Hospital: A Creature of Duality

Gordon McCormick
Virginia Commonwealth University

Follow this and additional works at: https://scholarscompass.vcu.edu/etd
Part of the Art and Design Commons

© The Author

Downloaded from
https://scholarscompass.vcu.edu/etd/3392

This Thesis is brought to you for free and open access by the Graduate School at VCU Scholars Compass. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of VCU Scholars Compass. For more information, please contact libcompass@vcu.edu.
A CREATURE OF DUALITY

SEEKING BALANCE BETWEEN

NATURE AND TECHNOLOGY

IN HEALTH ARCHITECTURE

GORDON MCCORMICK
### Code Overlay

<table>
<thead>
<tr>
<th>Code</th>
<th>Overlay</th>
</tr>
</thead>
<tbody>
<tr>
<td>MANIFESTO</td>
<td>3</td>
</tr>
<tr>
<td>INTRODUCTION TO PROJECT</td>
<td>4</td>
</tr>
<tr>
<td>INTRODUCTION TO SITE</td>
<td>8</td>
</tr>
<tr>
<td>SITE ANALYSIS</td>
<td>10</td>
</tr>
<tr>
<td>CASE STUDIES</td>
<td>20</td>
</tr>
<tr>
<td>PROGRAM</td>
<td>36</td>
</tr>
<tr>
<td>SPACE PLANNING</td>
<td>42</td>
</tr>
<tr>
<td>CONCEPT</td>
<td>48</td>
</tr>
<tr>
<td>DESIGN SOLUTION</td>
<td>64</td>
</tr>
<tr>
<td>THESIS BOARDS</td>
<td>68</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>70</td>
</tr>
</tbody>
</table>

### Contents

1. **Construction Type:** Type 3A
2. **Use:** Group I-3
3. **Occupancy:** 290 max. capacity of building
4. **Height Limitation:** 1 Story
5. **Fire Suppression System:** Quick Response and Resident Sprinklers
6. **Structural Fire Rating:** 1 Hour
7. **Means of Egress:**
   - Number of Stairs: 4
   - Number of Exit Signs: 4 per floor
8. **Accessibility:** 100% accessibility in all dwelling and sleeping areas
9. **Occupancy Load:** 240 SF/person
10. **Number of Bathrooms:** 8 full private bathrooms
11. **Number of Elevators:** 1
12. **Number of Stairs:** 4
13. **Number of Exit Signs:** 4 per floor
14. **Number of Ramps:** 2

---

**Construction Drawings courtesy of Freeman Solt LLC**
There was once a small fishing village situated in a lagoon on the edge of the sea. One day at low tide, some of the fishermen noticed rocks along the shore glistening in the sun. A white, powdery residue had been left by the evaporated sea water. It was salt. Unbeknown to the fishermen, the concentration of sea water in the shallow lagoon had generated a high salinity content. That, combined with the sunshine and the low tide, had created the perfect conditions for harvesting the mineral.

Salt had been around for centuries, used for everything from curing meats to making pickles. It had been known as a commodity since the days of the Pharaohs. As the fishing village grew, so did the demand for salt. But the villagers had no way of transporting it to other parts of the region.

The newly discovered sea salt was also of a much higher quality than its eastern cousin, which was mined from the bowels of mountains. The purity of the sea salt made it even more valuable, and the fishing village soon became a prosperous and wealthy trade center. The salt trade attracted merchants from civilizations throughout the known world.

The fortunes of the village only grew when it put itself on the map. They built a series of canals and bridges, connecting the village to the rest of the world. This made it even more attractive to merchants, who continued to flock to the village, bringing with them new ideas and technologies.

At some point, a villager decided to make preparations in anticipation of future raids. He took his boat out into the lagoon and built a dock far off the coast. There, his family could wait out the raids, stocked with supplies and protected from the elements. The original design was simple—serving merely a functional need. Once he decided to move his family out there permanently, the structure took on a more architectural form. The other villagers followed suit, and soon, the entire town was located on the water.

That town is known today as Venice, Italy. From the crowded canals to the bustling markets, it is a city built on water and on history.
**THESIS STATEMENT**

A hospital is a complex creature. So treating a contemporary hospital involves considering not only scientific advancement, but also aesthetic and philosophical ideals. What was once referred to as a “healing machine” must be reevaluated. It is not an oversimplified concept, but rather a complex one. For these reasons, the concept of a hospital as a “healing machine” must be reevaluated. It is not an oversimplified concept, but rather a complex one.

**INTRODUCTION TO PROJECT**

**PROJECT STATEMENT**

The project is a new hospital that is located to be a part of a new development that will span a total of 290,000 SF that includes parts of the 3rd and 4th floors. This area is situated in the center of the new development and is roughly 12,000 SF that includes parts of the 3rd and 4th floors. The project scope includes a surgical tower, a central support core, and a large communal space that will serve all of the nursing floors. The project capacity for the project involves 290 patients, while the ratio in the floor area will be approximately 3:1.

**PROJECT ABSTRACT**

History has shown that the development of health care is a field that has been formed by the influence of outside forces. These influences appear throughout health care design. Though our health care system is an American one it is a blend of our European and our Asian roots. As the health care delivery system is a cyclical process and must be reevaluated. To understand the inner workings of a hospital, we need to understand the evolving nature of health care architecture in order to adapt or face extinction.

We now and always, in this may way, consider that a typical 101 year old hospital was not a place where health care is provided. People who see the interrelatedness of health care in their own homes.

**DUALITIES**

A house for life's most joyful moments, but also its most tragic.

Provide total privacy while being completely transparent.

A refuge for desperation that sustains hope.

A relaxing environment in a frenzy of activity.

A place of happiness that is never content.

A place of magic, but also one that is always asking new questions.

**PROJECT GOALS**

1. Develop a design solution that can adapt to the evolving health care climate, without the need for significant renovation.

2. Change the role of the hospital from an institution to a real place to one that is more proactive in promoting healthy living.

3. Change the perception of people as the cost, and unaffordable environment to places that are more hospitable, and user-friendly.

4. Incorporate design elements that will challenge health care administrators to explore an environment that is more than the medical gadgets that allow us to heal; it is the tender care of the nursing staff, the technologies of progress, then we must evolve with it. For if a hospital is an organism of healing, then innovation is its lifeblood.

5. Explore opportunities to develop a unique architectural language.

6. Develop a design solution that can adapt to the evolving health care climate, without the need for significant renovation.

7. Change the perception of hospitals as cold, sterile, and uncomfortable environments to places that are more than the medical gadgets that allow us to heal; it is the tender care of the nursing staff, the technologies of progress, then we must evolve with it. For if a hospital is an organism of healing, then innovation is its lifeblood.

8. Incorporate design elements that will challenge health care administrators to explore an environment that is more than the medical gadgets that allow us to heal; it is the tender care of the nursing staff, the technologies of progress, then we must evolve with it. For if a hospital is an organism of healing, then innovation is its lifeblood.

9. Change the role of the hospital from an institution to a real place to one that is more proactive in promoting healthy living.

10. Change the perception of people as the cost, and unaffordable environment to places that are more hospitable, and user-friendly.

**THESIS SUMMARY**

We begin then by defining these dualities with one simple question:

What is a hospital?

A breast of technology, whose greatest ally is nature.

A temple of science that requires both a technological and philosophical background.

A complex art. We can no longer think about hospitals as simply the medical gadgets that allow us to heal; it is the tender care of the nursing staff, the technologies of progress, then we must evolve with it. For if a hospital is an organism of healing, then innovation is its lifeblood.

**DUALITIES**

What is a hospital?

A breast of technology, whose greatest ally is nature.

A temple of science that requires both a technological and philosophical background.

A complex art. We can no longer think about hospitals as simply the medical gadgets that allow us to heal; it is the tender care of the nursing staff, the technologies of progress, then we must evolve with it. For if a hospital is an organism of healing, then innovation is its lifeblood.

**THESIS STATEMENT**

Can a balance be struck between nature and technology so that nature and technology become one instead of being separate entities that react to each other? A question for these reasons, the idea of a hospital as a "healing machine" must be reevaluated. It is not an oversimplified concept, but rather a complex one. For these reasons, the idea of a hospital as a "healing machine" must be reevaluated. It is not an oversimplified concept, but rather a complex one.

Despite this revelation, there is no doubt that the technological advances in science are still evolving. Though we can see the future in the cards that they hold, they work together to help redefine the notion of healthcare, and whether these ideas can influence the design of these facilities, and a situation that demands change--a challenge of the status--a duality.
INTRODUCTION TO SITE

The building was originally the Robert E. Lee Elementary School, designed and built by local Richmond architect Charles Robinson in 1914. In 2003, the building was renovated into an apartment building. Great care was taken to maintain the historical integrity of the building.

EXTERIOR BUILDING ANALYSIS

The building has a strong architectural personality, expressing balance, symmetry and classical ideals such as Palladian windows, a colonnade, a frieze, domes, and expressive stone work.

Construction Drawings courtesy of Freeman Solt LLC.
The way that the tower loft space opens up into the copper dome is such a great feature. The spiral staircase leading up to an unfinished area in the space directly beneath the dome is another interesting element. The relationship between the interior space and the overall architecture is emphasized.

The character of the specific spaces of the existing building suggests a particular layout. The 2-story auditorium would be ideal for an open space from the program. The existing corridor will likely remain, and the alignment of the existing classroom space (currently apartments) would be a good fit for the hospital patient rooms.
The construction of the building took between 2-3 years, and according to Robinson, its completion was achieved despite a great degree of difficulty. Robinson was very demanding of his design, and his ambition helped create a building that was far ahead of its time. The three key features that made the building so unique were the wheelchair ramps, central-air conditioning, and the structure concerning the windows.

It was Robinson’s strong beliefs that compelled him to design such a unique structure. The first of which was his belief in equal access to education. Decades before any form of ADA standards would exist, Robinson placed long and winding wheelchair ramps in the building. The fact that they were located in the two towers of the facade—most prominent architectural feature of the building—emphasizes how strongly he felt about the matter.

Included in Robinson’s design was an central-air conditioning system. What was remarkable about the inclusion of this feature was that air-conditioning had been invented only 10 years before, and was mostly used in industrial refrigeration. Robinson believed that comfort was essential to the learning process, so he therefore took it upon himself to engineer the air-conditioning unit so that the school would be comfortable in the hot and humid months.
Despite its conventional style, the building reflects a forward-thinking mindset, utilizing large concrete lintels to serve as sills for a row of windows. Though the structure was designed and built well before the Modernist Movement, these large, engineered windows foreshadow the curtain-glass windows that would come to characterize architecture of the 20th century.
How has hospital design developed around the world and throughout history? What factors have influenced this development? Has this development followed a steady evolutionary track, or has it been more of a conversation of competing ideas? Have any of these ideas transcended time, still being used today?

In order to move forward, we must understand where we have been, and whether there are any lessons to be learned from those moments. The rise and fall of competing cultures have undoubtedly introduced different ideas concerning architecture, but whether this applies to hospital design needs to be assessed. It could be that great ideas have been lost to the pages of history.
EVOLUTION OF THE HOSPITAL

Greek Asklepieion (Healing Temple)

Asklepieon of Pergamon
Pergamon, Greece
450 BC

Cluny Abbey (Monastery)

Infirmary Expansion
Cluny, France
1043 AD

Bimaristan

Early Persian Hospital (Persian Empire)
Junde-Shapur, Iran
800 AD

Roman Valetundinaria (Military Hospital)

Vindonissa--Roman Legion Camp
Windish, Switzerland
15 AD

Xenodochieon

Early Iberian Hospital
Porto, Portugal
400 AD

Hospitaliers (Knights of St. John)

Medieval Christian Crusade Hospital
Rhodes, Greece
1444-1483 AD

Cross Ward (Greek Cross)

Opesdale Maggiore
Florence, Italy
1456

Palace-Style Hospital

France
17th Century

Estate Hospital

Europe
18th Century

Pavillion-Style Hospital

Herbert Hospital
England
19th Century


(Thompson 5)
(Thompson 18)
(Thompson 30)

quadralectics.wordpress.com/3-contemplation/3-5-hospitals/
Considerable space and engineering were dedicated to the construction and design of the bathing facilities. Water had to be transported via aqueducts from local hot springs. If no hot spring were nearby, then other considerations had to be made in order to heat the water. Part of the bathing ritual was the long trek through a dark hallway, which ended at the baths. The path found at Pergamon is marked on the plan above.

HISTORICAL CASE STUDIES

The Temple of Asclepius at Pergamon

The rod of Asclepius—recognized today as an international medical symbol—derives from this temple.

DERIVED LESSON

Activities such as dieting, exercise, bathing, and exposure to nature are remedies that can decrease the dependency on invasive medical treatments.

These temples were the original healthcare facilities of the western world. Though Greek medicine was quite advanced for its time—including sleep-induced surgeries and prescription medicine—the priests that administered care favored natural remedies over radical intervention. These remedies included a strict diet, exercise, exposure to sunlight and nature, as well as rest and relaxation in the bathhouse after finishing other tasks. To this day, thermal bathing is viewed as a medical treatment rather than recreation. Over a thousand years later, the Roman baths were built at Hadrian’s Villa in Ostia.

DERIVED LESSON

An additional space between patient room and public space can not only serve as a buffer, but can also serve functional needs of the program.

The Temple of Asclepius at Pergamon is the origin of our modern medical system. Based on many of the ideas developed by the Greeks, Asklepions in the Roman world were primary used by the military for soldiers. Therefore, efficiency was the driving factor in the design decisions.

The most interesting of these design decisions was the vestibule (marked in red). Interior doors were not used in Roman design, so in order to keep out dust and noise, vestibules were included to act as a buffer between the patient rooms and corridors.

The Valetudinarium of Vindonissa

The Valetudinarium was the hospital of ancient Roman society. Based on many of the ideas developed by the Greeks, Asklepions in the Roman world were primarily used by the military for soldiers. Therefore efficient performance was the driving factor in the design decisions.

The most interesting of these design decisions was the vestibule (marked in red). Interior doors were not used in Roman design, so in order to keep out dust and noise, vestibules were included to act as a buffer between the patient rooms and corridors.
HOSPITAL OF THE SECOND KNIGHTS OF RHODES
RHODES, GREECE (1481)

Built in the 15th century by the Knights of St. John, this facility provides a glimpse of what may have become a standard in hospital design—had it not been sacked by the Turks some 30 years after its completion. The Knights of St. John—also known as the Hospitaliers—were one of the many fighting forces that travelled east during the Crusades. The Hospitaliers were akin to monks, having taken sacred vows to uphold their religion through physical force. They established a strong connection to nature, perhaps due to their spiritual beliefs, and so incorporated landscape design in their forts, palaces, and, in this case, a hospital. A 2-story central atrium and rooftop garden made of stone were the architectural manifestation of these ideals, while an expansive exterior garden provided walking paths in a more naturalistic setting.

Christian monks maintained cloister gardens, where they grew vegetables to have on their table. When monasteries became the de facto health care facilities of the Middle Ages, these gardens also served as sitting areas, and were sometimes supplemented with walking paths. These areas became opportunities for patients to get outside and establish a physical connection with nature.

The Hospitaliers were one of many fighting forces that travelled east during the Crusades. Their culture was very similar to monks, in that they took sacred vows to dedicate their lives to God. If the monks are thought of as the healing hands of God, then the knights were his fist. Like the monks, the knights seemed to have an affinity for outdoor spaces, as opposed to the cloistered gardens of the monastics. However, instead of small herb gardens, the knights constructed large, exotic strolling gardens. These gardens were not only present in their hospital designs, but throughout their entire fortresses. This design principle created an interesting duality between the violent solidarity of a fort and the lush beauty of a garden landscape.
The project was designed in 2009 by NXT, who partnered with Clemson University’s Healthcare and Architecture Graduate Program. The concept is based on the question, “What would a patient room look like if the architecture, products, technology, and medical processes were all designed in unison?” The idea was to “streamline the delivery of care, eliminate barriers, and enhance the medical experience in the 21st Century.”

Though the project takes inspiration from a futuristic concept, the design is focused around the patient. All surfaces are finished in Corian, which is a non-porous material that’s easy to clean. The modular design of the space allows for instruments, tools, and storage containers to be switched out with ease, so a single room could be outfitted to meet the needs of a specific program. This idea of universal design is extended into the bathroom area, where the partition can slide to accommodate any patient, regardless of the amount of assistance needed.

This project was designed in 2009 by NXT, who partnered with Clemson University’s Healthcare and Architecture Graduate Program. The concept is based on the question, “What would a patient room look like if the architecture, products, technology, and medical processes were all designed in unison?”

The idea was to “streamline the delivery of care, eliminate barriers, and enhance the medical experience in the 21st Century.”

Though the project takes inspiration from a futuristic concept, the design is focused around the patient. All surfaces are finished in Corian, which is a non-porous material that’s easy to clean. The modular design of the space allows for instruments, tools, and storage containers to be switched out with ease, so a single room could be outfitted to meet the needs of a specific program. This idea of universal design is extended into the bathroom area, where the partition can slide to accommodate any patient, regardless of the amount of assistance needed.

This project was designed in 2009 by NXT, who partnered with Clemson University’s Healthcare and Architecture Graduate Program. The concept is based on the question, “What would a patient room look like if the architecture, products, technology, and medical processes were all designed in unison?”

The idea was to “streamline the delivery of care, eliminate barriers, and enhance the medical experience in the 21st Century.”

Though the project takes inspiration from a futuristic concept, the design is focused around the patient. All surfaces are finished in Corian, which is a non-porous material that’s easy to clean. The modular design of the space allows for instruments, tools, and storage containers to be switched out with ease, so a single room could be outfitted to meet the needs of a specific program. This idea of universal design is extended into the bathroom area, where the partition can slide to accommodate any patient, regardless of the amount of assistance needed.

This project was designed in 2009 by NXT, who partnered with Clemson University’s Healthcare and Architecture Graduate Program. The concept is based on the question, “What would a patient room look like if the architecture, products, technology, and medical processes were all designed in unison?”

The idea was to “streamline the delivery of care, eliminate barriers, and enhance the medical experience in the 21st Century.”

Though the project takes inspiration from a futuristic concept, the design is focused around the patient. All surfaces are finished in Corian, which is a non-porous material that’s easy to clean. The modular design of the space allows for instruments, tools, and storage containers to be switched out with ease, so a single room could be outfitted to meet the needs of a specific program. This idea of universal design is extended into the bathroom area, where the partition can slide to accommodate any patient, regardless of the amount of assistance needed.
LATERAL SECTION SHOWING INTERSTITIAL SPACE

LONGITUDINAL SECTION SHOWING INTERSTITIAL SPACE

INTERSTITIAL SPACE DIAGRAM BY EBERHARD ZEIDLER

MCKENZIE TEACHING HOSPITAL
EDMONTON, ALBERTA (1986)

EBERHARD ZEIDLER

LATERAL SECTION SHOWING INTERSTITIAL SPACE

LONGITUDINAL SECTION SHOWING INTERSTITIAL SPACE

INTERSTITIAL SPACE DIAGRAM BY EBERHARD ZEIDLER

29

ENLARGED 3RD FLOOR PLAN--TYPICAL SOUTH PLAN

PATIENT ROOM

CIRCULATION

NURSE AREA

COMMUNAL SPACE

GUEST ROOM

DOES THIS AREA
FUNCTION APPROPRIATELY,
CARE & POST?

CENTRAL NURSING STATION

LARGE MEETING

SMALL MEETING

36' X 30' 2ND FLOOR PLAN--TYPICAL SOUTH PLAN

FAMILY ROOM

MEDS AREA

COMMUNAL SPACE

GUEST ROOM

29
This project was designed in 2009 by NXT, who partnered with Clemson University’s Healthcare & Architecture Graduate Program. The concept is based on the question, “What would a patient room look like if the architecture, products, technology, and medical processes were all designed in unison?”

The idea was to “streamline the delivery of care, improve patient outcomes and redefine the medical experience in the 21st Century.”

**Driving Design**

A high-tech aesthetic can convey competence and a sense of security, but much of it can make a space feel cold and unwelcoming.

**Derived Lesson**

Though a high-tech aesthetic can convey competence and a sense of security, too much of it can make a space feel cold and unwelcoming.
Though a high-tech aesthetic can convey competence and a sense of security, too much of it can make a space feel cold and uninviting.
The facility will serve as a neurological oncology facility. It will offer diagnostic, surgical, and radiology services. The facility will contain 80 beds for inpatient care, but will also emphasize outpatient care to the community.
CONTEXT OF THE PROGRAM

The hospital in this project will be part of an Independent Physicians Association (IPA), which is a type of healthcare network that allows a group of doctors to practice medicine together.

The purpose of an IPA is to coordinate a group of doctors in the performance of professional services for the benefit of patients. Patients can be referred to other doctors within the organization, and in doing so ensure that the patient will not be tied to a large healthcare network. Hospitals will be easier to maintain and typically require fewer resources than a large medical center. In the referring doctor's opinion, the patient will benefit from the best treatment possible.

According to Dr. Richard Graham, a local urological surgeon in Richmond, VA, and one of the most revered surgeons in the state, IPA’s possess a unique opportunity moving forward into the future. As mentioned, an IPA is a group of doctors that can negotiate better reimbursement rates for their patients, which require less financial support. The IPA model is beneficial for both patients and doctors, as it allows for better care and more efficient use of resources.

IPA’s can also serve as a political activist, lobbying on behalf of its members. The collective voice of the IPA has more political influence than a chorus of individual practices. Though IPA’s were initially thought of as a method of creating leverage against insurance companies to receive better reimbursement rates, this is actually illegal and a misconception. What the IPA does do is consolidate numerous practices in a given region into a single voice, empowering the doctors to exert political influence via grassroots movements.

According to Dr. Graham, the hospital in this project will be one of these small IPA facilities. Not only does the 80,000 SF space represent the typical size of a small hospital in a megablock hospital, but the idea of the IPA facility also represents a progressive mentality of this project. The fact of the matter is that the megablock hospital is cumbersome and inefficient, and as communication technology improves the need for spatial adjacencies between hospital departments diminishes. Regardless of whether this IPA model for small hospitals catches on, corporate providers will look to break up their megalithic facilities in favor of smaller, more efficient delivery models that separate functions as a whole.
PATIENT ROOM (PRIVATE)
- Min. 200 SF
- Patient bed
- Headboard
- Overbed table
- Bedside storage for patient
- Bedside storage for nurse
- Natural light/views
- Cleanliness
- Shower/bath
- Toilet/bedpan
- Sink/mirror
- Isolation, when required
- Company, when appropriate
- Seating area
- Sleeping area
- Easy access to nurse call, phone, lighting, bed, and TV controls
- Entertainment/distraction
- TV
- Interaction with nurses
- Interaction with patients
- Interaction with visitors
- Computer with internet

MIN. 150 SF FOR NURSING STATION
- 1 station per 8 patient rooms
- Easy access to patients
- Ability to see patients
- Minimalized walking distances
- Control desk, call systems
- Medication alcove
- Lockers/toilets
- Supervisors office
- Storage closet
- Supplies and equipment
- Treatment room
- Utility room, for clean/soiled operations
- Staff collaboration space
- Serving kitchen
- Ability to move beds, equipment, supplies, laundry in and out of rooms
- Minimum 6 ft width for corridors

COMMUNAL SPACE
- Education
  - Reading
  - Access to archived sources
  - Seminars
  - Scheduled for patients/families
  - Teaching art or horticulture
  - Counseling
  - Mentoring by doctor or nurse
- Therapy
  - Physical activity
  - Walking paths
  - Exercise/yoga classes
  - Thermal bathing
- Mental
  - Reflection space
  - Horticulture
  - Group therapy
  - Counseling
- Socialize
  - Group gathering space
  - Staff, patients, or visitors
  - Small group meeting
  - One-on-one meeting
  - Dining space

INDEPENDENT
- Reading
- Walking
- Reflecting
- Art
- Bathing

INTERPERSONAL
- Mentoring
- Counseling
- Conference/Discussion
- Dining
- Bathing

GROUP
- Seminar
- Exercise/Yoga Class
- Group Therapy
- Group Visits
- Patient Gatherings
- Dining
- Bathing
INTRODUCING THE CONCEPT

THE FOUR CRITICAL ELEMENTS OF HEALING

STRENGTH
REJUVENATION
REFLECTION
OPTIMISM

OVERALL PARTI DIAGRAM
HEALING GARDEN PARTI

STRATEGIES FOR INTERACTION BETWEEN ELEMENTS
CONCEPT DEVELOPMENT

ONE BOLD GESTURE

SUBSEQUENT GESTURES IN RESPONSE

Matt K Hughes
- Thick Wall Thinking
- Cut into Mass
- Series of Intersections
- Tried New Things

View from Everything
Point of Interest
- Remaining Layers

Concept Model #1

Concept Model #2

Narrow Path
- Squeeze Thin Section
- Divides Birds in Transition
- Light & Dark

View from Everything
Point of Interest

Concept Model #3

Concept Model #4

View from Everything
Point of Interest
CONCEPT MODEL #3
TWO TOWERS FLANKING
FOUR RIBS
ASSIGNING THE ELEMENTS

Each of the four healing elements correlates directly with an element of nature.
CONCEPT MANIFESTATION

A SEATING CONDITION FOR EACH HEALING ELEMENT

A ROCK SOLID FOUNDATION -- A CRADLE OF SUPPORT -- A STUDY OF ERGONOMICS

A JOURNEY OF RECOVERY -- A PATH OF ENLIGHTENMENT -- A STUDY OF MATERIALITY
CONCEPT MANIFESTATION

A SEATING CONDITION FOR EACH HEALING ELEMENT

A MOMENT OF THOUGHT—A MOMENT OF INSPIRATION—A STUDY OF EXPERIENTIAL CONDITIONS

CIRCULAR DESIGN PROMOTES INTRUSION—NO EYE CONTACT

MANY POINTS OF VIEWPOINT

A BRIGHT MOMENT OF JOY—THE INSPIRATION TO LIVE—A STUDY OF FORM
CREATING THE SPACE

EXISTING BUILDING: SOUTH FACADE

EXISTING BUILDING: NORTH FACADE

EXISTING STRUCTURE

EXISTING STRUCTURE

EXISTING STRUCTURE

NEW STRUCTURE

NEW STRUCTURE

NEW STRUCTURE

ERASE EXISTING ROOF

REPLACE WITH GLASS ROOF

ADD TWO 12' X 12' MEZANINE DECKS TO FOURTH FLOOR

OVERLOOKING AUDITORIUM

ADD NEW FACADE THAT FOLLOWS EXISTING STRUCTURAL GRID

DEMOLISH REAR FACADE AND INTERIOR AUDITORIUM WALL

PREDEFINED SCOPE

OUTSIDE OF SCOPE

EXISTING STRUCTURE

NEW STRUCTURE

REMOVES EXISTING ROOF

DEMONSTRATES TWO LEVELS THAT ENHANCE EXISTING STRUCTURAL GRID

ADJUST STRUCTURAL GRID TO FOLLOW EXISTING ROOF OVER EXISTING AUDITORIUM
The hospital is inherently a creature of duality. It must be many things, simultaneously: many of which are contrasting characteristics.

A place that has all of the answers, but is always asking new questions.

A temple of science that requires leaps of faith.

A hospital must be a marvel of technology whose greatest ally is nature.

A hospital was the original healthcare facility of the western world. Though radical intervention. These remedies included a strict diet, exercise, exposure to sunlight, prescription medicine--the priests that administered care favored natural remedies over medical treatment.

These temples were the original healthcare facilities of the western world. Though they established a strong connection to nature, perhaps due to the ideas developed by the Greeks Asklepeions, the Romans removed the spiritual aspects from their temples. The Valetudinarium was the hospital of ancient Roman society. Based on many of the ideas developed by the Greeks Asklepeions, the Romans removed the spiritual aspects from their temples. The Hospitaliers--were one of the many fighting forces that travelled east during the Crusades.

The Hospitaliers were akin to monks, having taken sacred vows to uphold their religion, and, in this case, a hospital. A 2-story central atrium and rooftop garden made of stone provided walking paths in a more naturalistic setting.

The rod of Asklepios--recognized today as an international medical symbol--was based upon the water. Part of the bathing ritual was the long trek through a dark hallway, which, if no hot spring were nearby, then other considerations had to be made in order to heat the water. Considerable space and engineering were dedicated to the construction and design of the hot springs. The treatment rooms were long and narrow. The rod of Asklepios--recognized today as an international medical symbol--had it not been sacked by the Turks some 30 years after its completion. The Knights of St. John--also known as the Hospitaliers--were one of the many fighting forces that travelled east during the Crusades.

The Hospitaliers were akin to monks, having taken sacred vows to uphold their religion, and, in this case, a hospital. A 2-story central atrium and rooftop garden made of stone provided walking paths in a more naturalistic setting.

The Hospitaliers--were one of the many fighting forces that travelled east during the Crusades.

The Hospitaliers were akin to monks, having taken sacred vows to uphold their religion, and, in this case, a hospital. A 2-story central atrium and rooftop garden made of stone provided walking paths in a more naturalistic setting.

The Hospitaliers--were one of the many fighting forces that travelled east during the Crusades.

The Hospitaliers were akin to monks, having taken sacred vows to uphold their religion, and, in this case, a hospital. A 2-story central atrium and rooftop garden made of stone provided walking paths in a more naturalistic setting.

The Hospitaliers were akin to monks, having taken sacred vows to uphold their religion, and, in this case, a hospital. A 2-story central atrium and rooftop garden made of stone provided walking paths in a more naturalistic setting.

The Hospitaliers--were one of the many fighting forces that travelled east during the Crusades.

The Hospitaliers were akin to monks, having taken sacred vows to uphold their religion, and, in this case, a hospital. A 2-story central atrium and rooftop garden made of stone provided walking paths in a more naturalistic setting.

The Hospitaliers--were one of the many fighting forces that travelled east during the Crusades.

The Hospitaliers were akin to monks, having taken sacred vows to uphold their religion, and, in this case, a hospital. A 2-story central atrium and rooftop garden made of stone provided walking paths in a more naturalistic setting.

The Hospitaliers--were one of the many fighting forces that travelled east during the Crusades.

The Hospitaliers were akin to monks, having taken sacred vows to uphold their religion, and, in this case, a hospital. A 2-story central atrium and rooftop garden made of stone provided walking paths in a more naturalistic setting.

The Hospitaliers--were one of the many fighting forces that travelled east during the Crusades.

The Hospitaliers were akin to monks, having taken sacred vows to uphold their religion, and, in this case, a hospital. A 2-story central atrium and rooftop garden made of stone provided walking paths in a more naturalistic setting.

The Hospitaliers--were one of the many fighting forces that travelled east during the Crusades.

The Hospitaliers were akin to monks, having taken sacred vows to uphold their religion, and, in this case, a hospital. A 2-story central atrium and rooftop garden made of stone provided walking paths in a more naturalistic setting.

The Hospitaliers--were one of the many fighting forces that travelled east during the Crusades.

The Hospitaliers were akin to monks, having taken sacred vows to uphold their religion, and, in this case, a hospital. A 2-story central atrium and rooftop garden made of stone provided walking paths in a more naturalistic setting.

The Hospitaliers--were one of the many fighting forces that travelled east during the Crusades.

The Hospitaliers were akin to monks, having taken sacred vows to uphold their religion, and, in this case, a hospital. A 2-story central atrium and rooftop garden made of stone provided walking paths in a more naturalistic setting.

The Hospitaliers--were one of the many fighting forces that travelled east during the Crusades.
BIBLIOGRAPHY


IMAGE APPENDIX


Roman Valetundinaria

Greek Asklepeion

Xenodochieon

Cluny Abbey

Opesdale Maggiore

Vindonissa Plan

Patient Room 2020 Concept Images

Mckenzie Teaching Hospital Images

Interstitial Space Diagram

London Bridge Hospital Images

Ford Foundation Perspective

Soapstone Swatch
THANK YOU