rooms

The guest room is the main product sold by the hotel. The length and width of the guest room is determined by the amount of furniture that needs to go in it and the degree of luxury the hotel wishes to achieve. The most common hotel room today is the twin-bedded room. The headboard in the guest room may be one of the most important features of the room. The headboard will be subject to heavy wear and soiling, so it will need to be sturdy and easily cleaned. The bed should be movable, also to facilitate cleaning. A dresser or cupboard with drawers is most likely placed opposite the bed. The guest room also often provides two armchairs with a cocktail table near the window wall. Another piece of furniture that is often found in the guest room is the luggage stand. It is far more desirable to have a pleasant piece of furniture here than a folding luggage rack. The longer a guest stays in the hotel, the larger the closet space that is needed. Most hotels only need a small closet or clothes-hanging space, but resort hotels must consider a large walk-in closet in the design of their rooms.

Guest Bathrooms

The most basic guest bathroom will have a combination tub-shower, a lavatory, and a water closet. Two lavatories in one bathroom may allow two persons to use bathroom at the same time. Most hotels use a silent tank-type of toilet as a water closet. It is preferable to have a ledge for toiletries rather than a medicine cabinet because a guest often places shaving materials, lotions, and other toiletries in a medicine cabinet, forgetting to look in it before leaving the hotel. Good lighting is an essential to hotel design, but bright lighting in the guest bathroom is required for men to shave and women to apply makeup.

Guest Floor Corridors

Guest floor corridors are transitional spaces between the public space and the guest room. An adequate corridor width is six feet. The elevator foyer is slightly wider than the corridor itself and a small bench or other type of seating for guests waiting for the elevator is often placed in this area. Guests appreciate a full-length mirror in the elevator foyer to check their appearance before descending to the main lobby floor.

The lower portion of the corridor wall will be subject to abuse from passing luggage and trolleys. Therefore, this portion should be made with shock resistant material or painted a darker color than the upper part of the wall. Lighting plays an important part in making corridors seem more interesting and less stretched out. Good lighting design for the alcove area is important because it gives greater visibility to the room numbers on the doors and imparts a sense of comfort and security.

Lobbies

Hotel lobbies set the mood in a hotel. This space generates the single greatest impact on the guests. Furnishings, color, finishing materials, lighting, and decorations must carefully balance the lobby's visual impact with its functions. Every hotel must have a public lobby regardless of its size. Lobbies are usually larger in resort and convention hotels because people often gather there. The space program for the lobby must recognize the type of hotel and the amount of circulation within the public areas. Carefully locating bars, restaurants, and retail kiosks within the lobby is one way to increase the apparent size of the space. For this reason, interior designers play a most vital part in the planning and designing of hotel lobbies.

Restaurant Facilities

Every hotel needs to consider providing some sort of food to its guests, though needs vary. Small hotels may just have a pleasant coffee shop restaurant, but convention hotels need a bar located next to the convention facilities so that guests may enjoy a cocktail before or after meetings. The bar should be placed in the normal path of traffic to take advantage of pauses between meetings and seminars.

More and more hotels have a specialty restaurant featuring a signature chef to encourage guests to dine in the hotel rather than seeking out local restaurants. Some hotels operate roof-top restaurants where a view of the city or resort is available as an attraction in its own right.

Guest-Floor Service Space

Every guest room floor needs a service area where linens, maids' carts, cleaning supplies, vacuum cleaners, pails, and other cleaning products can be stored. Each maid can handle between twelve and fifteen rooms, but will need a cart. Sufficient space should be left for the storage of room service carts. The service elevators should be located near the storage rooms so that service activities may take place out of the sight of hotel guests.

Other Areas

Other areas in the front of the house include the administrative area, elevators, and banqueting facilities. Elevators should be placed midway between the two ends of the guest room corridor. Banqueting facilities should have movable, separating walls to make it possible to achieve a great flexibility of various sizes. Since the front of the house is where guests see and interact with hotel staff, their design should facilitate the interaction between them.

Back of the House

Good back of the house design is essential to the consistent delivery of a high level of service to the guests. A poor design in the back of the house might lead to unnecessary bottlenecks that get in the way of a hotel's core service, which could prove costly in the long-run.

Two of the main objectives in the design of the back of the house are control and efficiency. Tight control must be exercised so that supplies and services go directly to their destinations without becoming lost on the way. A well planned back of the house will have circulation patterns that will provide the utmost in control.

Food and Beverage Service

The flow of supplies needs to be tightly controlled in the food and beverage service area. Today's food operations are highly complicated and designers need to be familiar with the entire operation. It has been shown that a well-planned food and beverage setup where control and efficiency are the operating principle will increase hotel profit. Therefore, the hotel operator and staff need to be involved in the designing of this area.

Other Areas

The back of the house also includes the mechanical room. A good design should also include a provision for an engineer's office. Other areas in the back of the house include the laundry facilities, the housekeeping department, and the accounting and booking office. The back of the house is the area people often look to first to cut operating or construction cost because the guest does not see the area while they are staying in the hotel. A good hotel design must maximize operations and staff efficiencies so that the back of the house can provide a higher level of service.

Other issues in hotel design

Hotel design should follow federal and local laws and regulations. Some of the legal issues to be considered are listed below.

Accessibility

In 1991, the U.S. Congress adopted the ADA (Americans with Disabilities Act), which requires non-discrimination on the basis of disability in the public accommodation of commercial facilities. Noncompliance with this law can bring a federal civil action. Designers must follow ADA requirements in designing a hotel even though these requirements are broad and complex. The ADA Standard for Accessible Design provides the guidelines for the number of accessible rooms that must be provided according to the number of guest rooms. Parking requirements are also outlined by a charter in the ADAAG (American with Disabilities Act Accessibility Guide). The minimal accessible parking space must be 8 ft. wide and have a 5 ft. wide access aisle.

Safety Issues

All buildings are subject to a variety of regulations and codes. Detailed hotel design must include the incorporation of the fire code to protect guests until they can exit from the building safely. The United States has several building codes in addition to the National Fire Protection Association (NFPA) life safety code. The chief potential fire hazards are interior finishes and hotel furnishings. Over 40 percent of hotel fires and near 60 percent of motel fires are caused by bedding. Therefore, flame resistant materials need to be used to limit the spread of fire and minimize the danger from smoke.

A survey done by John Portman & Associates revealed that many business travelers are willing to pay more money for extra safety features. Secured hotels send clear messages to criminals that there are no hiding places, many witnesses, and no escape routes in the hotel. On top of state-of-the-art equipment, hotels can also hire security to patrol and monitor the hotel premises. For the safety of hotel guests, hotel standards must be designed to meet the most stringent requirements of all codes.

Hotel Economics

Hotel designers must consider Return on Investment (ROI). As a rule of thumb, for every dollar of income per room, \$1,000 should be spent in the construction of that room. The construction of the room should also cover its share of the other parts of the hotel structure such as lobbies, dining rooms, bars, kitchens, and all other facilities. The cost of furnishings along with other pre-opening expenses like hiring the hotel staff add somewhere between 50% and 75% of the total construction costs.

Future Trends

These days, hotel guests are very sophisticated. To meet the needs of these guests, hotels need to incorporate flexibility into their designs. An increasing number of hotels feature individually designed rooms, which reflect the style of the building, shape of the room, or the uniqueness of the location. Hilton Hotel, for example, has a reputation for being innovative and meeting the needs of business travelers. The Hilton Munich Park in Germany, for example, provides four themed rooms: Technology, Relaxation, Business Efficiency, and Inner Calm. The Technology room has a large plasma TV, DVD player, PlayStation, and surround-sound stereo. The Business Efficiency room has luxury bathroom and business facilities area. The Relaxation room has a massage chair. The Inner Calm room has adjustable mood light, relaxing music CDs, and aromatherapy oil. Other current trends in hotel design are listed below:

- Large hotel chains are replacing the fine dining concept with more diverse restaurants.
- Hotels are allocating more space for spas and fitness facilities.
- There is a new tendency toward providing as much natural light as possible in public spaces and guest rooms.
- New hotel buildings are making boardroom and meeting spaces a priority.
- Hotel design is going green and incorporating local natural materials.
- New resort hotels are also targeting conference and business travelers.

Hotels are successful when they give positive lasting memories to their guests. Hotel owners and designers must work together to provide these impressions. New hotels need to be flexible enough to satisfy today's sophisticated guests and incorporate changing technology. The back of the house and front of the house need to be designed well to provide the best service to guests that the hotel can provide. Hotel designers must also follow building and safety codes and regulations. Good hotel designs focus on guests' convenience and satisfaction, because satisfied guests are more likely to come back again.

Project

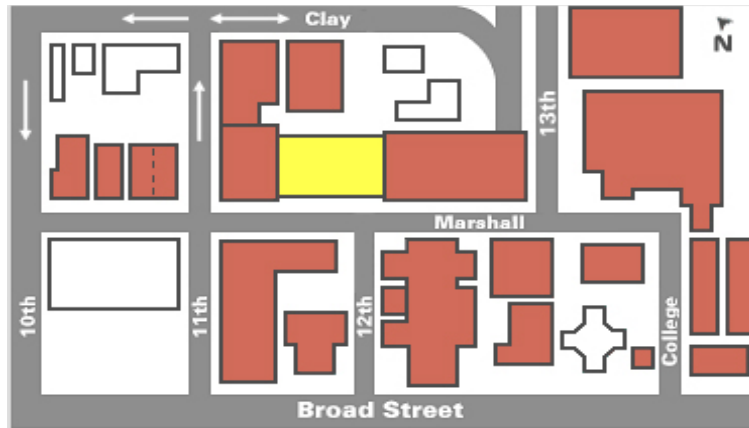
Concept Statement:

This hotel design utilizes interior space based on Feng Shui principles. This space is designed with clean geometric lines. Because the outside world of the hotel is busy, crowded, and stressful, the inside of the hotel provides open and spacious impression to its guests. The space is designed with clean geometric lines for a well-defined circulation path. A garden is located at the center of the building with a glass ceiling open up to the roof level in order to bring in natural light to the deep hotel interior and create an open feeling. Each of the guestroom floors will have an unobstructed view below to the garden. One section of the restaurant has a glass ceiling to bring in natural light. The other side has a bar area to serve alcohol. The first floor has conference centers and meeting areas for academic and professional seminar purposes. In addition, the first floor has a café area for light snacks and drinks near a spacious seating area. Guestrooms avoid over-sized furniture and limit furniture arrangements to make the area spacious. The guest bathroom features a large mirror with bright lights to make it feel open.



Location

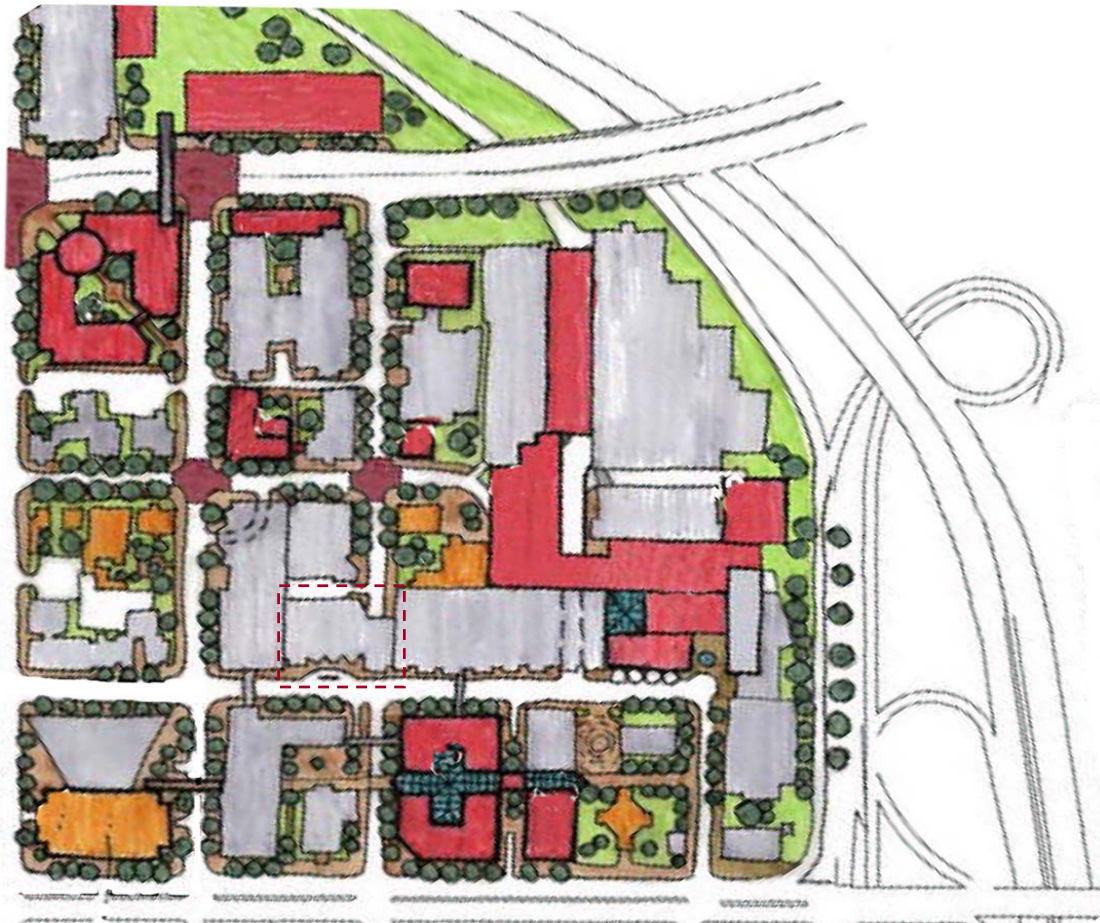
Building Description:

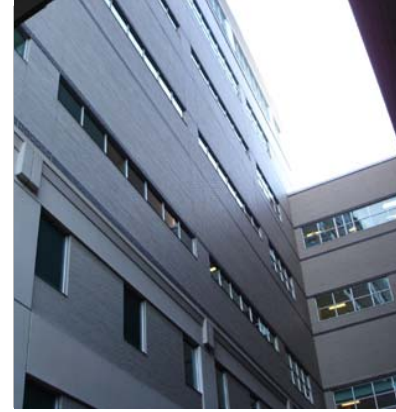


A nine level, 200,000 square foot diagnostic and treatment facility, The Gateway Building will serve as the hospital's front entrance and will make the entire Medical College of Virginia Hospital, Richmond VA, more accessible to patients and visitors.

- Aluminum Curtain Wall System:
 - Clear Glass
 - Spandrel Glass
 - Fritted Glass
 - Fritted Spandrel Glass
 - Clear Tempered Glass
- Pre-cast Concrete

24

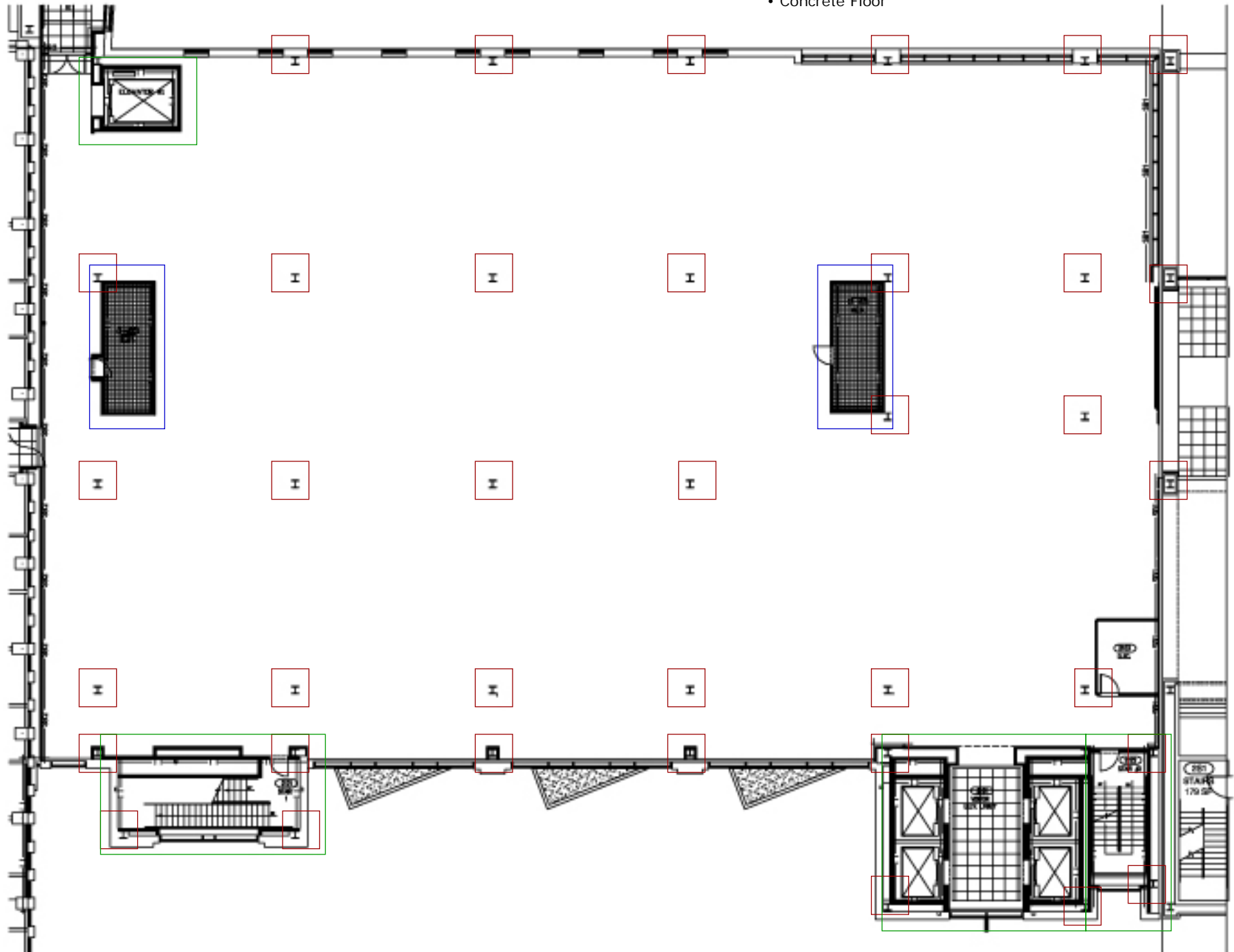




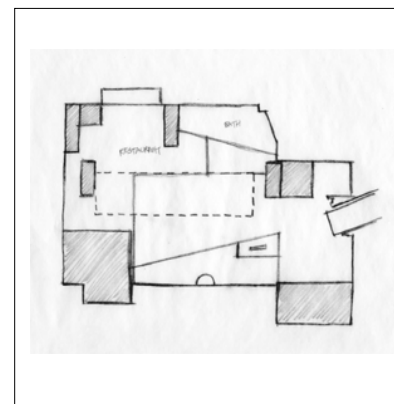
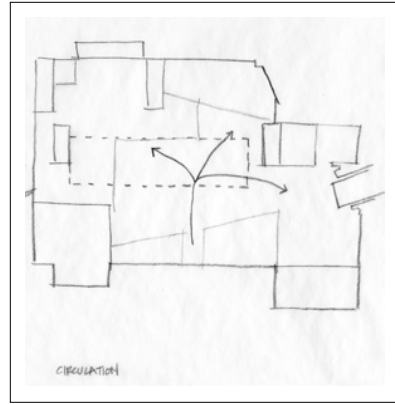
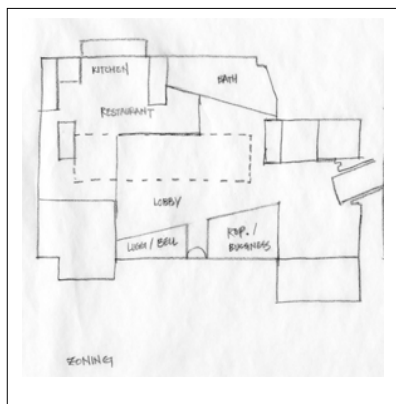
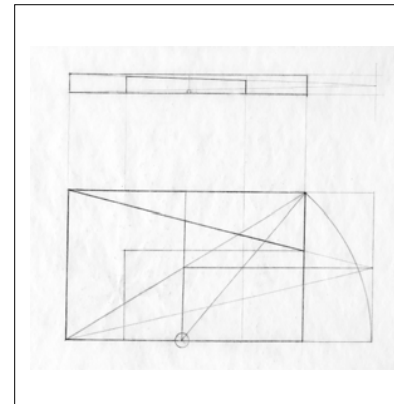
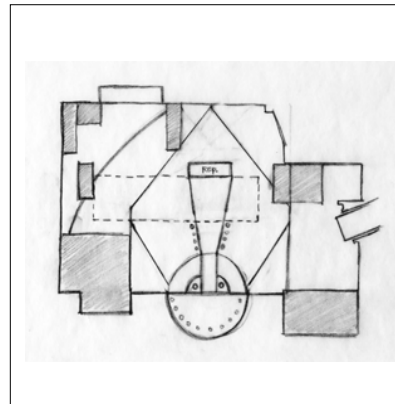
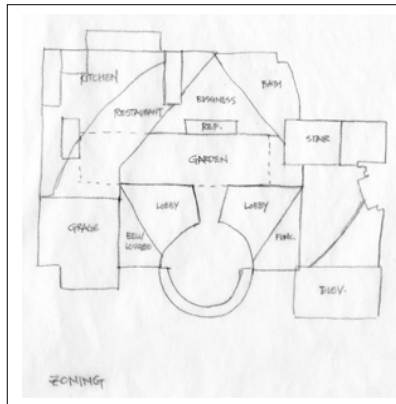
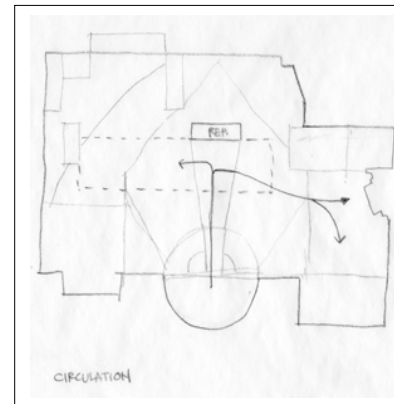
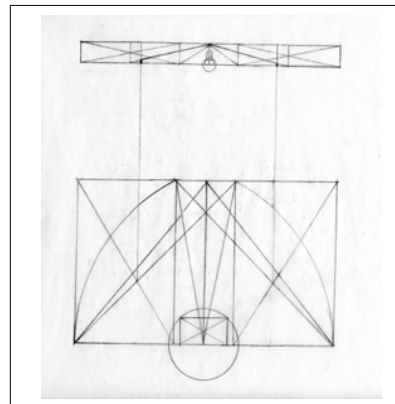
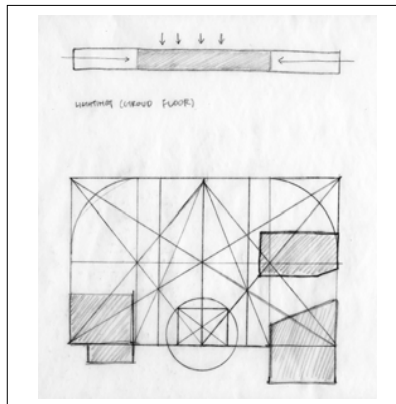
Existing Space Pictures

Existing Structure Study

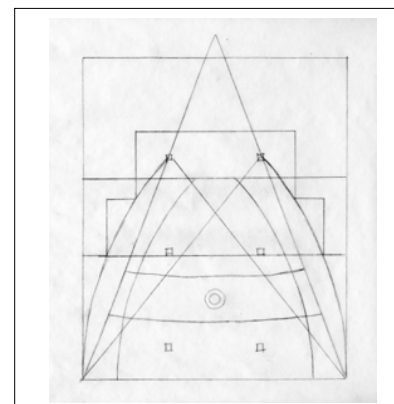
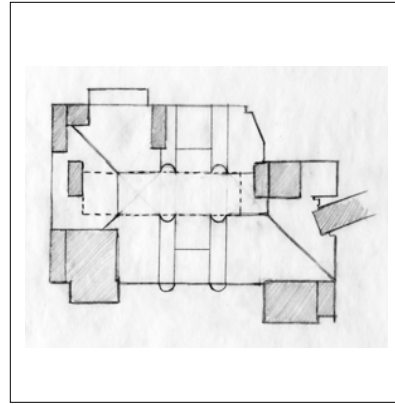
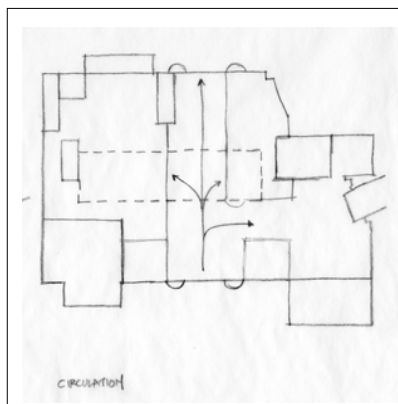
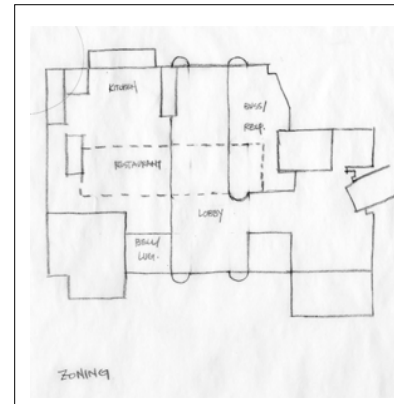
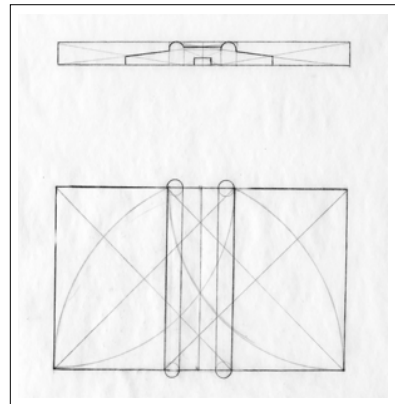
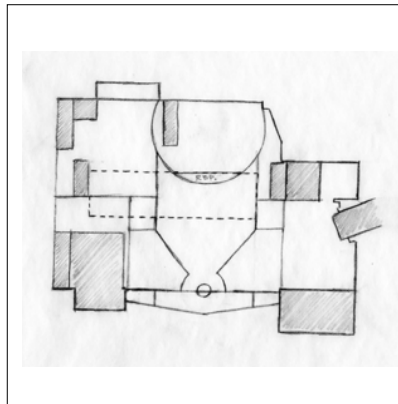
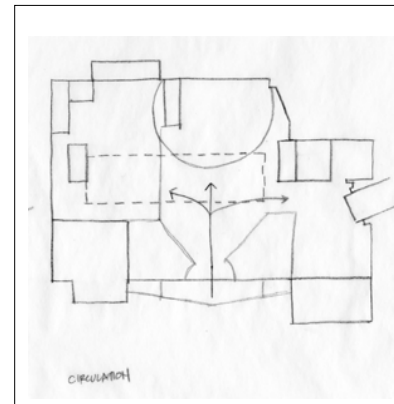
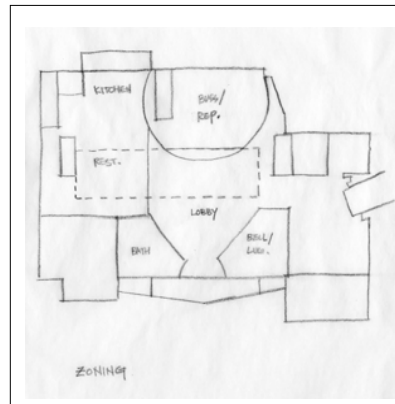
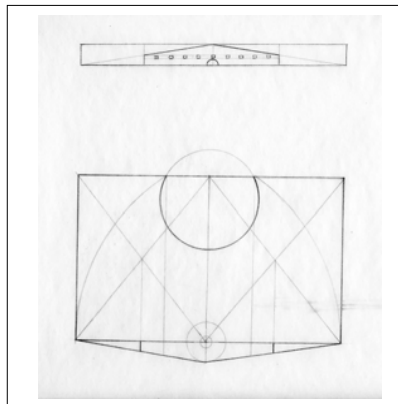
- H-Beam Column System
- Wall System: Structure Frames
- Mechanical
- Stairs and elevators
- Concrete Floor



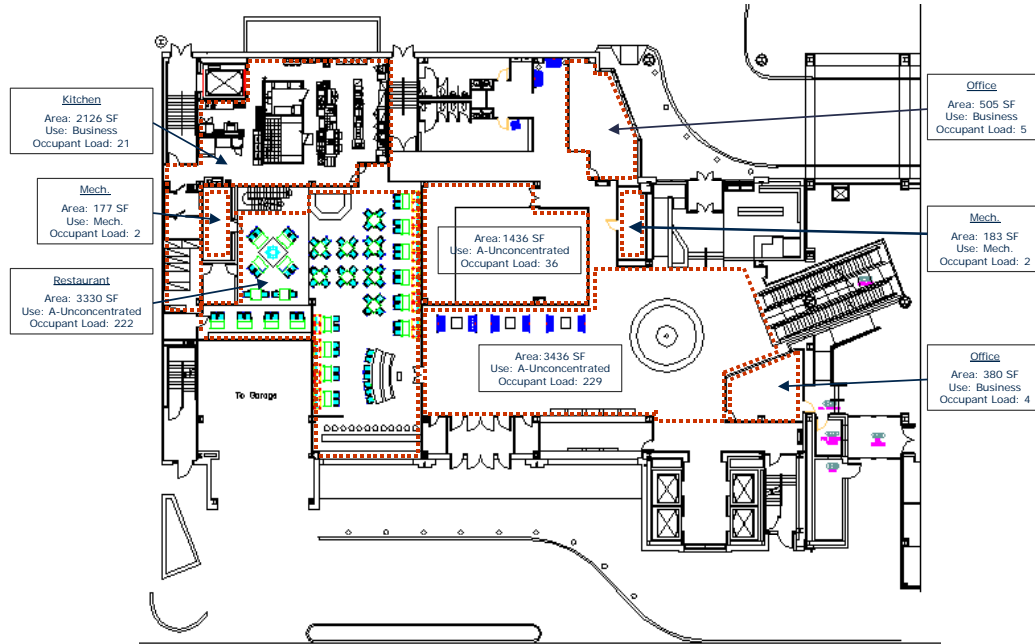
Ground Floor - Lobby



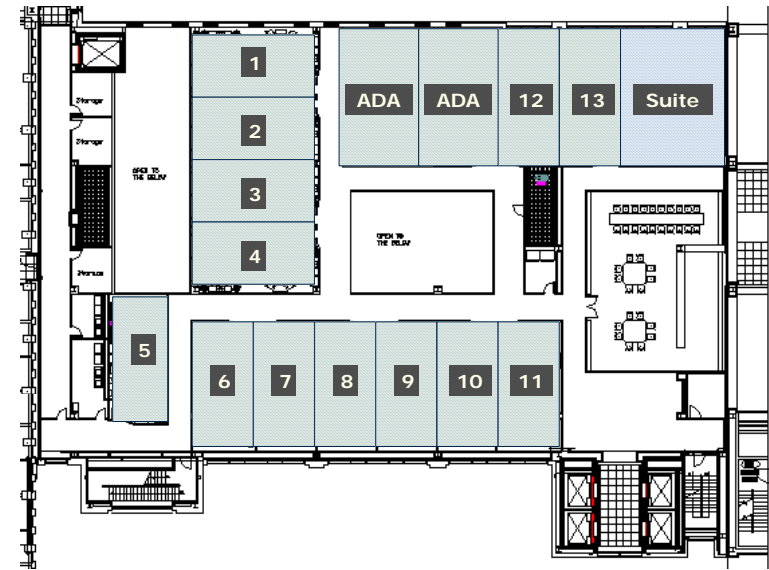
Sketches – Design Development



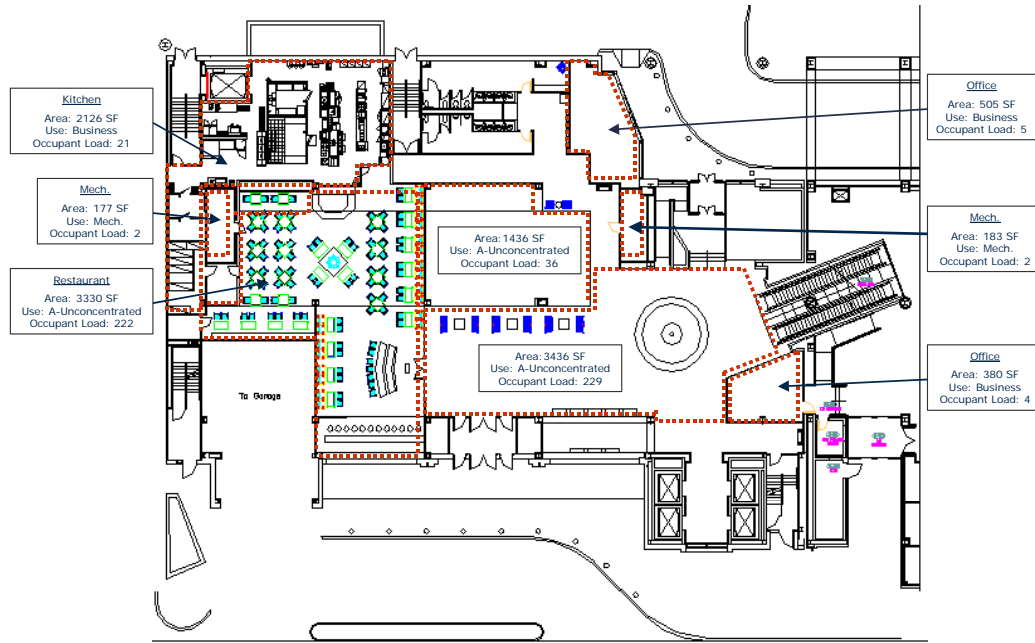
Sketches - Design Development



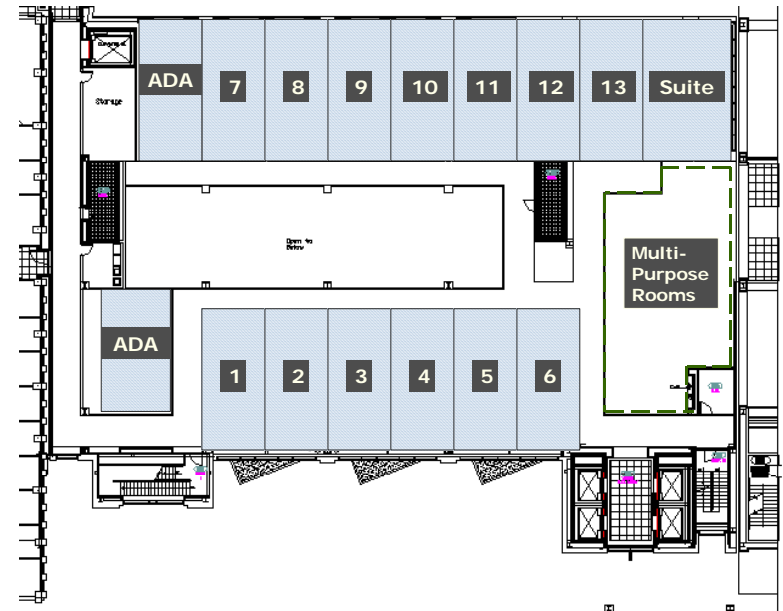
Option 1 Ground Floor Loading



Option 1 Guest Floor Layout

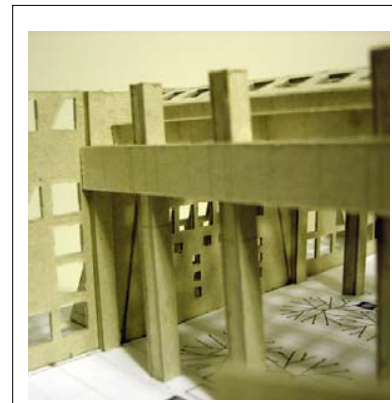
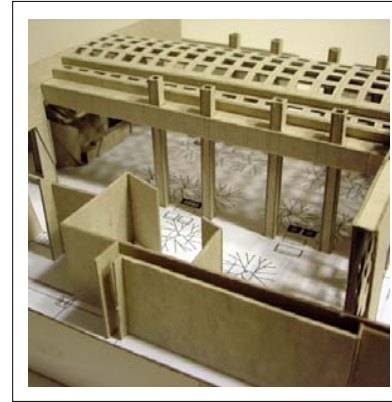
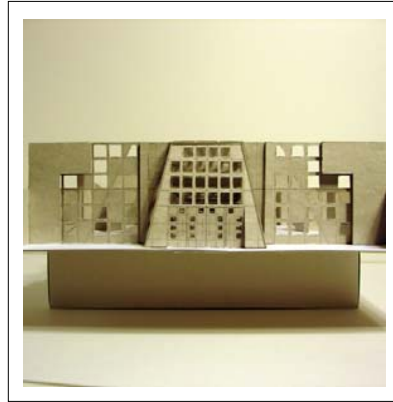
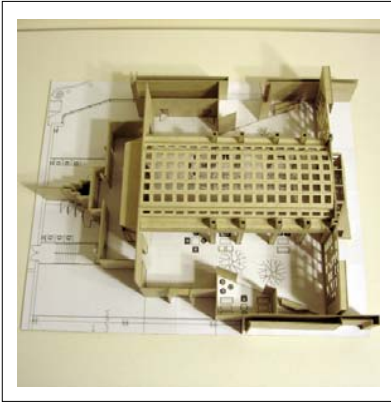


Option 2 Ground Floor Loading



Option 2 Guest Floor Layout

Early Design Development

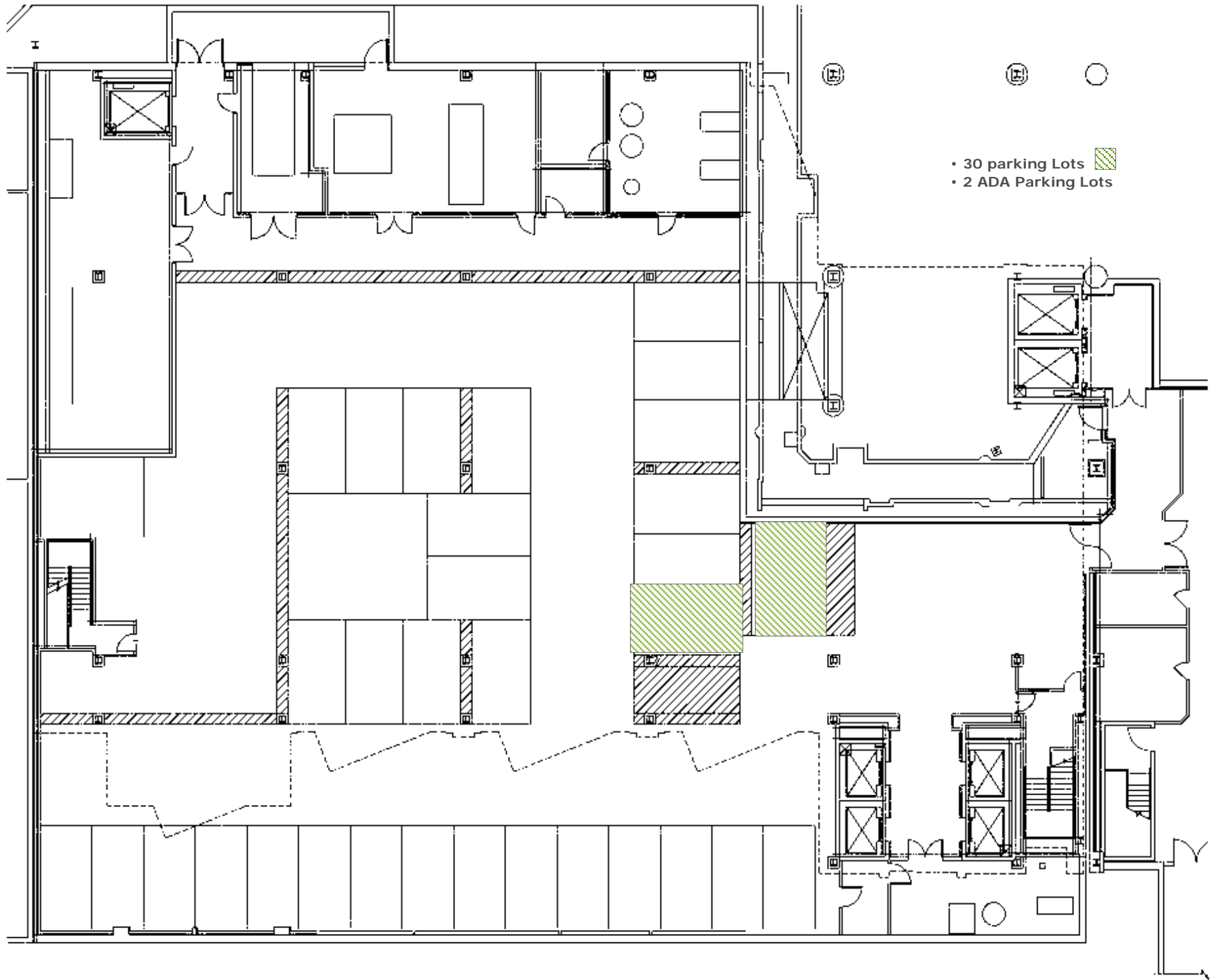


Model

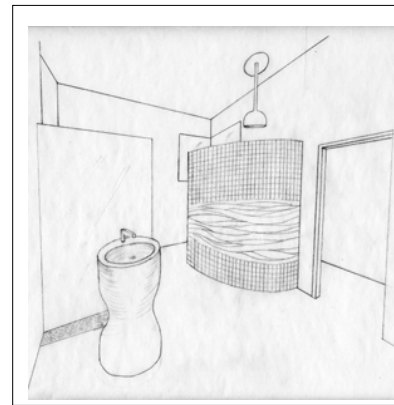
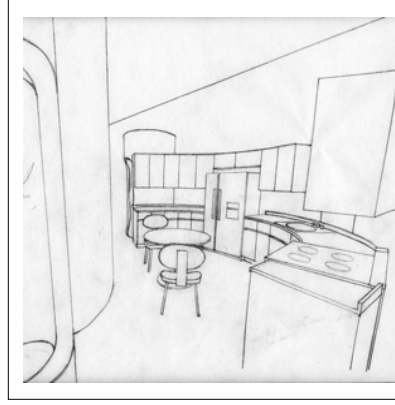
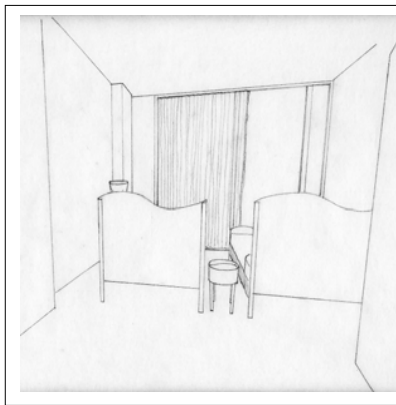
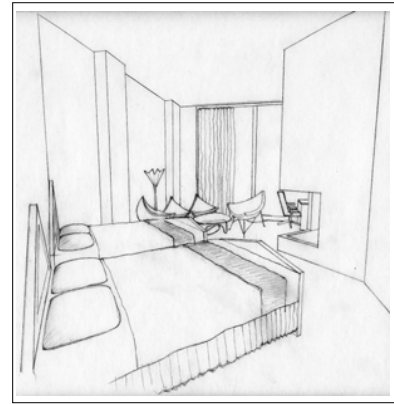
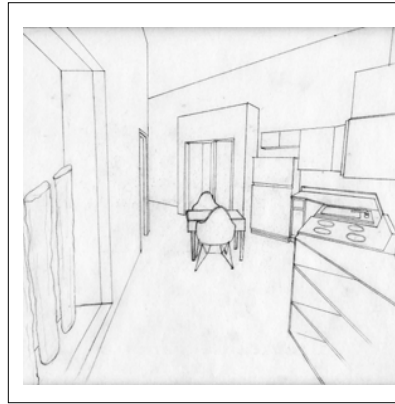
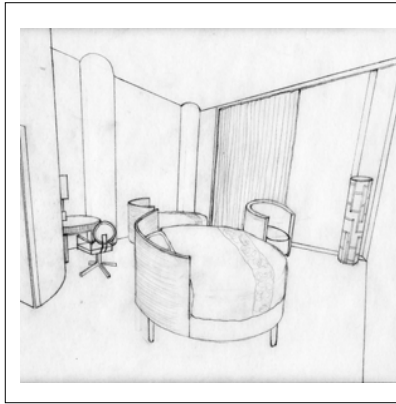
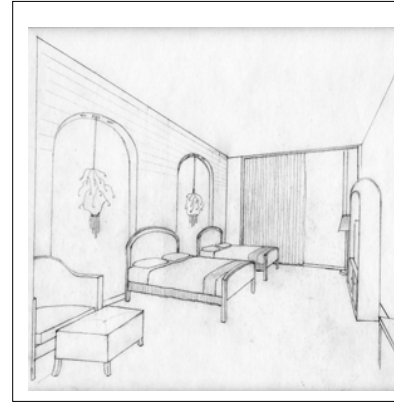
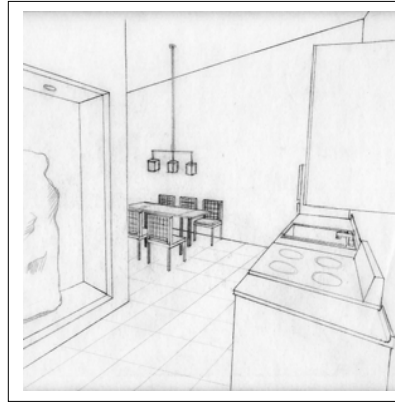
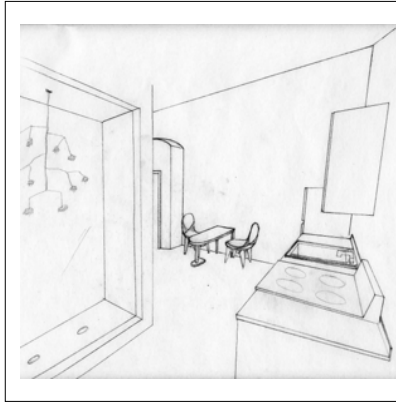


Healing Hotel

Basement – Parking Lots

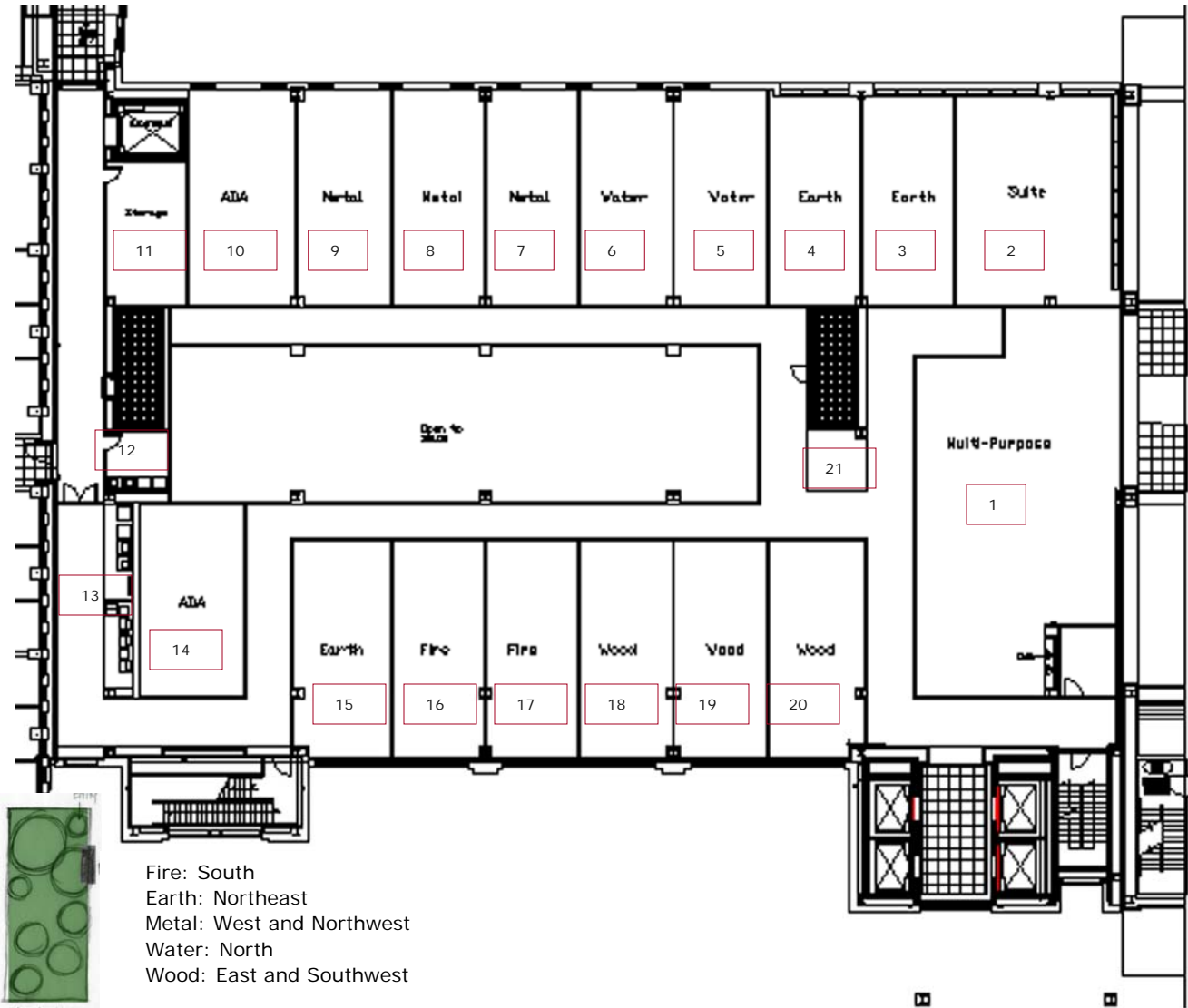


Guestroom Floor

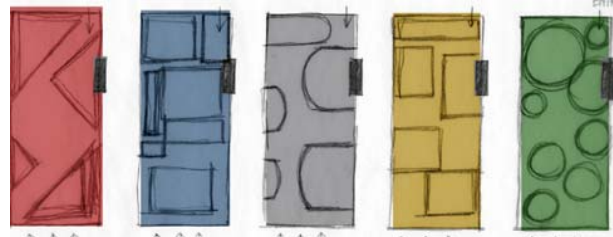


Early Development Sketches

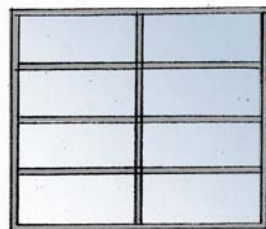
The Guest floor had two options to choose from at the early design stage of the development in which the total number of guestrooms was the same, but the size of the auditorium was different. It made more sense to choose the second option with a larger auditorium since it allowed more natural light into the guest floors, and reinforced the design concept of openness. Furthermore, the central location of the auditorium is based on Feng Shui principles, which balances and encourages good energy movement within the building. The hallway has different colors and signs to indicate the rooms such as fire, earth, metal, water, and wood guestrooms.



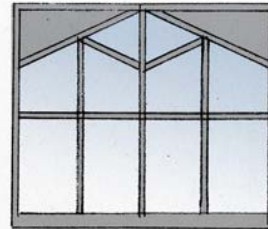
- 1. Multi-Purpose Space 2. Suite 3. Earth 4. Earth 5. Water 6. Water 7. Metal 8. Metal 9. Metal 10. ADA 11. Storage
- 12. Worker's Laundry 13. Guest's Laundry 14. ADA 15. Earth 16. Fire 17. Fire 18. Wood 19. Wood 20. Wood 21. Banding Area



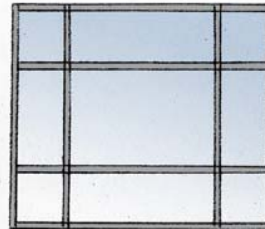
Sketches - Rooms



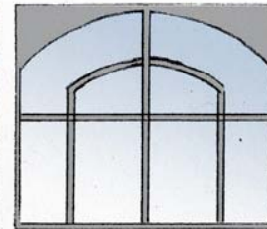
Basic Window Shape



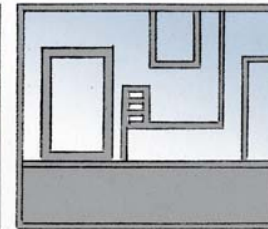
Fire



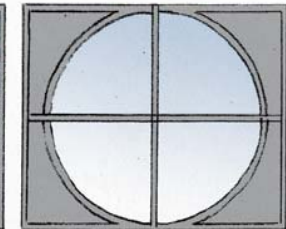
Earth



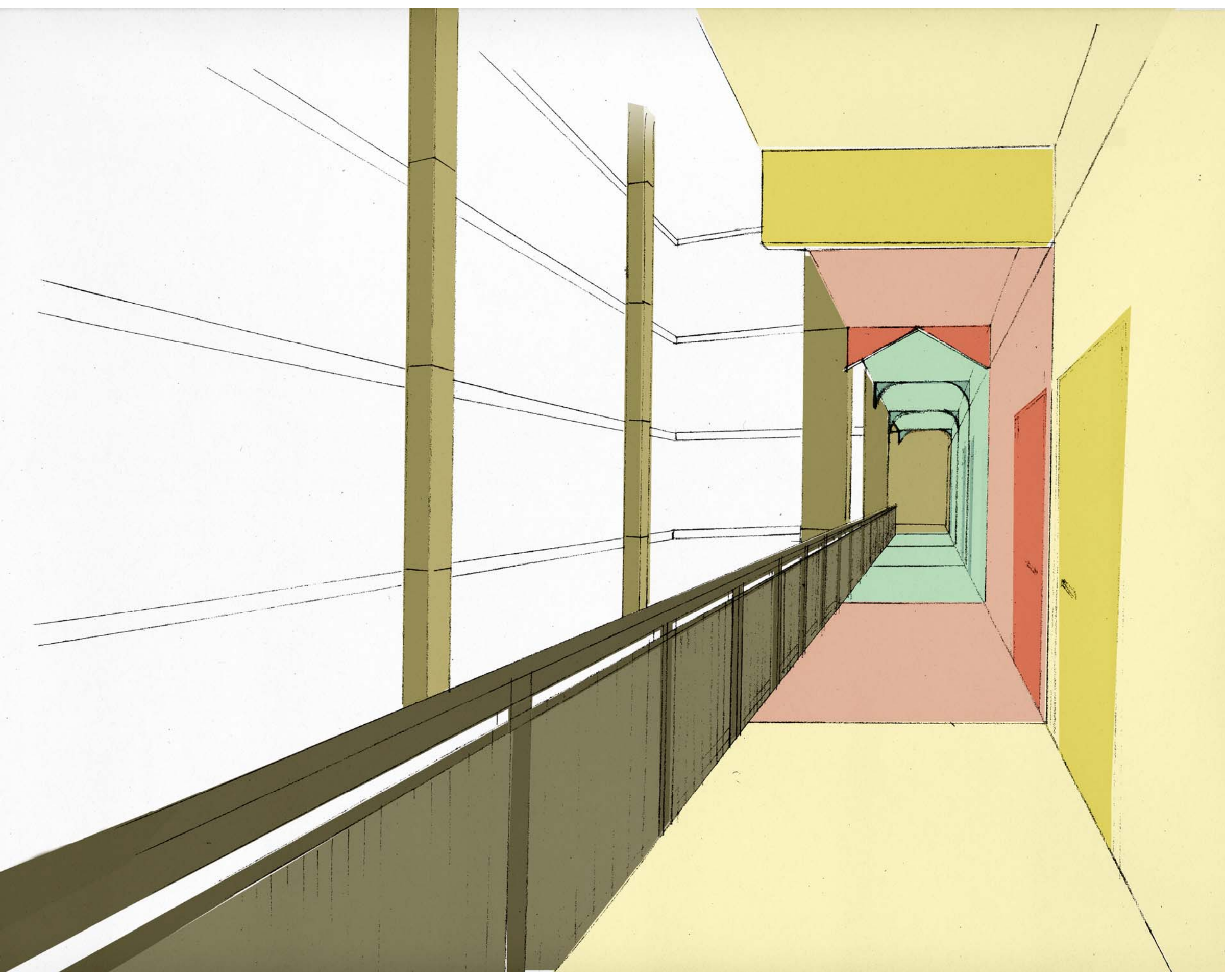
Metal



Water



Wood



Fire - Guestroom



The fire room is based on the triangular shape of the planets. The ceiling has pointed triangular shape, and it is open to the structure ceiling. The room gives the general perception of being on an outdoor deck. Additionally, the fireplace and bathroom shapes are triangular. The selection of seating is also triangle-shaped. The color scheme of this room is red following Feng Shui.

Fire character traits are love, passion, leadership, spirituality, insight, dynamism, aggression, intuition, reason, and expressiveness. Common Fire emotions and qualities are excitement, joy, vanity, jealousy, frustration, regret, grief from loss of love, and disappointment in relationships. The Fire personality is direct--right out front.

Chinese Medicine :

Organ: heart

Role: propels the blood; enfolds the spirit; maintains awareness

Syndromes: cardiovascular diseases; disturbances of speech, thinking, emotional expression; sleep disturbances; collagen deterioration (lupus, rheumatoid arthritis, marfan); dysfunctions of integrative function (psychosis, schizophrenia)

Feng Shui :

Color: red, purple, scarlet, magenta, hot pink, orange

Direction: south

Number: Li (9)

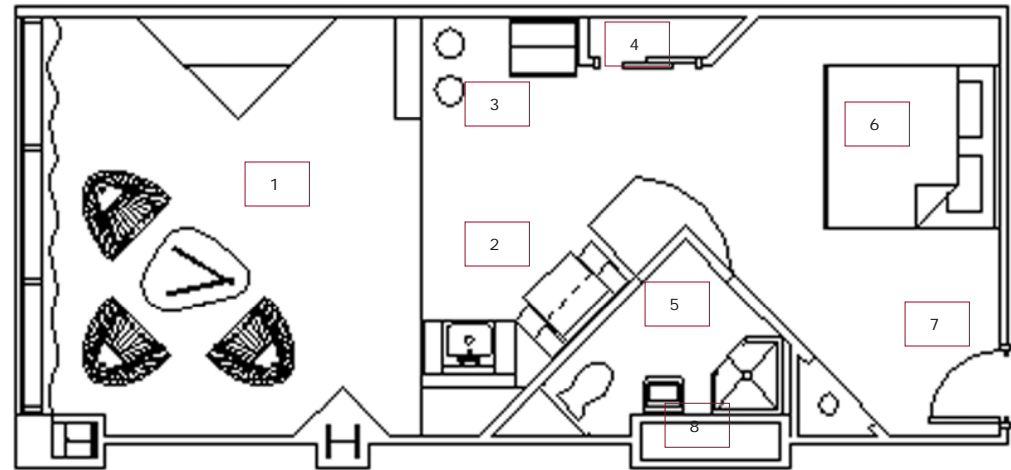
Nature: yang

Season: summer

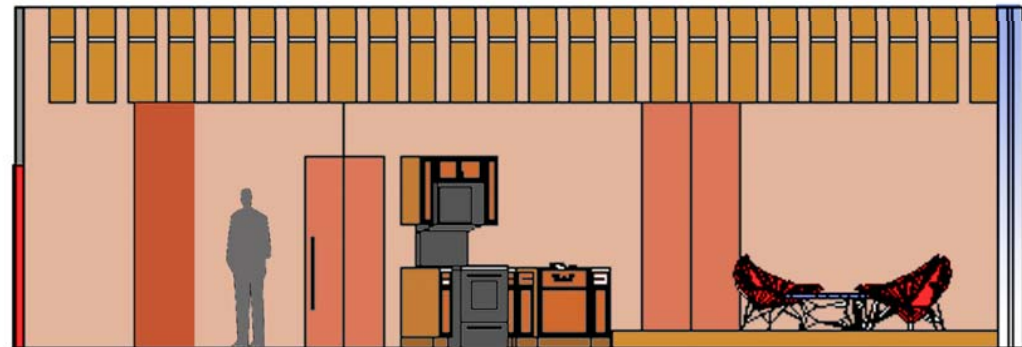
Objects: Bright lights, Sun pictures, Candles, ornaments depicting the sun, Full-spectrum lamps, oil lamps, fireplaces, Feathers, fur, wool, bone

Building Shape: A pointed roof, such as an A-frame

Room: The living room

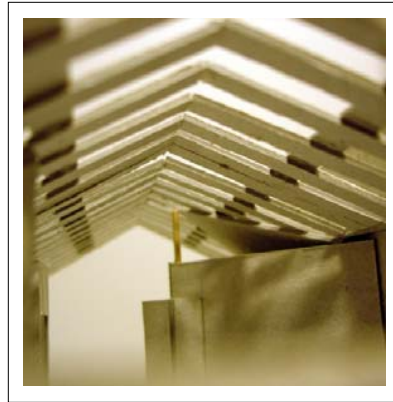
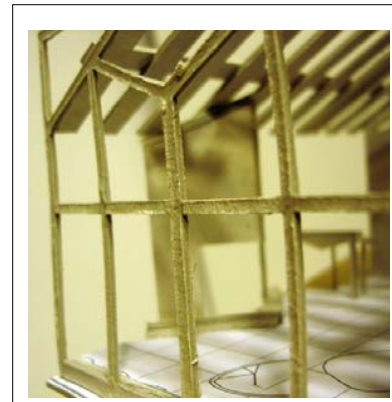
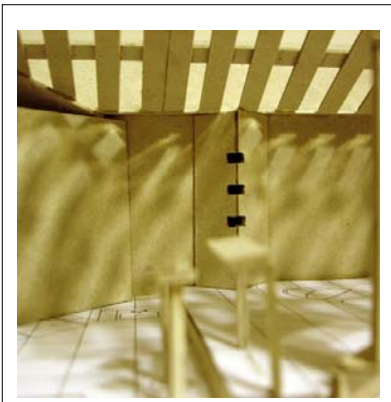


- | | | | |
|----|-------------|----|-----------------|
| 1. | Living Room | 5. | Bathroom |
| 2. | Kitchen | 6. | Sleeping Area |
| 3. | Eating Area | 7. | Entrance |
| 4. | Closet | 8. | Plumbing System |



● South Elevation





Model



The earth room is based on square and rectangular shapes of the planets. The main building material of the room is stone. The dining area is the main focus and shelves with decorative items create a warm and earthy feeling. The color scheme of this room is yellow following Feng Shui.

Earth character traits are stability, practicality, reliability, industriousness, empathy, honesty, kindness, and prudence. Just as we take in nutrients through the stomach, we assimilate life experiences through the element earth. Earth emotions and qualities are pensiveness, worry, thoughtfulness, instinctive awareness, and reflection.

Chinese Medicine :

Organ: spleen

Role: extracts and converts nutrients into Qi and blood; distributes moisture and nutritive essence; contains Qi and blood within their conduits; upholds muscles, flesh, and viscera

Syndromes: disturbances of digestion and absorption; disorders of lymphatic circulation; disorders of fluid distribution or viscosity (lymphatic circulation); diseases of the muscles; disorders of blood and veins

Feng Shui :

Color: yellow, ochre, gold

Direction: northeast; southwest; center

Number: Kun (2); 5; Gen (8)

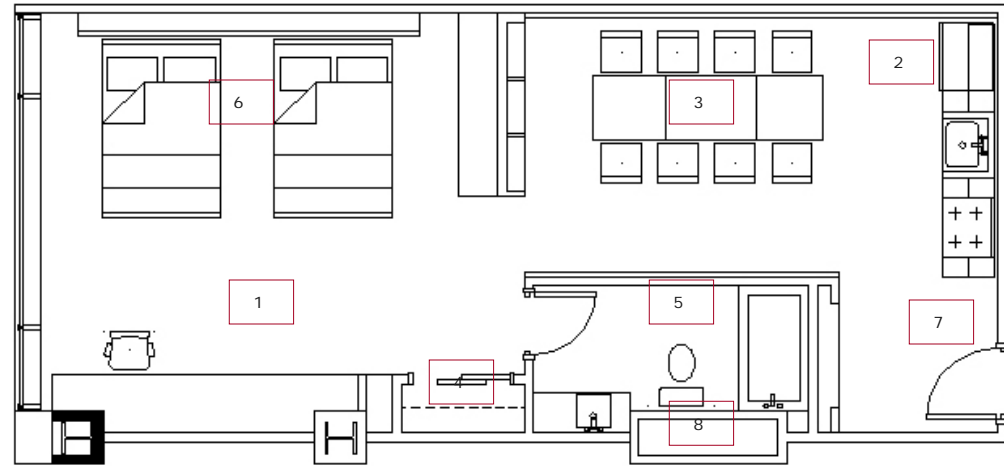
Nature: yang

Season: late summer

Objects: Ceramic pots, Yellow flowers (stems should not be too woody), Plant pots, Bowls, Tiles, Paintings depicting earth scenes hills (care is needed not too many trees) All types of earthenware containers and vases, ceramic pieces, clay tiles, bricks, and adobe

Building Shape: A flat roof and a square or rectangular structure

Room: The dining room

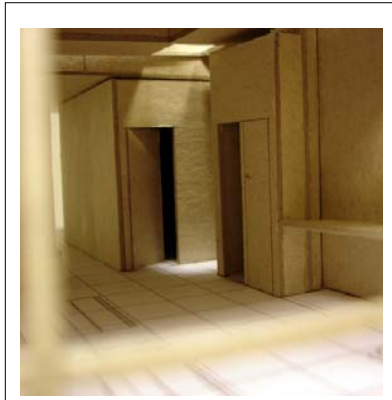
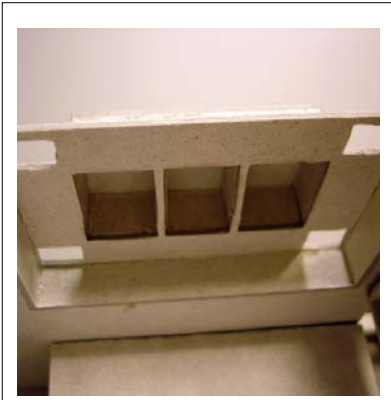
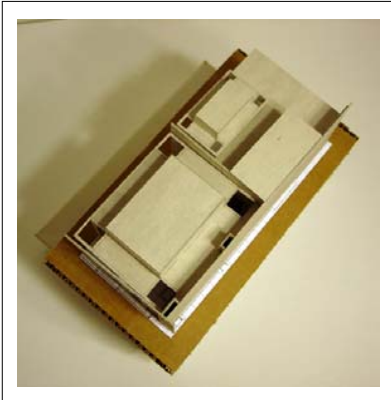


- | | | | |
|----|-------------|----|-----------------|
| 1. | Living Room | 5. | Bathroom |
| 2. | Kitchen | 6. | Sleeping Area |
| 3. | Eating Area | 7. | Entrance |
| 4. | Closet | 8. | Plumbing System |



North Elevation





Model

Metal - Guestroom



The metal room is based on the arch shape of the planets. The ceiling is an arched shape. The up-lights on the bathroom and closet emphasize the ceiling shape. Also, the metal decorative materials on the wall emphasize the room as a metal room. The color scheme for the room is gray and pastel colors.

Metal character traits include strength, independence, focus, intensity, righteousness, and fluency in speech. Common Metal emotions are gratitude, insecurity, inability to achieve parental expectations, or a lack of confidence. The Metal personality is very determined and powerful, with a tendency to be cool and reserved.

Chinese Medicine :

Organ: lung

Role: refines the Qi; establishes rhythm; maintains boundaries and defenses

Syndromes: pulmonary and upper-respiratory disorders; disorders of the skin and mucous membrane; airborne allergies; disorders of fluid circulation; disorders of venous circulation

Feng Shui :

Color: white, silver, light pastels

Direction: west; northwest

Number: Qian (6); Dui (7)

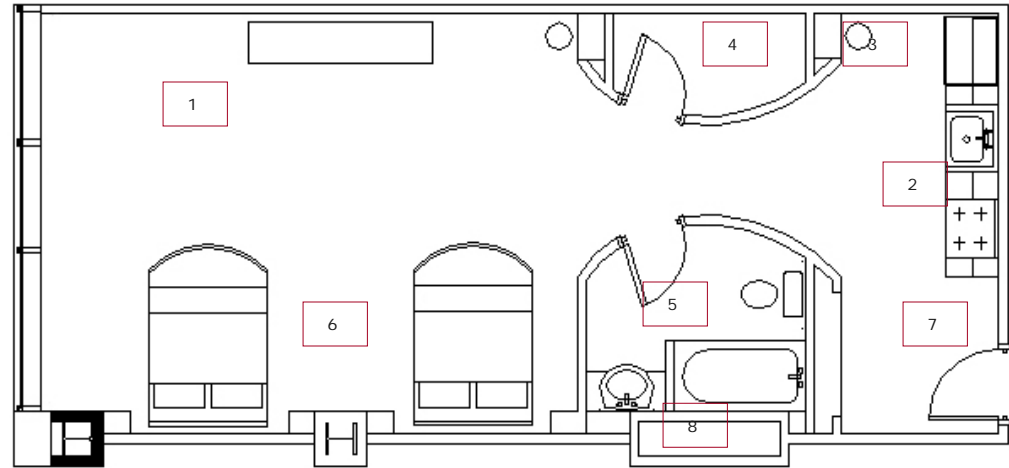
Nature: yang

Season: fall

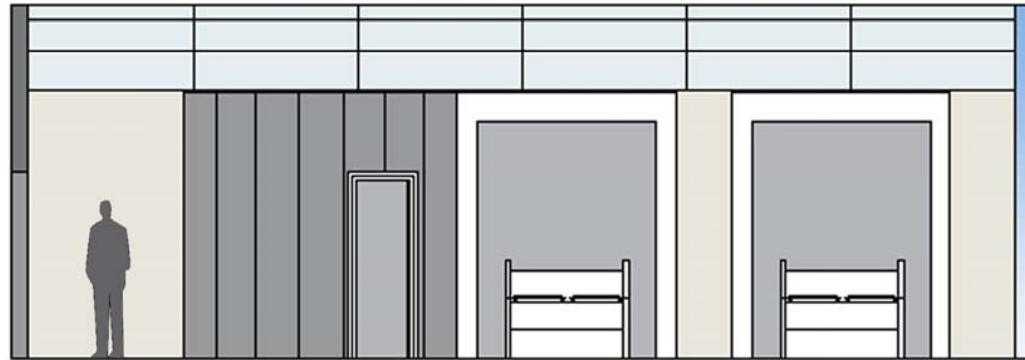
Objects: Wind chimes, bells, jewellery, tools, cutlery and clocks with swinging pendulums, Sculptures made of metal ores including silver, gold, brass, iron, aluminum, copper tin, stainless steel or metal alloys. Rocks, crystals, gems, and semiprecious stones

Building Shape: A domed roof or arch

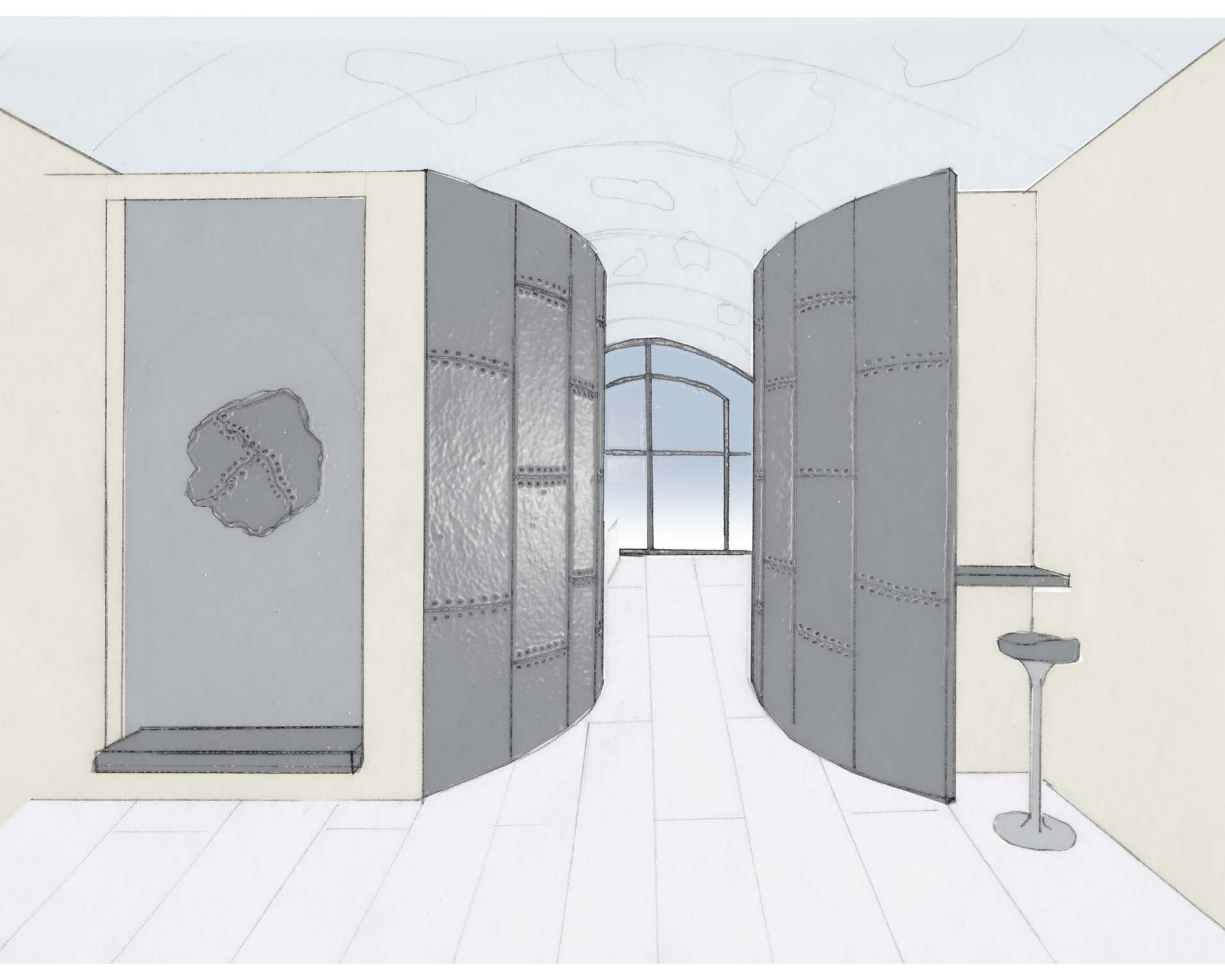
Room: The bedroom



- | | | | |
|----|-------------|----|-----------------|
| 1. | Living Room | 5. | Bathroom |
| 2. | Kitchen | 6. | Sleeping Area |
| 3. | Eating Area | 7. | Entrance |
| 4. | Closet | 8. | Plumbing System |



● South Elevation





Model

Water - Guestroom



The water room is based on detached house and irregular shapes of the planets. Each space is hidden from the other spaces within the room. Kitchen, bathroom and sleeping areas are all separated by hallways. Underneath the hallway, a water fountain decorated with up-lights is running. The bathroom does not have doors that close, but it has a deep wall to create privacy. The color scheme for the room is blue and dark colors.

Water character traits are creativity, wisdom, sensitivity, reflection, persuasion, effectiveness, and desire for life and sex. Water types value family and social contacts and possess the ability to attract others.

Chinese Medicine :

Organ: kidney

Role: generates and stores essence; governs reproduction and growth; balances fluids anchors Qi

Syndromes: disorders of growth and development including problems of fertility, conception, and pregnancy; disorders of central nervous system (multiple sclerosis, muscular dystrophy, cerebral palsy); diseases of spinal column, bones, teeth, and joints; disorders of fluid metabolism

Feng Shui :

Color: Dark colors, including black, blue, and gray

Direction: north

Number: Kan(1)

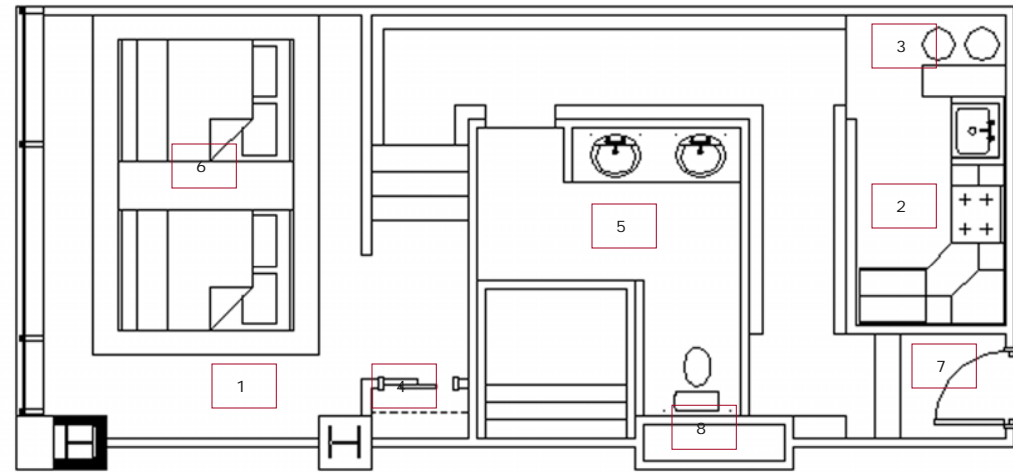
Nature: yin

Season: winter

Objects: Aquariums, Fountains, Clear vases, Water features (care no stagnant water), Glass objects, pictures of water (not too much earth) not stagnant or too rough. All types of reflective surfaces, including mirrors, glass, and cut crystal, Pools, fountains, and aquariums

Building Shape: Detached houses, usual architecture, irregular shapes, and one-of-a-kind dwellings, also dwellings where the front door or entrance is not easily visible

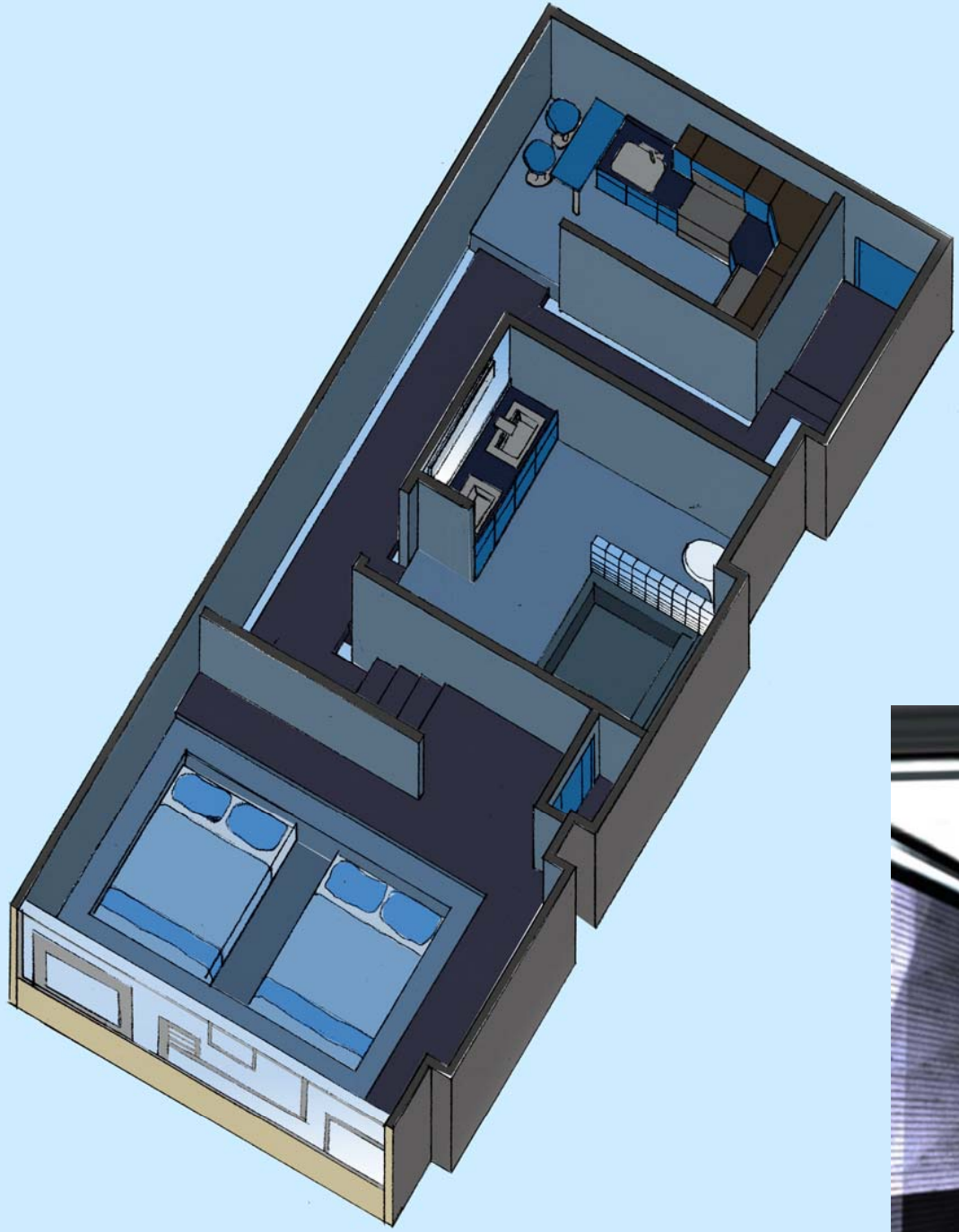
Room: Bathroom

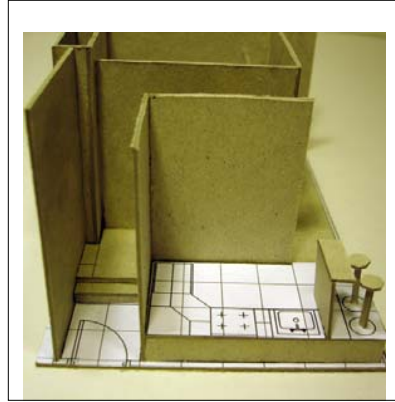
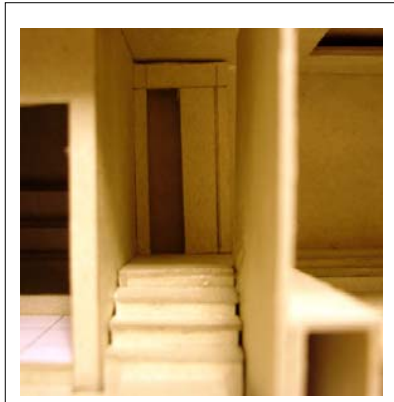
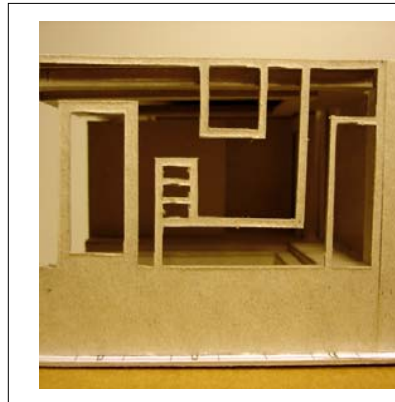


- | | | | |
|----|-------------|----|-----------------|
| 1. | Living Room | 5. | Bathroom |
| 2. | Kitchen | 6. | Sleeping Area |
| 3. | Eating Area | 7. | Entrance |
| 4. | Closet | 8. | Plumbing System |



● North Section





Model

Wood - Guestroom



The wood room is based on the cylinder shape of the planets. Wooden panels run from the floor to the ceiling, and the room has downlights on the ceiling and wall. The beds, kitchen, and bathroom areas are modeled on the cylinder. The basic color scheme is a wood color with greens.

Wood character traits include good decision-making skills, idealism, imagination, compassion, and the ability to create change. Common Wood emotions are kindness, tension, criticism of self and others, discouragement, regret, and repressed anger related to thwarted affection.

Chinese Medicine :

Organ: liver

Role: stores and releases blood; spreads Qi; raises Qi and blood

Syndromes: disturbances of peripheral nerves and circulation; disturbances of equilibrium, coordination, locomotion; migratory pain or swelling; tension, cramps, and spasms of muscles, nerves, and organs; disorders characterized by erratic and irregular function

Feng Shui :

Color: greens including turquoise

Direction: east; southeast

Number: Zhen(3); Xun(4)

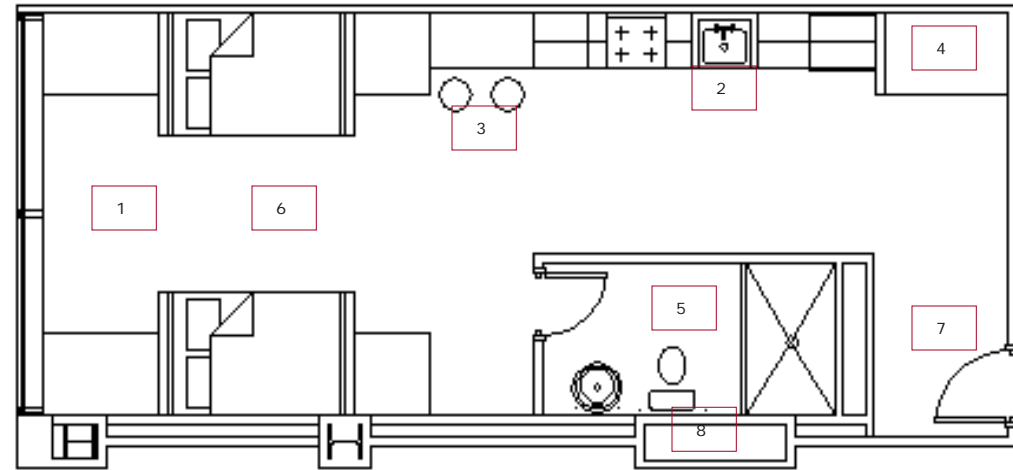
Nature: yin

Season: spring

Objects: Plants, paper, furniture, woody plants (not Bonsai stunted trees), wooden objects i.e.; storage boxes, bowls, vases. Wood furniture, paneling and siding, decks and roofing, fabrics made of natural fibers such as cotton, hemp, and rayon; floral-patterned upholstery fabrics and wall coverings; all indoor and outdoor plants, including silk and other artificial plants and flowers.

Building Shape: A cylindrical structure like a silo

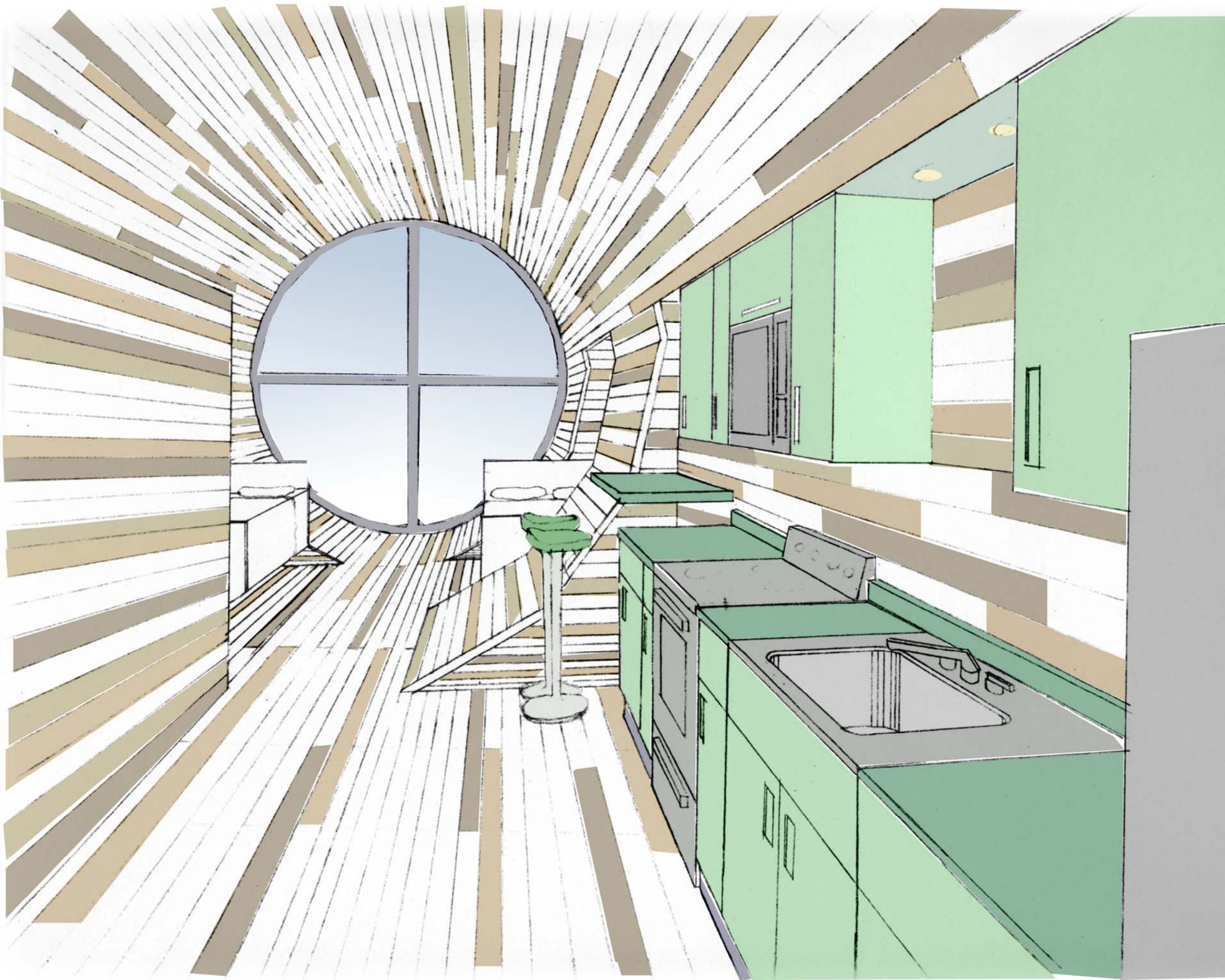
Room: Kitchen

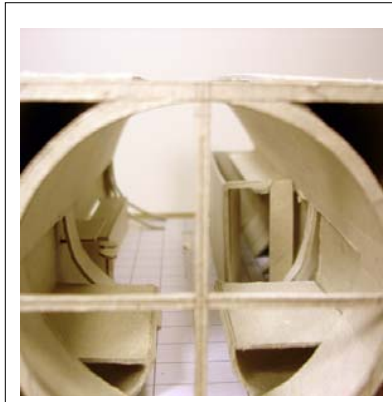
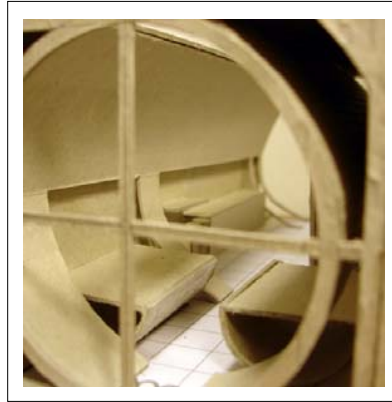
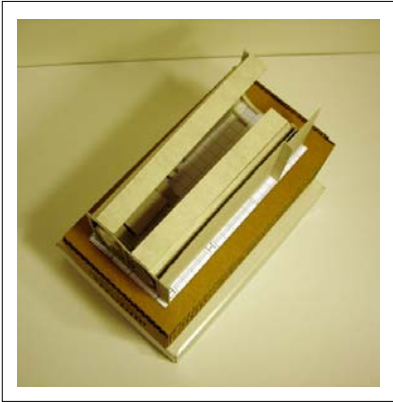


1.	Living Room	5.	Bathroom
2.	Kitchen	6.	Sleeping Area
3.	Eating Area	7.	Entrance
4.	Closet	8.	Plumbing System



● North Elevation





Model



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