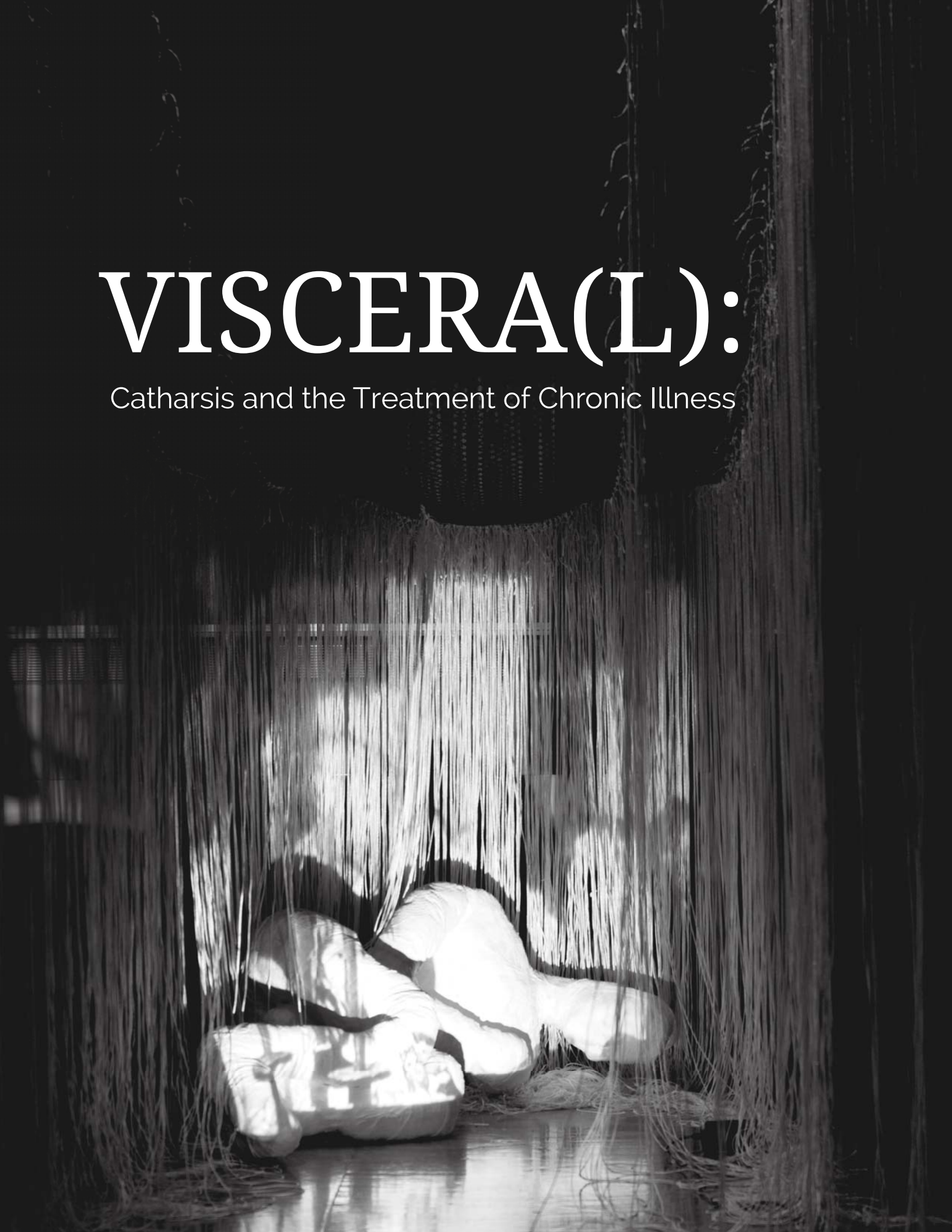
VISCERA(L):

Catharsis and the Treatment of Chronic Illness



Seemingly out of nowhere nine years ago during my early days of college, I began to feel dangerously sick to my stomach on a consistent basis. I had never experienced anything like this before. Think of the worst stomach virus and flu you've had in your life. Now imagine having them both at the same time, that's what I was feeling. It became rather clear this wasn't a bug that would eventually pass and, despite my initial suspicions, it wasn't the campus food - this was something else. My symptoms started at 15 years of age and I ignored them, I was embarrassed. It wasn't until 3 years later that my blood count and thus blood pressure started to cause me to faint. I finally had no choice but to address the symptoms.. However, no one was aware that I had this invisible illness. Although school was stressful, the most stressful thing I had been dealing with was my sense of urgency I was not able to control. I had a very hard time controlling when I needed to use the restroom, which became very embarrassing. I am glad that I found this website and was able to read stories of many people going through or gone through similar experiences. I always find it hard to discuss my experiences with Ulcerative Colitis (UC) with family/friends as they don't understand the physical and emotional impact the disease has on you. I feel like my youth was taken away from me the moment I was diagnosed with this illness, I cried for nights upon nights, I prayed and prayed until my knees went out, I kept asking why me, how? When? Where? What was it? What did I do, who did this to me... I felt sooo alone, Nobody understood, when I first was diagnosed I sat in the hospital for 7days straight. I never was able to cope with what happened to me when I was 19. I just didn't talk about it and handled it the only way I knew how. I pretended like it wasn't that big of a deal and told myself that someone out there has an even bigger problem then me. I've always refused to play the victim. I cant just sit around with my head in my hands crying. I use anger as my outlet. So when I come off resistant and frustrated that's my way of releasing pain. I need to tell my story because I cant run away from Ulcerative Colitis anymore. It took many months, several doctors and even more days and nights of lying in the fetal position on my bed (or the floor) from the intense pain, before I was finally diagnosed properly and I've heard them all from, "It's all in your head" to "It's just gas". It was devastating news to fathom, especially when I asked the question, "How do I fix it?" and the doctor replied "Unfortunately there is no cure". Crohn's is considered by some to be an invisible disease. More often than not I will look fine on the outside as I deal with my daily grind, and I prefer it that way. There isn't a day that goes by that I don't have to plan out as much as possible to ease my worries. Will I be able to work today? Can I still go on my weekend getaway? What's on the menu of the place where my friends want to eat tonight? What kind of transportation will be available? How much time will I be spending without access to a restroom? Who lives nearby in case I need to make an emergency exit? If I eat now, will I feel alright later? These are just a few of the things that cross my mind each and every day. Seemingly out of nowhere nine years ago during my early days of college, I began to feel dangerously sick to my stomach on a consistent basis. I had never experienced anything like this before. Think of the worst stomach virus and flu you've had in your life. Now imagine having them both at the same time, that's what I was feeling. 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Viscera(l)

Viscera n. the internal organs in the main cavities of the body, especially those in the abdomen being that of the intestines

Visceral a. Relating to the deep inward feelings rather than to the intellect

A Design Thesis submitted to the Department of Architecture and Landscape Architecture of North Dakota State University by Gretta Berens. In partial fulfillment of the requirements for the degree of Master of Architecture.

May, 2017, Fargo, North Dakota

Primary Thesis Advisor

Thesis Committee Chair

Viscera(l):

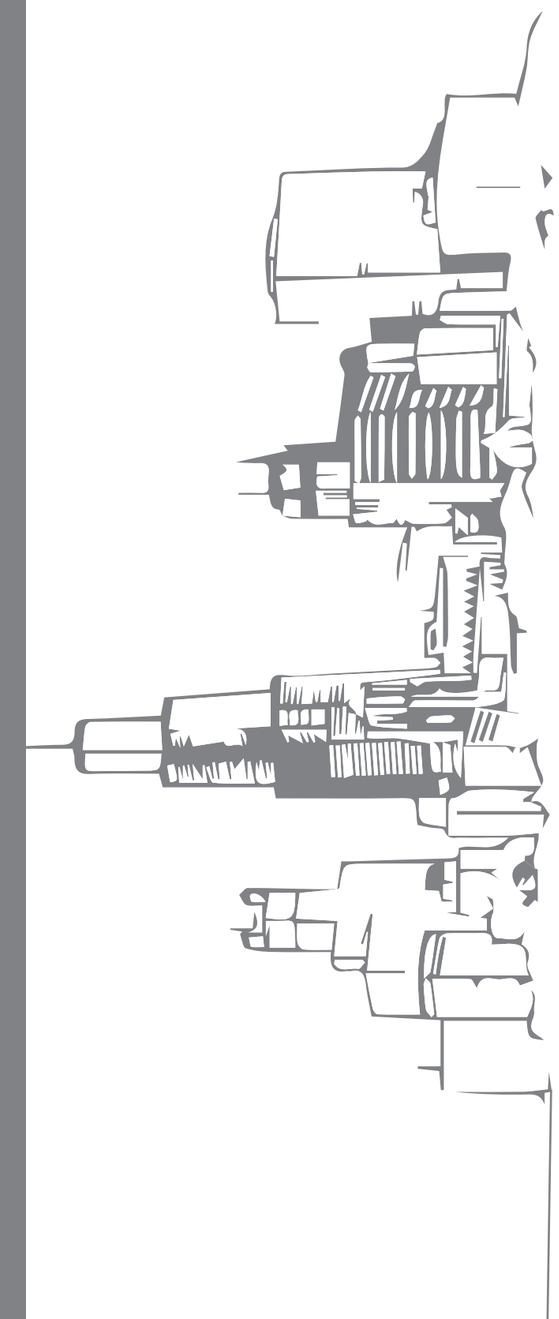
Catharsis and the Treatment of Chronic Illness

Catharsis

noun
/kəTHärsəs/

1. the process of releasing, and thereby providing relief from, strong or repressed emotions.
2.Purging of emotions of pity and fear that are aroused in the viewer of a Greek tragedy

CONTENTS



LIST OF TABLES & FIGURES

Abstract, Narrative, & Research Paper

A collective introduction of the design thesis that outlines the goals, emphasis, and precedent.

ABSTRACT

Chronic disease represents the most extreme case of illness simply because it cannot be taken away. Irritable Bowel Disease (IBD) has remained primarily invisible from society, forcing its 5 million patients to fluctuate between hospitals and clinics in search of facility more attuned to the care they need. Taking lessons from the Greek theater and the catharsis evoked by tragedies, the architecture is designed to treat the individual with care and go beyond the over-sensitive, sterilized nature of healthcare architecture.

By evoking a deeply corporal experience, the Edgewater IBD Treatment Center, in Chicago, Illinois, strives to attune inner and outer worlds in the patients progression towards health. The sick individuals take their own path through the layers of clinical, public, and private space. Weaves of ramps, veiled light, and earth's darkness transport visitors through the interior to the patient who rests amongst the twilight. The architecture, through its angled and perplexing geometry, places the body in-between sky and ground and pain and comfort causing one to be sensitive and aware to the visceral emotions within us. The center brings the human body and its emotions back into the environments that are designed to heal them.

We may ask ourselves, "how can the physical environment aid in rediscovering the equilibrium of health for individuals suffering from a chronic disease?"

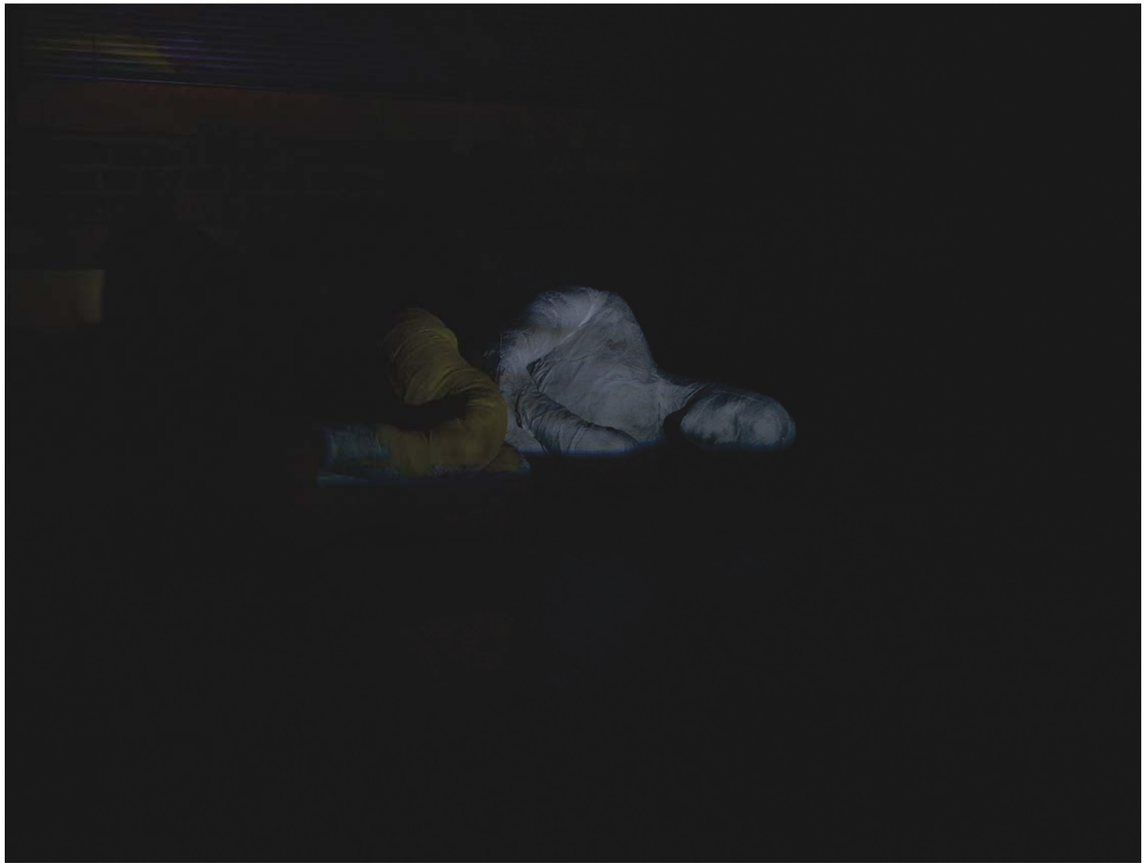


Figure 1.0

NARRATIVE

Viscera is a term that defines the internal organs in the main cavities of the body, especially those in the abdomen being that of the intestines. Visceral is termed as the deep inward feelings rather than the intellect. Those diagnosed with Irritable Bowel Disease experience flare-ups that result in an overall lack of privacy and control.

Greeks termed the inward parts of the body (or intestines) as the splanchna, an item commonly sacrificed from animals to the Gods in moments needed for clarity and distinguishing. Poets utilized this term to describe the external activities of everyday life such as sleeping. The work places the visceral language of the patient into the external environment to find clarity in life's most disabling time.

Technology has created both a hindrance and need in our modern health care practices. Although it helps us administer medical care, it also takes us away from the senses of the body that great thinkers such as Vitruvius established. After Galileo and the Scientific Revolution, however, science could substitute an idea for an experience causing the celestial and the physical worlds to become equal in nature and removing the precedent the Greeks established. This challenged philosophy and science by separating the mind versus the body and the mind versus perception leading to the detachment of modern man from the universe and truth from reality causing the overall developments of modern science. The disorientating noises, the poking and probing of devices cause our healing to stall versus flourishing back to an equilibrium of our health. The cyclical design depicts the story of disease from conception to acceptance embodying the fluctuation of the diagnosed from normalcy to sickness through their medical flair ups.

The architecture exhibits the nature of the built environment through our total senses versus the sterile nature of common hospitals. The confrontation of the work, through our body, evokes a sudden feeling that causes unease and enjoyment simultaneously depicting the spirit of a well staged Greek drama. As humans, each night we attempt to return to the place of warmth and stimulus free environment we once knew before our birth. This is the place we find most tied to our perceptions of home. Bachelard describes the essence of home stating that, "the chief benefit of the house is that it shelters daydreaming, the house protects the dreamer, the house allows one to dream in peace." The moods of our homes depict where we are most at ease in the external environment.

Buildings became aesthetic objects during the current digital and materialist age judged for their visual characteristics, but is it important to understand that atmosphere has historically been a central element of "good health." By enhancing the mood of the environment, we can "find ourselves in the world." Chronic disease is incurable and cannot fade away with time like invisible ink. It creates a lasting impression, one that starts at the of confrontation of disease and is carried with the patients through time. The built environment invites visitors in such that one must face sickness and make an active, individual choice on their limitations. It pulls your body in towards its splanchna into the drama of the piece's performance through a duality of distraction and healing.

In the Greek drama, The Trojan Women, the chora (a location or setting with which one draws connection to) was not timeless and indestructible but instead incredibly vulnerable similarly to how a chronically ill patient feels about their body. In this play, the character Hecuba lays imprisoned lying on the ground mourning the loss of both her husband and home. She wallows out the words, "There is no sorrow in all of the world that is not my sorrow" as a woman who has lost everything. This statement remains as relevant today as it was centuries ago by depicting the real-life suffering enabled by the popular beliefs of war and treatment of people within society. A feeling that similarly could be said for the ill who lay on their ground in hopes of a better understanding and care for the sickness within them that they too mourn. Modern society has turned a blind eye to the way in which our environment has been disabling our fluid path towards an equilibrium of health. A healthcare experience that roots us in the world and flourishes the human senses can be achieved through finding the right balance between Modern Science's technology, the implementation of nature, and the regaining of patient-control. As Perez Gomez states, "I enter a building, see a room, and – in the fraction of second – have this feeling about it."

This poses the question; how do patients reach equilibrium in an unhealthy versus a healthy environment?

DESIGNING COMFORT FOR CHRONIC DISEASE

The Study of Implementing Customize, Life-Long Care

A diagnosis of Inflammatory Bowel Disease (IBD), most commonly Crohn's Disease (Crohn's) and Ulcerative Colitis (UC), can result in an overall loss of control and privacy for patients. With the current community view of the IBD patients' health, those diagnosed are forced to bounce around from hospital to clinic to laboratory and back again throughout their lifelong battle with a chronic disease. Patients are frustrated with the lack of knowledge and preparedness that physicians have at most of their local care facilities. This creates an inadequacy, brought on by the lack of a building typology that speaks depth for treating and supporting IBD, which results in discomfort, a sense of shame, and a poor quality of care. Thus, a digestive health center that treats individuals through customized care; not just as a disease or a patient but the individual person, by an integration of nature, an optimization of patient control, and an implementation of recent technology for communication and discovery becomes a necessity.

The Invisible Disease

"It took many months, several doctors and even more days and nights of lying in the fetal position on my bed (or the floor) from the intense pain, before I was finally diagnosed properly and I've heard them all from, "It's all in your head" to "It's just gas". It was devastating news to fathom, especially when I asked the questions, "How do I fix it?" and the doctor replied "Unfortunately there is no cure."
- jack31373, diagnosed in 1988 with Crohn's

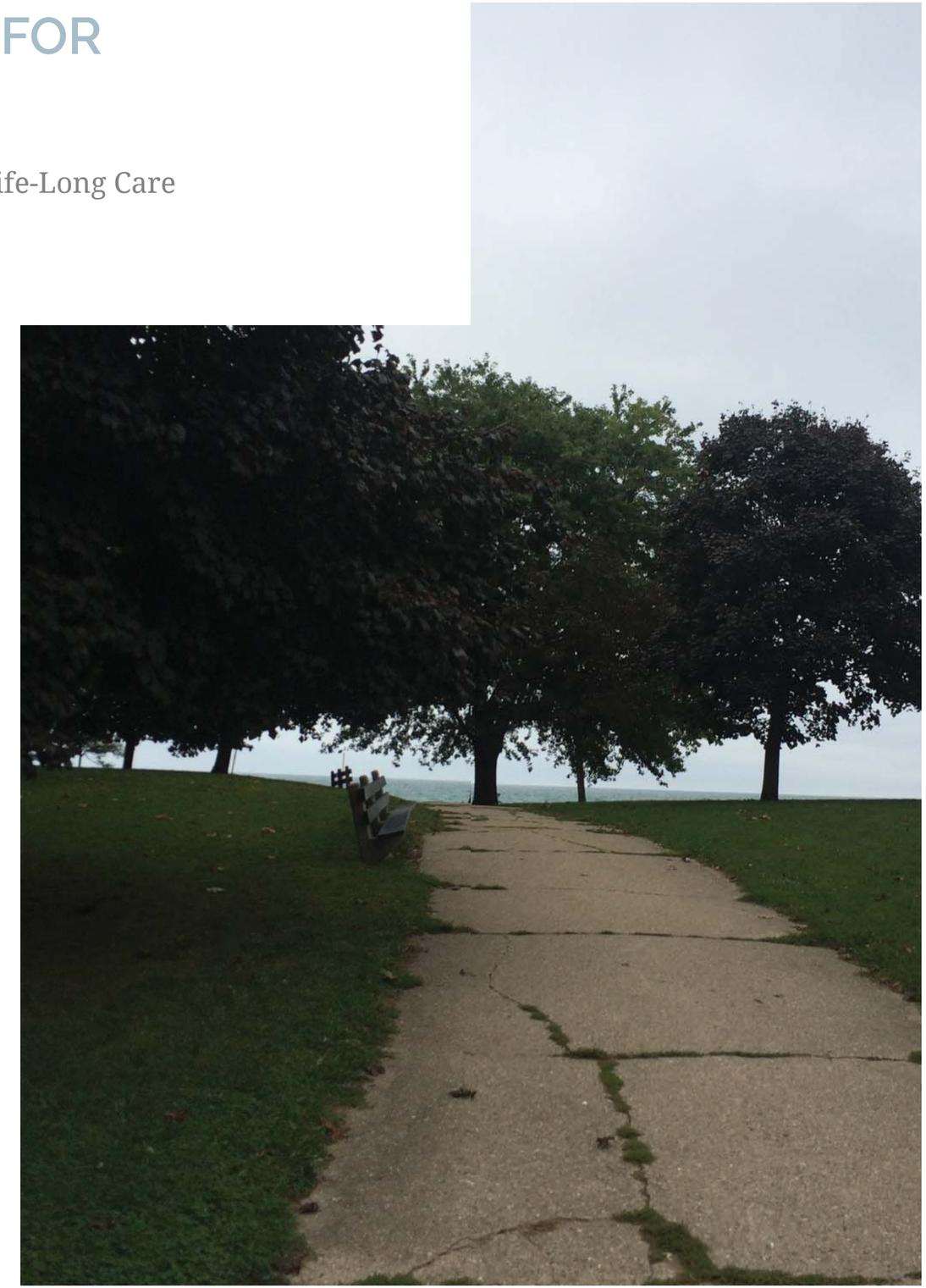


Figure 1.1

1.6 million Americans have been diagnosed with UC and Crohn's with a growth of 70,000 people being diagnosed every year commonly between the ages of 20-30 years old ("Ulcerative Colitis Statistics," n.d.). Ulcerative Colitis and Crohn's are chronic, incurable, diseases with no clear reasoning or evidence to understand why certain people are affected. Patients go through periods of remissions and life-disabling flare ups in a cycle similar to those who have been diagnosed with cancer. Crohn's disease affects any part of the gastrointestinal (GI) tract, ranging from the mouth to the anus, causing inflammation throughout. Ulcerative Colitis, on the other hand, solely affects the large intestine (colon) and the rectum with inflammation in the innermost layer of the lining of the intestine. These conditions go by the phrase 'invisible diseases' because although there are no visible reactions, the body is attacking itself from the inside causing patients daily emotional, mental, and physical pain. General symptoms include; frequent diarrhea, harsh abdominal pain, rectal bleeding, urgent need to move bowels, fever, loss of appetite, weight loss, fatigue, night sweats, and loss of normalcy. As a result, it significantly affects patient's quality of life and finances. The Crohn's & Colitis Foundation of America states that, "In 2004 there were more than 500,000 physician office visits in the United States for Ulcerative Colitis and 800,000 for Crohn's disease" ("CCFA," n.d.). While at the same time, "35,000 hospitalizations occurred specifically for [UC] and 57,000 for Crohn's" ("CCFA," n.d.). Not only is there a consistent and overwhelming need to seek medical care for these diseases on a yearly basis, that number of office visits is increasing as much as 74% per year. Patients require constant help from physicians, nurse practitioners, physician assistants, nutritional services, health coaches, psychological services, mind body medicine, stress management, educational programs, surgery, endoscopy, infusion therapy, latest research, medications, and latest trials. IBD is in need of a multidisciplinary approach under one roof that manages understanding every individual patient's needs similar to that of the current mentality for cancer centers. With so little understood of this condition, it is of the valuable to provide a comfortably designed health care center that it enables patients to create a community that pushes towards overall health and future discovery.

Defining Healing

In order to design for a patient-centric, holistic facility, it is vital to comprehend what it entails to do so. Healthcare, traditionally, was designed for the primary function of the delivery of health care services. The modern approach of healing environments, or psychologically supportive healthcare environments, is making a significant difference in the time frame in which patients recover or adapt to specific chronic and acute medical conditions. Designing these spaces reinforces excellent quality of clinics, labs, and healthcare structures in contrast to an inferior one that detracts from the qualitative level of care. The three dimensions of healing physical environments that effect patient experience are distinguished as: “architectural features (spatial layouts, room size), ambient features (lighting, odors), and interior design features (color, artwork, and indoor plants)” (Harris, McBride, Ross, & Curtis, 2002). Understanding these stimuli will allow individuals to design healthcare environments that generate overall benefits and not deterrents. It is important to understand that when a patient is hospitalized there is an association with feelings of fear, uncertainty and anxiety. Supportive design strives to create projects that “reduce anxiety and stress, which can be major obstacles to healing and can affect the well-being of patients, families, and staff” (Carpman & Grant, 2016). This type of design approach is an important ingredient in the overall delivery of high-quality healthcare, both in direct terms medically and as an appearance of the measured quality of care. Thus, a setting is not only a space but it is a possible part of the service that can help making a positive memorable experience and a direct psychological experience. IBD patients need to tailor recovery to their severity of disease, anatomic location of disease, previous responsiveness of medication, side effects of medication, and other diseases or medical conditions that the patient has. As stated by Professor Roger S. Ulrich, “The new broader perspective in medicine requires that the psychological and social needs of patients be strongly emphasized along with traditionally economic and biomedical concerns, including disease risk exposure and functional efficiency, in governing the care activities and design of healthcare buildings” (Roger S. Ulrich, 2000). Comfort, the ease and satisfaction of bodily wants with the freedom from pain and anxiety, affects patients psychologically, physically, and socially as a vital tool to create healing environments for Crohn’s and Colitis patients. The general guidelines to achieve this in the digestive healthcare center includes; providing access to nature and other positive distractions, fostering control and privacy, and promoting social support, as stated by Ulrich (Roger S. Ulrich, 2000). Positive distractions can be achieved in several ways such as; televisions, music, artwork, and views, which come to fruition in the design process.

Nature & Design

Care facilities continue to be built in urban settings and thus lack natural resources that patients can be exposed to. Researchers state that natural elements can affect feelings of stress through a person’s perceived attractiveness of an environment. These “investigations of aesthetic and affective responses to outdoor visual environments have shown a strong tendency for American and European groups to prefer natural scenes more than urban views that lack natural elements” (R. S. Ulrich, 1984). Nature produces comfort though positive feelings, reduction of fear in stressed individuals, holding interest, blocking and reducing stressful thoughts, and also by the possibility for fostering restoration from anxiety or stress. As previously mentioned, patients undergo extreme anxiety and hospitalization which limit their access to the outdoor environments and leave only the views through windows or the incorporated natural elements to achieve that connectivity.

The discussion of the history and importance of nature within man’s life can be traced back to writings of philosopher Henri Frankfort. Frankfort states that, “the fundamental difference between the attitudes of modern and ancient man as regards to the surrounding world is this: for modern, scientific man the phenomenal world is primarily an ‘It’; for ancient man, it is a ‘Thou’” (Frankfort, 1944). The ‘Thou’ being that of what we draw our sole conclusions from or something greater than one’s self and the ‘It’ being related to other objects or detached by universal laws. Our dependence on the surrounding world shifted from being a determinate factor in the way one analyzes and serves their life to becoming a physical science restricted from the values it originally held. For in order to design the care facility with an idea that it serves a higher purpose than science, it is important to analyze how bringing to life the ideas of our ancestors can create a beautifully unscripted moment. Nature can thus play a role in expanding past laws of modern definition into a psychological experience for patients.

Implementing the natural elements into the healing environment is accomplished in several ways. The presence of windows alone proves to significantly influence patients and staff in a positive manner. Former studies analyzed responsiveness in patients placed in recovery rooms that view the outdoors versus a brick wall. Those with a view of nature reported to have shorter postoperative stays in the hospital, fewer pain medication doses, and slightly lower scores for minor post-surgical complications (R. S. Ulrich, 1984). Not only do views facilitate a patient-orientated design, but so does the use of natural light, which shows mainly positive effects on the length of stay for patients as well as in mortality rates, perceived stress and pain. Canadian researchers concluded that, “patient rooms looking out on sunshine,

Figure 1.2

Figure 13

rather than cloudy or drab conditions foster more favorable outcomes" (Beauchemin & Hays, 1998). However, with the use of natural lighting there is also the crutch of direct sunlight and its negative response due to the creation of bright glare patches. This is a concern that can be accounted for with patient's control of blinds, shades, or lighting within their own rooms. Furthermore, the ability for patients, visitors, and staff to connect with the outdoors through healing gardens and paths is a key attribute to design. It is suggested that "gardens will tend to alleviate stress effectively if they contain green or relatively verdant foliage, flowers, non-turbulent water, park-like qualities (grassy areas with scattered trees), and compatible nature sounds (birds, water, breezes)" (Marcus & Barnes, 1999). Even if the site has a disadvantage of space for these elements, there is design approaches that can also foster this connection which include; aquariums in a high-stress waiting area, an atrium with greenery and a fountain, or nature art mounted where bedridden patients can easily see it. By providing the calming elements of nature into the facility, it reduces the opportunity to counteract the philosophies of supportive environments by worsening outcomes and increasing stress, such as mounting abstract or challenging images. Nature not only provides positive distractions, it enables the opportunities for patients of UC and Crohn's community to expand their control over their environment.

Patient Control

An optimal healing environment is one that is designed to stimulate and support the inherent healing capacity of patients. Individuals are able to not only influence others but also allow others to impact them. "When you are in a healing environment, you know it; no analysis required. You somehow feel welcome, balanced, and at one with yourself and the world. You are relaxed and stimulated, reassured, and invited to expand. You feel at home" (Stichler JF, 2001).

Within one's home there is the sense of privacy, control, and safety which are all keys factors in creating a calm sense of place or making it 'homey'. Control in this context refers to an individual's real or perceived ability to influence

their situations and determine what others do to them (Gatchel, Peng, Peters, Fuchs, & Turk, 2007). Research shows time and time again that individuals who feel they have a sliver of control over their circumstances deal more positively with stress and have a better health than persons that lack it. The 'home approach' sensitively reacts to the individual preferences and needs.

Preferences can be programmed in design by small and large scale. Control further becomes undermined by "poorly designed, unsupportive healthcare environments that, for example, are noisy, deny visual privacy, force bedridden patients to stare at glaring ceiling lights, and present way-finding difficulties (Roger S. Ulrich, 2000). By providing the opposition of this, patients retain perceived or actual control over stressful or unpleasant situations which in return relieve stress. Small elements of design that achieve this are bedside dimmers, privacy in imaging areas, television controllers for each bedside and headphones with music choices. On a larger programmatic scale, it is accomplished with the incorporation of way finding devices throughout the center, spatial layouts that flow easily, and accessibility to group rooms such as fitness centers, break out spaces, and cafeterias. A major push involving way finding devices is the incorporation of elements like a fireplace, a central gathering space, use of themes or colors, and intimate breakout spaces for privacy. In order to capture comfort, designers can use principals of hospitality to give it a 'home away from home' feel. Selecting materials that remove the clinical or institutional feel of healthcare is one approach in doing so. These implementations help reduce pain, anxiety, sleep quality, and most importantly improve patient satisfaction. Designers and health care providers can bring back control with the use of technology in individual rooms.

Communication & Technology

"While there is no cure for Ulcerative Colitis, it's amazing how much the support of loved ones can lift you. Whether it is offering assistance, checking in or just talking to me about anything other than Colitis when I need it most – they've always been there as the collective shoulder for me to lean on."
- treilly, diagnosed in 1987

Figure 1.4

The priority of modern technology investment demonstrates it's helping hand in discovery and in health. Social support, the tangible assistance a person can receive from others, proves across a wide variety of situations that persons receiving higher social support generally experience less stress and have better health than those who are more socially isolated (Lett et al., 2005). With modern advances, patients can be equipped with WIFI, Skype video call technology, and large monitors with browsing resources. Video innovation creates connectivity even when it is not always feasible for individuals to have every one of their loved ones in the location. Noise is also a major concern for patients because of its ability to produce a widespread of annoyance, sleeplessness, elevating heart rate, and perceived stress amongst patients. The sounds of machines, nurse call systems, and other room noise are three large causes of this issue but with recent technology hospitals successfully reduced noise by implementing such items as; nurse call systems on cellphones, video monitors on the outside of rooms for staff, video cameras that can be wheeled into baby's rooms, white noise sound management, sound dampening tiles, therapeutic sound machines, and rubber dampening floors (Stichler JF, 2001). As technology allows designers in the healthcare sector to expand their options for diagnostic, clinical, and customer services, it causes the rethinking of the standard practices and aim towards an optimized environment. Winthrop University Hospital Research and Academic Center in New York designed digital check-in kiosks to reduce the frustration of congestion and patient check-in, incorporate bariatric seating into waiting areas seamlessly, and hybrid exam/consult rooms. These rooms interconnect patients with care providers by organizing zones for both and eliminating the need to move patients to an office with the "physical barrier of a formalized desk for the physician" (Weremeychik, 2014). Although eliminating the person to person interaction of a normal check-in facility, Winthrop offers cutting edge ideas to facilitate a day to day understanding of the improvements needed for healthcare design. Telemedicine, a tool in improvement of connectivity, gives the ability not only for patients to connect with others but as well as group conference with each of their physicians in one setting. Crohn's and UC tend to need specialists in multiple areas of expertise, as indicated earlier, this telemedicine technology

gives physicians the opportunity to work remotely and provide the information needed to patients and family members and view them coincidentally. “The rapid advancement and pervasive influence of technology has created the opportunity to re-imagine the delivery of healthcare” and designers are challenged with integrating it to enhance the patient experience in current day while striving to encompass emerging technology within the physical space (Weremeychik, 2014). Not only can it cross boundaries in patient to care provider communication, it has the ability to conference in insurers, public assistance representatives, and past care providers. This facility will aim to provide the technological support for these professionals to get in touch with patients around the world for moments when they can’t be there in person. Technology gives patients their particular needs in a form of communication that goes beyond institutional care.

The challenge of drawing the line between the inhumane nature of technology and its usefulness is present within the treatment of sick and stressed individuals. Martin Heidegger, a 20th century philosopher, explained technology as more than just the modern definition today that in actuality the root of the word itself is bringing forth, making or revealing. He states, “One says: Technology is a means to an end. The other says: Technology is a human activity” (Heidegger, 1977). Technology thus, in his understanding, is dependent upon what our manipulation of it is and in return it becomes a tool for us to challenge forth what was ‘created’. However, through his philosophies, it is important to understand that technology has the power to reduce objects, such as people, to their production value. It is easy to see the instances in which healthcare become depersonalized, such as eroding human interaction in clinical care situations. This nervous itch is not a new one and in the 1700s “many physicians worried that the invention of the stethoscope would depersonalize care by allowing a physician to listen to the patient’s heart at a distance rather than placing an ear on the patient’s chest” (Bailey, 2011). However, incredible advancement in discovery and speed of care occurred with the introduction of the stethoscope. The desire is to provide personalized and humanistic care can be achieved through technology. For instance, it can help regain patient control through; temperature, lighting color, art on wall or digital art, ports for personal devices to plug into in-room sound systems, or a tablet for patients and visitors to control their individual rooms. For as long as the goal isn’t to target an increase in profit or help avoid malpractice, using carefully examined technology can maximize patient care potential.

European philosopher Owen Barfield once wrote that repeatedly interpreting a great ballad or the same type of poetry causes an over-saturation of our aesthetic imagination and thus results in a loss of our appreciation and arousal. There is no way to gain back the sensation felt at the initial moment of greatness unless one returns to the second it impacted them. When pleasure is completely lost, it is time for an overhaul of change (Barfield, 2010). The traditional stuffy approach to health care design placed “emphasis on functional efficiency, together with the pathogenic conception of disease and health” which has often “produced facilities with environments now considered starkly institutional, stressful, and detrimental to care quality” (Roger S. Ulrich, 2000). Thus, it is time for an overhaul of the Crohn’s and UC community and their healthcare treatment. By allowing nature into design, aiding in regaining personal control, and connecting populations and professionals through technology, patients are finally able to receive the care they deserve. Treating diseases as the humans they take over is the first step in healing and design because for IBD patients the fight is in knowing that, “I have Crohn’s disease but it doesn’t have me” (“CCFA Community: Story,” n.d

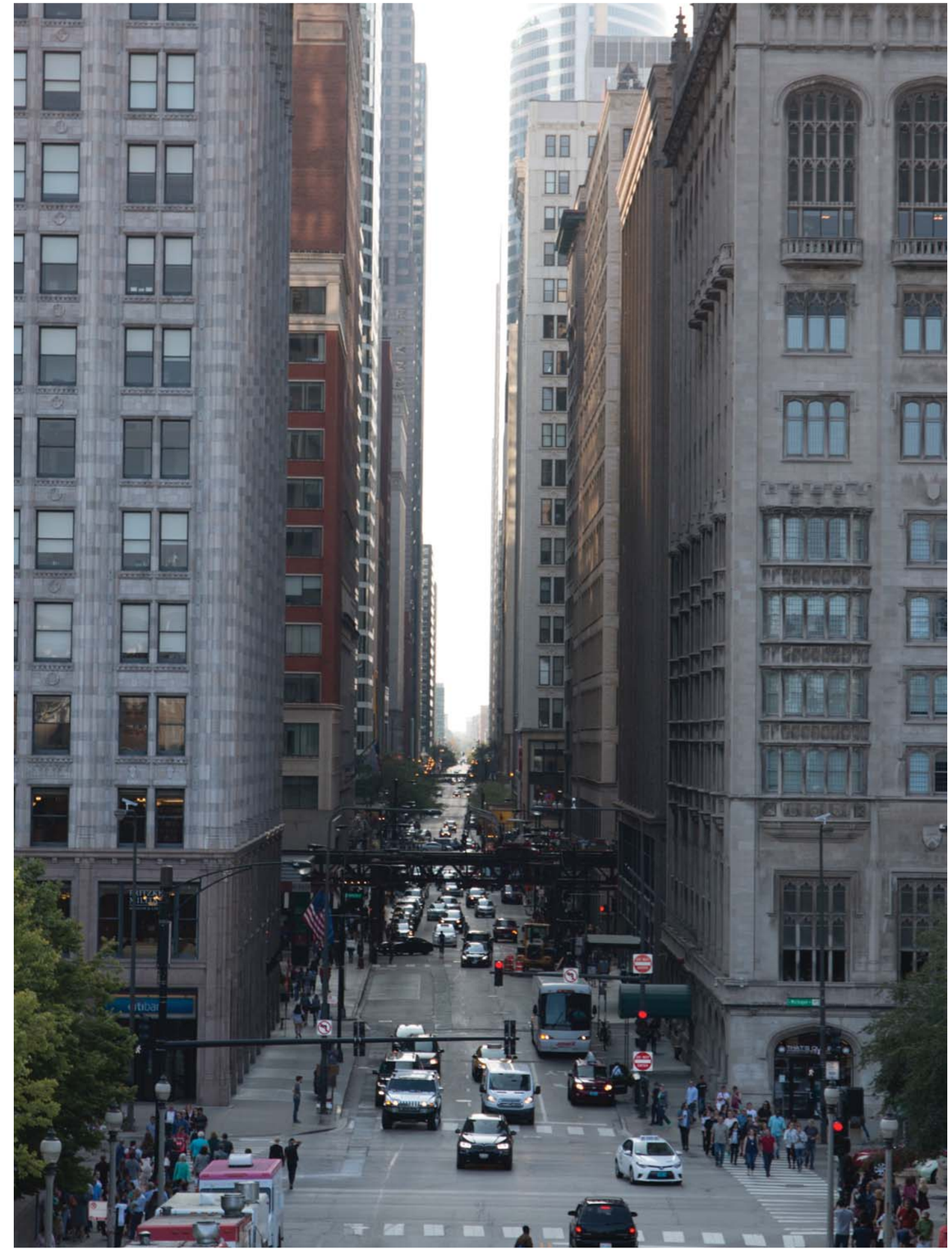


Figure 1.5

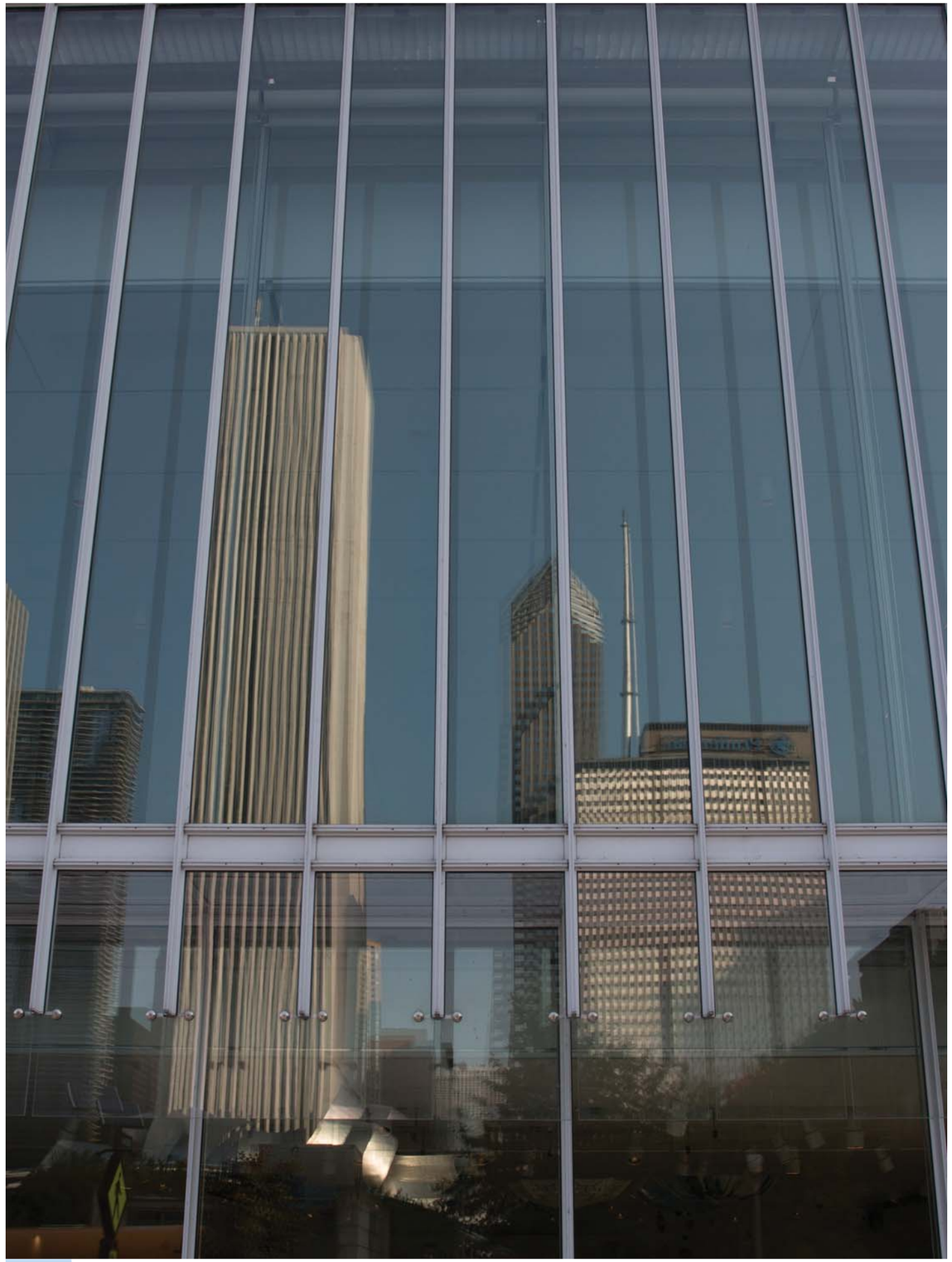


Figure 1.6

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Bailey, J. E. (2011). Does Health Information Technology Dehumanize Health Care? Virtual Mentor, 13(3), 181. https://doi.org/10.1001/virtualmentor.2011.13.3.msoc1-1103
Mentor, 13(3), 181. https://doi.org/10.1001/virtualmentor.2011.13.3.msoc1-1103

Dr. James E. Bailey and the American Medical Association (AMA) Journal of Ethics featured this journal in their Medicine and Society section. It discusses how HIT, health information technology, is at war between those who visualize it as a dehumanizing practice and those who see it as innovation and the future. By highlighting the issues of developers, lawmakers, researchers, and quality organizations, Bailey states that we are then able to find its 'meaningful use'. The journal articulates the great concerns of technology including; eroding human interactions, auscultation skills, neglect, and eating up care provider time. However, it is also key to understand that technology is simply new tools and devices for the practice.

Barfield, O. (2010). Poetic Diction: A Study in Meaning. Barfield Press UK. Poetic Diction was published in 1928 and written by British Philosopher, Owen Barfield. The text explains what we call 'poetry', 'metaphor', 'poetic diction', and language itself. He also asks why poetry causes an arousal of our aesthetic imagination and produces pleasure to the reader. Owen also uses the text to analyze the meanings of words and thought within a broader philosophical consideration of the world. Within his writings, Barfield begins to challenge our essences of meaning through the explanations of verse, prose, poetic effect, myths, and metaphors. He not only relates to the understanding of poetry but also to the scope of any field and its contributions to our imagination and thought process within what we find impactful.

Beauchemin, K. M., & Hays, P. (1998). Dying in the dark: sunshine, gender and outcomes in myocardial infarction. Journal of the Royal Society of Medicine, 91(7), 352–354.

Beauchemin and Hays report on an experiment that took place in an CICU, Cardiac Intensive Care Unit which had alerted them to the possibility that sunny rooms would allow better outcomes for cardiac patients. The study compared those treated in sunny rooms versus those in dull rooms (2.3 days in sunny rooms, 3.3 days in dull rooms) for the 628 subjects. The patients were directly admitted to the CICU with first attack of MI, myocardial infarction. Outcomes showed patients stayed a shorter time in the sunny rooms, but the significant difference was with women. Beauchemin and Hays concluded that illumination has the capacity to be relevant to outcomes in MI and this natural experiment can merit replication. This study derived from the alerted studies done in the psychiatric unit and by the reports that cardiac patients performed less than those in a normal mood.

Carpman, J. R., & Grant, M. A. (2016). Design That Cares: Planning Health Facilities for Patients and Visitors. John Wiley & Sons.

This book includes information on how aspects of health facility design - site, planning, architecture, interiors, product design, graphic design, and others - can reach the needs and preferences of the customers. Customers include patients, family, visitors and staff. Carpman and Grant document typical health facility design and discuss how each step can demonstrate care both for and about patients and visitors. It makes a road-map for improvement of customer experience through design. This book focuses on guiding and achieving customer-focused, evidence-based, healthcare design at a level of high excellence.

CCFA Community: Story. (n.d.). Retrieved October 8, 2016, from http://www.ccfacommunity.org/Story.aspx?storyid=1505

The Crohn's & Colitis Foundation of America provides individuals with a community of support for personal testimonies and knowledge regarding the diseases. This source is large quantities of stories of patients, their families, and their loved ones and their quest for both health and answers. Individuals are able to write when they were diagnosed, where they live, and their experiences on a large platform without revealing their identity. People with this disease often feel alone and disconnected from other people but with this platform it gives the opportunity for them to open up honestly.

CCFA: Facts about Inflammatory Bowel Diseases. (n.d.). Retrieved September 8, 2016, from http://www.ccfa.org/resources/facts-about-inflammatory.html?referrer=https://www.google.com/

The CCFA, Crohn's & Colitis Foundation of America, aims to research and bring to life the known information on Inflammatory Bowel Disease. It is the largest non-profit health organization that dedicated its purpose to finding a cure for IBD. It plays a large role in most breakthroughs since 1967 when it was founded.

The information packet brings to life the facts about Inflammatory Bowel Disease through the foundations generation of research. The information presented is for educational purposes and offers support to the IBD community with the cutting-edge studies at major medical institutions, investigators, and financing of underdeveloped areas of research. The packet aims to answer how many are affected by the disease, the current treatment methods, what they currently know, and where individuals can gain support.

Frankfort, H. (1944). The Intellectual Adventure of Ancient Man. Retrieved from http://www.press.uchicago.edu/ucp/books/book/distributed/I/bo3644170.html

Dutch Egyptologist, archaeologist, orientalist, and philosopher Henri Frankfort published this novel in 1946. It is intended to capture the origin of thought and theory through tales of ancient Egypt, Mesopotamia, and Israel. Frankfort reveals the ancient man's perspective on the world, gods, and man himself. In this, he aims to deal with the concern of nature of the universe, the function of the state, and the values of life. People of the ancient time saw nature as living things. This book traces this history of thought through pre-scientific, 'humanized' world to the detachment of intellectual reasoning. It is considered the study of 'before philosophy'.

Gatchel, R. J., Peng, Y. B., Peters, M. L., Fuchs, P. N., & Turk, D. C. (2007). The biopsychosocial approach to chronic pain: scientific advances and future directions. Psychological Bulletin, 133(4), 581–624. https://doi.org/10.1037/0033-2909.133.4.581

United States today faces a major prevalence and cost of treating chronic pain as a major physical and mental health care problem. Gatchel, Peng, Peters, Fuchs, and Turks provide an overview of noteworthy developments within the field of chronic pain. This came out of a recent upsurge in the research for chronic pain and the significant changes in the better understanding of its etiology, assessment and treatment. The article runs through the basic neuroscience stages of pain and the psychosocial factors that are presented. It spans the research on how social factors and psychological factors can interfere with the brain processes and thus impact health, illness, and wellness and development in new technology.

Heidegger, M. (1977). Question Concerning Technology, and Other Essays, The. Harper Torchbooks.

Martin Heidegger, a German Philosopher, seminal thinker in Continental tradition and philosophical hermeneutics, wrote this 1954 German published novel to articulate the essence of technology and humanity's role in revealing it. The essays within the text are challenging and often baffling by calling upon readers to enter into a serious pursuit of thinking. Martin neither is against nor for technology, science, and their destructive nature on human life. The roots of the textual philosophy are slated in the Western Philosophical traditions. Heidegger examines the relationship between humans, technology and what he calls it "free relationship", as defined as opening human existence to the essence of technology. It reacts to the two definitions of technology and by finding out truth as the world reveals itself.

Lett, H. S., Blumenthal, J. A., Babyak, M. A., Strauman, T. J., Robins, C., & Sherwood, A. (2005). Social support and coronary heart disease: epidemiological evidence and implications for treatment. Psychosomatic Medicine, 67(6), 869–878. https://doi.org/10.1097/01.psy.0000188393.73571.0a

Lett, Blumenthal, Babyak, Strauman, Robins, and Sherwood utilized this writing to capture the theories of social support and evidence for the role of social support in the research progression on CHD, coronary heart disease. The article concluded that low levels of support increase the risk for CHD events. It is, however, not clear what typologies of support are most associated with healthy outcomes in patients. The research examined the association of social support and risk of coronary heart disease and stroke incidence and mortality within a cohort of 152 Japanese men and women aged 40 to 69 years, free of previous diagnosis of cancer or cardiovascular disease. The studies conducted in Western countries found a large

Figure 1.7

association between social support and cardiovascular outcomes. It is, however, less known whether the influence of social support have the same outcomes on Asian populations. This study examines the untapped sector amongst Japanese.

Marcus, C. C., & Barnes, M. (1999). Healing Gardens: Therapeutic Benefits and Design Recommendations. John Wiley & Sons.

Marcus and Barnes utilizes this book to showcase up-to-date coverage of research findings, relevant design principles and approaches, and best practice examples of recovery through healing gardens. In a combination of therapeutic benefits and practical design guidance, the book becomes a guide for landscape architects and those involved in maintaining cutting edge medical facilities and responsible patient care. The book utilizes site plans and photographs to present guidelines and case studies for the outdoor spaces in settings such as: acute care general hospitals, psychiatric hospitals, children's hospitals, nursing homes, Alzheimer's facilities, and hospices.

Stichler JF. (2001). Creating healing environments in critical care units. Critical Care Nursing Quarterly, 24(3), 1–20 3p.

Healing environments is not considered as a new topic and nor is the idea of creating an environment that could facilitate healing. However, recently the 2000-year-old concept has been applied to design of hospitals and specifically intensive care units. The chapter addresses the needs of enhancing patients healing process and not solely focusing on the needs of the professional staff that are caring for them. Demonstrations of utilizing nature, natural light, soothing colors, therapeutic sounds, and the interaction of family members can positively influence this process. These are also important considerations in the design of critical care environments.

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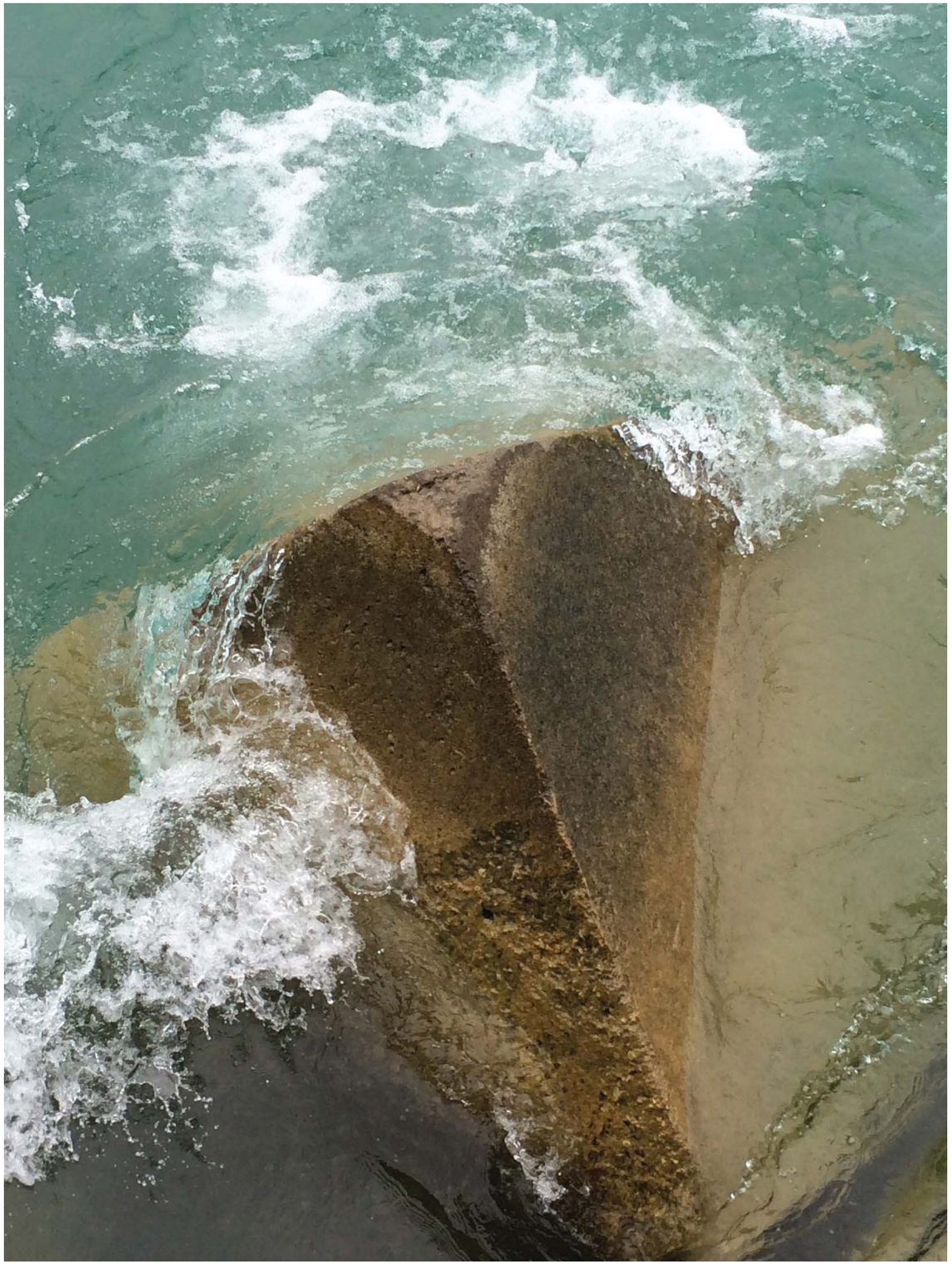

Figure 1.8

Ulcerative Colitis Statistics. (n.d.). Retrieved September 7, 2016, from https://crohnsdisease.com/ulcerative-colitis/ulcerative-colitis-statistics/

The website organizes and presents data on the diagnosed Crohn's and Colitis patients in the United States. It showcases gender, race, geography, and costs of IBD. The website is an information network established for the Inflammatory Disease community. Their goal is to empower patients and caregivers to take control of Crohn's disease by providing a platform to learn, educate, and connect with peers and healthcare professionals.

Ulrich, R. S. (1984). View through a window may influence recovery from surgery. Science, 224(4647), 420–421. https://doi.org/10.1126/science.6143402

Based on records of patients after cholecystectomy, individuals in Pennsylvania hospital between 1972 and 1981 were examined to see if a room with a window view to nature would have a restorative influence. Of these twenty-three surgical patients with a window view, individuals were seen to have fewer negative evaluative comments in nurses' notes and took fewer analgesics than those in a similar room with a view facing a brick wall.

Ulrich, R. S. (2000). Effects of Healthcare Environmental Design on Medical Outcomes. ResearchGate. https://doi.org/2000

Dr. Roger S. Ulrich, director of the Centre for Health Systems and Design, Texas A&M College of Architecture, discusses the history and shifting paradigms of health care design and its study. Evidence, growing rapidly, links positive patient outcomes with patient-sensitive healthcare environment design and composition. In this article he discusses how staff/patients react to various materials, composition, and structures such as flooring, windows, light, sound, views, furniture arrangements, multiple versus single-occupancy rooms, and other pieces of optimum healing environments.

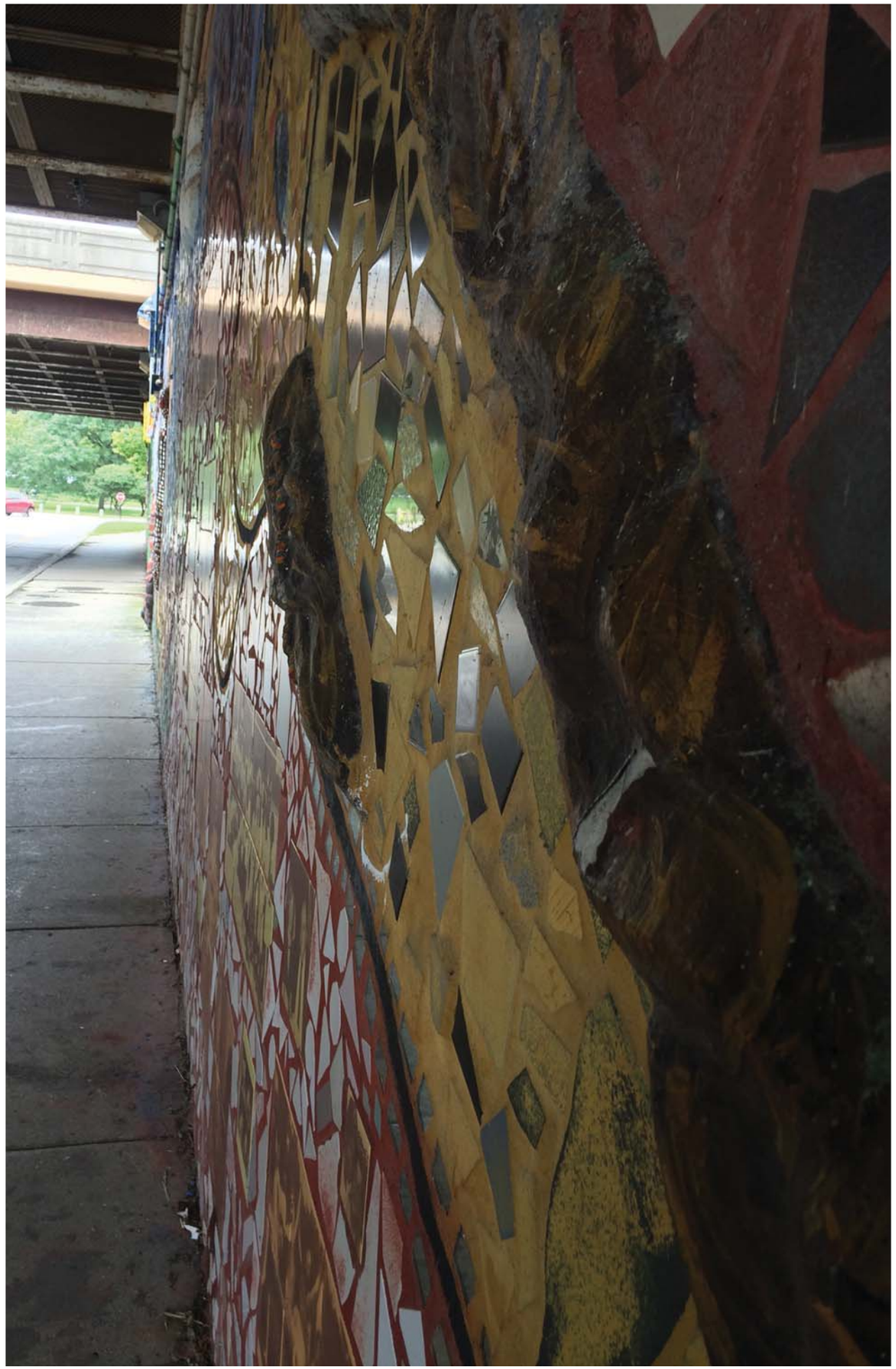

Figure 1.9

Weremeychik, E. (2014, December 17). Best Of 2014: How To Design A "Smart" Hospital. Retrieved October 3, 2016, from http://www.healthcaredesignmagazine.com/article/how-design-smart-hospital

Healthcare Design Magazine promotes to a wide audience of readers including; architects, interior designers, hospital administrators, facility managers, engineers, and key members of the construction community. Utilizing the magazine, website, events, and social media, they engage the community with professional journalist content and industry experts to help navigate the current healthcare landscape and emerging design/architecture/construction in order to improve patient outcomes.

This specific article highlights Winthrop University Hospital and others as leading technologically driven care environments. It showcases the work each of the hospitals has done to take technological advance into their mainstream care structures.

History & Context

A historical analysis of medicine, philosophy, the built environment and Irritable Bowel Disease.

Figure 2.0

"Instead of learning to look for illness in the eyes of the patient or to listen for it in the patient's voice, we try to read it off the data provided by technologically sophisticated measuring instruments."

- Hans-Georg Gadamer

HEALING:

The Crisis of Reaching Equilibrium in an Unhealthy Environment

Figure 2.1

Introduction

Modern science's thought process is not only bold but seemingly lifeless. Merleau-Ponty describes the sciences of today as a "fundamental bias to treat everything as though it were an object-in-general – as though it meant nothing to us and yet was predestined for our own use."(Merleau-Ponty, 1964) It is reduced to a formula-like-operation of: test, operate, and transform. Classical science differed by using the world as its foundation for operation. The diversion from classical to modern science, and its environment, has created one of the problems that faces us today, for, our environment has been in constant search of the right balance between the capacities of our technology, the need for nature, and feeling humane. Health is a subject that concerns everyone and to care for it becomes a universal need.

Atmosphere has historically been a central element of "good health." Although, modern science continually impacts the nature of healthcare architecture making it feel as though it is a mere product of a laboratory. It is important to understand the crisis in two manners: the origin and meaning of health and the physical environment of healing.

Health and Healing

Health is a fundamental piece of each man. It is innate. Our responsibility as humans is to ensure our personal decisions, in regards to our well-being, are not taken over by the technology of science. Gadamer defines health as "the manifestation of human existence" and "a condition of harmony or an appropriate state of internal measure."(Gadamer, 1996) It cannot simply be produced.

> "The life of the body always seems to me to be something which is experienced as a constant movement between the loss of equilibrium and the search for a new point of stability. What a remarkable thing it is that a slight pitch in balance counts as nothing, that we can tilt almost until falling and then swing back into equilibrium."(Gadamer, 1996)

Health roots itself within the body. Plato describes disease, in Timeaus, as a condition of disproportionate compositions of the soul to the body. They are not in the control of the ill but simply inherited or learned through one's upbringing. Only then by compensating for the lack of a part of the soul or body can one become good or beautiful.(Plato, 1888) Since the discovery of modern science, Plato's ideas of organs solely being sensation hubs became discredited, however, they did create a foundation for the future of medical discovery and thought. Similarly, the Greeks saw body as impossible to treat "without at the same time treating the soul."(Gadamer, 1996) However, after Galileo, science could substitute an idea for an experience. This caused the celestial and the physical worlds to become equal in nature, removing the precedent the Greeks established, and thus created modern science. Within

Figure 2.2

this time, Descartes challenged philosophy and science by separating the mind versus the body and the mind versus perception. Famously stating that "I think, therefore I am."(Descartes, 2012) However, Husserl found Descartes' philosophy lacking fundamentals because one can't just "think." He saw this as a separation between the separation of the truth and reality and sought to reach back to the world, as we once knew it.

The spiritual nature of science was brought back by Husserl in his philosophy by stating that the body is a product of the spirit. He saw the body as being felt and an experience that "takes us to the limits of the possible."(Husserl, 1965) This relates to the German expression for health; 'Es felt mir etwas' – which in English means 'I am lacking something.' Heidegger similarly represented the body by stating, "in this 'it is there,' in our given over to the world, in our state of openedness and openness, in our spiritual receptivity for everything, whatever it may be, we are also there ourselves."(Heidegger, 1982) These phenomenological theories brought upon Gadamer's studies on the art of healing in the scientific era resulting in the concept of the equilibrium of health.

> "For sickness, and loss of equilibrium, do not merely represent a medical-biological state of affairs, but also a life-historical and social process. The sick person no longer simply identical with the person he or she was before. For the sick individual 'falls out' of things, has already fallen out of their normal place in life. But the individual who now lacks and misses something previously enjoyed still remains orientated towards returning to that former life."(Gadamer, 1996)

Modern science threatens medical action by placing its emphasis on replacing the natural with the artificial and not the restoration of an equilibrium. Medical action can result in two ways: a disturbing factor itself or a specific healing effect. Science provides the opportunity for us to develop technology which takes on the relationship of human practice. This makes the distance between human and machine extremely visible, thus eliminating sensitivity towards the patient. Treatment, or "treating people and handling them with care,"(Gadamer, 1996) pulls apart the routine by listening and being sensitive to the place within us. It becomes crucial, especially, for treating the chronically ill.

Figure 2.3

We are unaware of health but we can anxiously carry with us illness. Health is defined as a condition of harmony while illness is defined as an experience of disturbance of our well-being. Both are hardly something that can be measured or seen as a set of standard values, a practice to which modern science contributes. Chronic illness represents a special case of importance in the crisis of modern medicine. It is a limitation of the technical medical skills and it "is precisely in the treatment of the chronically ill and ultimately in the care of the dying that we are reminded that the patient is a person and not a case."(Gadamer, 1996) It shows us the fate of our development. These patients must accept illness for what is it because theirs cannot be taken away. The chronically ill must accept the highest task of humankind: the path towards death. Treating diseases as though they are eliminable is also apparent in the de-humanized environments created for them.

Healing Environment and Equilibrium

Today, one may ask: how do patients reach equilibrium in an unhealthy environment? Artists lend their bodies to the world by depicting works through what is seen and what is within their hearts. They show the things how they become things and the world how it becomes world. As architects, we also have the abilities to create emotive moments through the physical environment. Architects, as artists, can use their designs of the physical environment as sense-inducing experience. Our architectural paintings can illicit reactions or feelings by evoking the spirit of the painter who takes his body with him and into his work. Mankind has always sought out answers and explanations, and unfortunately, they have leaned on the use of modern science to attain a higher understanding instead of the foundation artists have laid before them.

Figure 2.4

By operating the world under a foundation of modern science, it has reflected itself into healthcare design. Modern science operates under manipulating the environments in which we dwell versus creating the moments in space that facilitate us to be touched. Perez-Gomez compares the feelings of great architecture to “the emotional release fed by the flow off tears can be seen as coming from rain, clarity of mind from transparent air and blue sky, and inward confusion from experience of being enveloped in fog.”(Pérez-Gómez, 2016) Architecture aids in human capacities because there are no experiences without an environment.

“I enter a building, see a room, and – in the fraction of second – have this feeling about it. We perceive atmosphere through emotional sensibility – a form of perception that works incredibly quick.”(Pérez-Gómez, 2016)

Cities that feel can date back to the city planning in accordance to the heavenly directions. Vitruvius perceived a city laid out in accordance to the heavens and wind direction as a healthy environment. Because it created a balanced environment, he saw also it as a balance within the humors of the body. However, the scientific era slowly favored the engineer who established; reason, utility, and efficiency within the physical environment over the architect. This robbed “place of crucial qualitative elements.”(Pérez-Gómez, 2016) For example, strong smell was an identifier of good health during the nineteenth century causing many cities to become odorless. These calculated moves of the engineer made the homogeneous and identical qualities of corporate, residential, and civil architecture of today that disgruntles many.

Plato, through his writings universe of the Demiurge, led to the natural sciences and an example of how form and health have been intertwined since the beginning. He introduces the natural place of differentiated bodies in the chora.(Plato, 1888) The chora, or human space, reveals the limits and purpose of human life in the same way the space of drama does in Poetics(Aristotle, 2016) by Aristotle or the Greek theater does to the spectator. The space created in the Greek theater was one of the first embodiments of human space and healthy environments.

“This distance in the Greek theater and the play performed by the chorus and the actors made possible the reflective understanding of the plot and the catharsis that takes hold of the spectators, enabling them to understand the purpose of the tragic destiny and thus to recover their spiritual wholeness and find their bearings amid the disorientating events of everyday life.”(Pérez-Gómez, 2008)

The ideals of the Greeks transmitted into the circular temple of the Epidaurus which is a well-known place of healing. The labyrinthine center of the temple that features three sacred serpents is an analogy for medicine enabling order “to appear or, if lacking of, to be restored.”(Pérez-Gómez, 2008) Ultimately, the theater shared the importance of a healthy site for its spectators which can be transmitted to today’s patients.

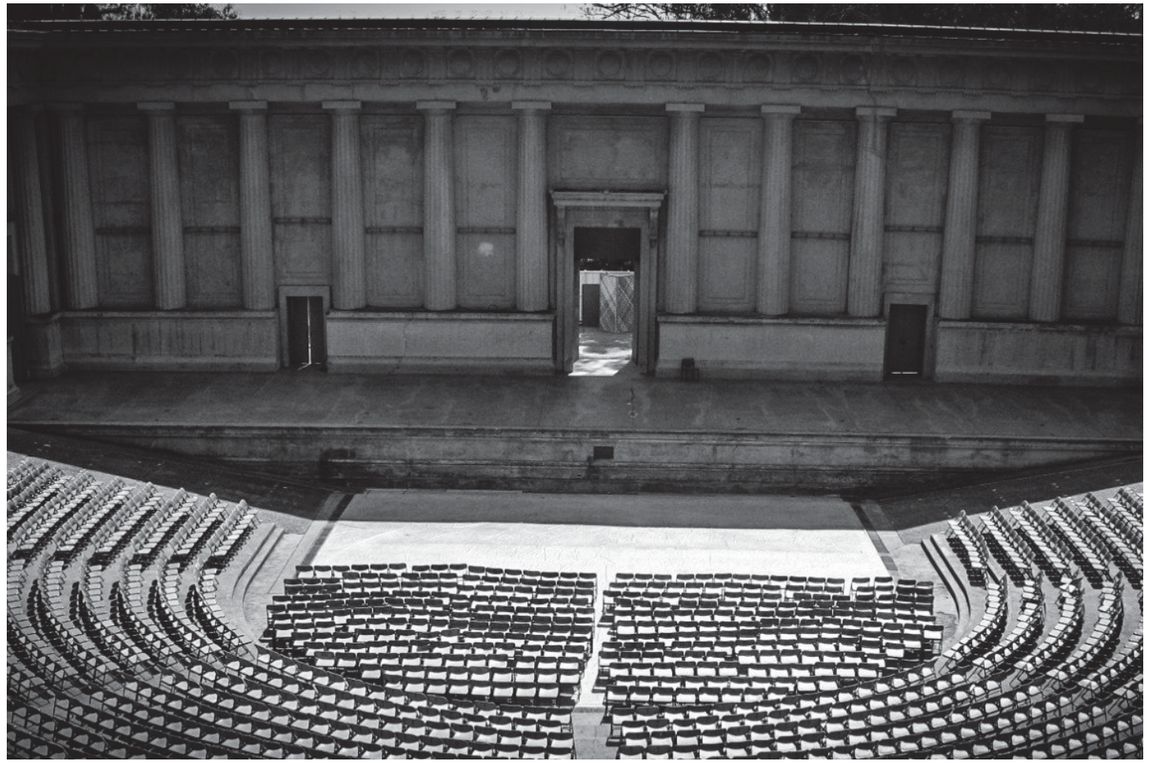

Figure 2.5

Healthcare architecture today lacks what the Greek theater achieved so successfully. By embodying modern technology and science, the physical environment gave way to the history of sterilization and sophisticated measuring instruments which neglect the spiritual wholeness of those being treated. As Perez-Gomez states, architecture should be “at once the material building and space, its ground and its lighting, the truth unveiled by art, and the gap between word and experience. It is a space for both contemplation and participation: a space for recognition.”(Pérez-Gómez, 2016)

Owen Barfield wrote that repeatedly interpreting a great ballad or the same type of poetry causes an over-saturation of our aesthetic imagination and thus results in a loss of our appreciation and arousal. There is no way to gain back the sensation felt at the initial moment of greatness unless one returns to the second it impacted them. When pleasure is completely lost, it is time for an overhaul of change.(Barfield, 1973) The traditional oppressive approach to health care design placed emphasis on functional efficiency and the pathogenic conception of disease and health which has often produced facilities with starkly, institutional, and stressful environments. It is time for an overhaul in the physical healthcare environment by allowing the feeling of comfort to aid in patients reaching equilibrium with a conducive environment; especially for the chronically ill.

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Figure 2.6

Figure 2.7

THE INVISIBLE MEMORY:

Analyzing Artist Do-Ho Suh's Idea of Home

Artist Do-Ho Suh explores the meaning of home in his 1:1 scale installation of Home Within Home Within Home Within Home Within Home. Featured at Seoul's National Museum of Modern and Contemporary Art, the piece takes on the theme of personal space. The two homes, Do-Ho Suh's first apartment building in Rhode Island and his childhood home, are assembled with the use of translucent organza-like polyester in rich jewel tones. Visitors have the capability of walking within the homes for a unique perspective on the artist's personal space. Although the fabric is nothing but cheap and readily available, it still commands our attention to focus on the "invisible memory" of our daily experiences at home.

The moods of our homes illicit the inner peace of the world, hiding us from the threatening and repulsive qualities of our surroundings. The installation is placed within the frame of the viewer and the longer view transforming it into five homes comprised of: his two homes, the museum, the palace and then Seoul. The buildings intermingle orchestrating in a way that the "histories of disparate times and spaces chime in a subtle symphony." This gives form to a dramatic interpretation of spatial change through the ideas of 'spatial migration' and displacement of space'.

Suh compares the experience and essence of home almost as though it is the fabric of a custom-tailored dress and a thing that is skin-like or portable. This idea comes from his experiences of relocation to America perpetuated a new concept of home filled with displacement and temporal boundaries. By transporting his past experiences into the new environment of the museum, it allows space to become layered with new meaning as it crosses through new spatial boundaries. The exhibit allows the inside and outside views to pass through the translucent fabric encouraging the visitors to discover the 'weightless memories' of their own 'spaces'. This entanglement of inner and outer, public and private, East and West, and the past and present envelop the visitors to create a fully-exposed surreal space.

Figure 2.8

These ideals about home contradicted many of the beliefs of Le Corbusier who saw it as being no more than a "machine for living in". Eileen Gray, 20th century designer and architect, disagreed with the notions Le Corbusier famously designed under. She saw the home as "the shell of man, his extension, his release, his spiritual emanation." Her words live through Suh's exhibition by creating the home as an extension of himself, no matter if he has shed this piece of his life, it still exists intimately within him.

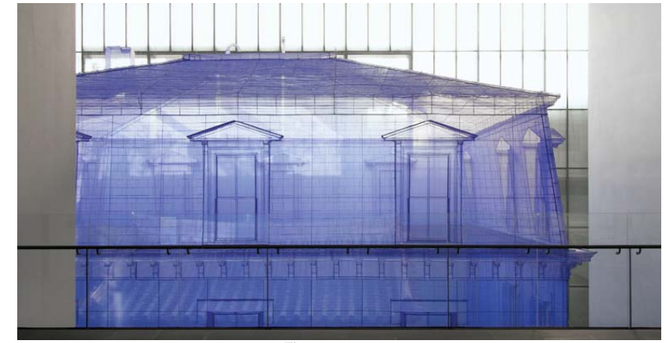


Figure 2.9

Designing space in the visceral imposes meaning and mood beyond its materials and use in a similar manner that Eileen Gray describes the nature of home and Suh evoked in his capturing of art as an extension of himself. Moving forward, the treatment center will focus on the elegant path poets have taken before modern man by intertwining man and world. No longer will the built environment focus on intellect and technology as its core design process but instead on the building of man's home as "the inner shell of man". Suh saw and depicted home beyond the bricks and the mortar in a way that pulled the inside and outside and public and private into a dream-like world in a disorientating state of mind. The use of architecture for the chronically ill can allow patients to remain part of the world amidst the 'falling out of things' to set the stage for further exploration and self-discovery.

THE CATHARSIS OF THE GREEK THEATER;

An Analysis of The Trojan Women

The Trojan Women, since its conception in 415 BC, is considered an innovative portrayal of the Trojan War and the barbaric actions of the countrymen towards the women and children Athenians. During this time, ancient people began to question their everyday circumstances and the traditions of the Gods. The creator Euripides, the third of the great ancient Greek tragedians, reveals within the tragedy how the ancient people needed to recognize the naivete of their beliefs. This illusion of popular belief was exposed in the mind of the writer. This two can be said for the way in which modern society has turned a blind eye to the way in which our environment has been disabling our fluid path towards an equilibrium of health.

The Trojan Women was a direct depiction of what was happening at the time, a concept both art and architecture should try to strive towards. In the play, the city of Troy is left in ruins following the end of the war. The opening scene shows Poseidon grieving over the loss of the city he built. Meanwhile, Hecuba, former queen of Troy, lays imprisoned lying on the ground mourning the loss of both her husband and home. She wallows out the words, “There is no sorrow in all of the world that is not my sorrow” as a woman who has lost everything. This statement remains as relevant today as it was centuries ago by depicting the real-life suffering of popular and political beliefs. A feeling that similarly could be said for the ill who lay on their ground in hopes of a better understanding and care for the sickness within them that they too mourn.

The play has a musical rhythm with an intertwining of dark and light themes which end in a tragic diminuendo. Drama and tragedy builds

Figure 2.10

Figure 2.11

until the final chorus where the women say theit last farewell to their city and their former lives. Lisa Landrum describes the complexity of the drama writing that, “The descriptive speeches of messengers brought forth the (frequency horrendous) events taking place out of sight: either at a remote location from which the messenger had just returned (another chora, a nearly harbor, etc.) or within an interior space behind the wall of the skene (which might represent the threshold to a temple, palace, house, cave, or grove).” Through the acting of the chorus, the audience is transported to an idyllic “elsewhere” just before they encounter a moment of doom transforming them into witnesses or judges. The real humanity is incorporated in the philia, or caring of love, for what they hold dear.

Heroism exists in that of the victim whose souls are encased in suffering. The audience experiences this suffering alongside of them while simultaneously feeling a renewal or catharsis. Euripides represents the multiple moods of women and individuals going through extreme loss such as: the recklessness of young women, the vamp secure in their sexuality, the mother concerned for her child, and the grandmother giving advice to her young. By alternating the most despairing scenes with the lighter ones, Euripides uses emotion versus action to impact his scenes. We learn to be merciful to the prisoners of war and of life.

Greek drama demonstrates a great deal of complexity by making tangible a great variety of real and imagined places through the performers suggestive words and interactions and not with the scenery. A duplicity occurs in the representations of choras (with the space where Poseidon looks down upon the women and the fallen city of Troy) and the “multiplicity of comparable situations drawn in by the power of self-reflexive allusion”. This comparative layering of partially present, partially obscured dream-like situations always coming into being, appearing, and vanishing in the always present theatre forever being in the receptive memory of the audience. The detailing of the play allows the closing number to move the audience by re-opening them to an awareness of their own local situation by treating regional conflicts indirectly in a mimetic lens of mythical struggles.

Figure 2.12

In the drama, the chora was not timeless and indestructible but instead incredibly vulnerable similarly to how a chronically ill patient feels about their body. A treatment center can offer up to the patients what the skene did for the audience by instilling a sense of hope in a dream-like, disabling moment.

Figure 2.13

Figure 2.14

IBD HEALTH

IBD PATIENTS IN THE WORLD =

5,000,000

IBD PATIENTS IN AMERICA =

1,600,000

IBD PATIENTS IN IL & IN =

60,000

HOSPITALS IN CHICAGO =

36

IBD PROGRAMS AT CHICAGO HOSPITALS =

4

IBD TREATMENT CENTERS IN THE WORLD =

0

Figure 2.15

IBD DEFINED

Inflammatory Bowel Disease

IBD is a chronic condition that causes inflammation in parts of the intestines. The walls of the intestines experience swelling, inflammation, and ulcers, which cause discomfort and digestive problems that are serious to the patients.

Crohn's Disease

Crohn's disease is a form of IBD that occurs anywhere along the digestive tract. It affects deep layers of the digestive lining and can show up as lesions even in healthy areas.

Ulcerative Colitis

Ulcerative Colitis only involves the colon and rectum. The innermost lining of these areas is affected by inflammation and ulcers. The more of the colon that is infected results in worse symptoms.

Symptoms

Symptoms of both include abdominal pain, cramping, frequent bowels, bloody stools, and weight loss. The cause is still unsure by doctors.

Figure 2.16

THESIS PROPOSAL

Project Typology

The following building will be an IBD Treatment Center in Chicago, Illinois.

User/Client

The user of this building is IBD Patients, out-patients of all typologies, visitors of the building's public areas and patients, family members, and all staff and medical providers. The client will be the patient, who becomes the primary focus.

Major Project Elements

The following elements are core aspects of the facility:

1. In-Patient Rooms
2. Research Labs
3. Emergency Department
4. Out-Patient (Operating Rooms, Procedure Rooms, Diagnostics, Lab)
5. Public Space (Cafeteria, Coffee Shops, Eating Areas, Pharmacy)
6. Waiting Areas, Family Rooms, Lobbies
7. Archives
8. Staff Support
9. Nurses Stations
10. Mechanical

The following aspects that will be addressed throughout the entire facility are:

1. Natural Lighting
2. Views (Both Interior & Exterior)
3. Orientation of the Body & Spaces
4. Human Scale & Size
5. The Built Environment Addressing the Site

Project Emphasis

The following items are the main emphasis of the project:

1. The Patient Within the Built Environment
2. Call Attention to Disease Rather Than Hide From it
3. Create Additional Paths for Patients During Their Individual Journeys
4. Create Places of Reflection, Rest, & Understanding
5. Allow the Artefact & Thesis to Work Together

Goals of the Thesis Project

The overall goals of this project is to provide a new understanding of health care in a very drastic lens through the patient's eyes and away from sterilization and the white walls of today. This group of individuals are in need of a place they can call home when they are forced to be away from their own home. By looking through a historical and theoretical lens, the Edgewater IBD Treatment Center will be able to find a larger context within the history of medicine and the human body to find a series of precedents that relate on a larger scale to build forward a momentum of change in hospital design.

The final design will hopefully address major issues that have been discovered through the research process, interviews with patients and providers, and fellow designers. These issues include an absence of light and views from many clinical spaces, the closed-off atmosphere of patient rooms, the central role of the human body, and an understanding of blending private and public.

Project Justification

The 5,000,000 individuals who are diagnosed with IBD and the ones yet to be determined have no place to call their own or to go to when they need answers. This facility provides a place for them to heal and to go the rest of their lives as they try to control their disease. It too provides a platform for a new understanding of what hospitals can be and how they can be more attuned to the needs of patients both in healing and in their emotions. It challenges the institution of hospitals and places the decisions of movement and healing within the hands of a patient and not just the owner and staff.

Performance Criteria

The following are criteria in which the architecture will try to perform and embody:

1. Disorientating and Re-orientating the Body
2. To Heal While Calling Attention to the Healing
3. To Call Attention to the Movement of the Human Body
4. To Address the Differences of In-Patient and Out-Patient Healing
5. To Create a Unifying Architectural Experience That Blends the Dualities of Healing

MEDICINE HISTORY

Figure 2.17

2000 BC

Egyptians
The Egyptian Imhotep describe the diagnoses and treatment of approximately 200 diseases.

Figure 2.19

1000

Birth of Galilean Science
The Scientific Era begins with the birth of Galileo, the identification of smallpox, and the study of the nervous system.

Figure 2.21

1800

Medicine Becomes Micro
The invention of the microscope led to the discovery of blood cells, bacteria, blood transfusions, blood vessels, arteries and the human heart.

The Formulation of Medicine
During 500BC-O, Medicine took great strides with the introduction of the first anatomy book, Herophilus studies of the nervous system, and the distinction of veins and arteries.

0

Figure 2.18

460 BC
Hippocrates
The Greek father of medicine begins studying medicine and prescribing a form of aspirin

60 AD
Pedanius Dioscorides
Wrote the De Materia Medica

1489
Leonardo Da Vinci
Dissected corpes for the first time

The Continuation of the Scientific Era
Since Galileo, The Book of Healing and The Canon of Medicine and the invention of the spectacles led to Da Vinci inventing the microscope.

1400

Figure 2.20

1590
Zacharius Jannessen
Invents the microscope

1816
Rene Laennec
Invents the stethoscope

1796
Edward Jenner
Develops the process for vaccination for small pox

1895
Wilhelm Conrad Roentgen
Discovers the x-ray

The Pursuit of Chronic Disease
The discovery of the syringe, vaccine, and women in the medical field led to the first attempt at a vaccine or cancer.

2000

Figure 2.22

1842
Sir Humphry Davy
Discovers the anesthetic properties of nitrous oxide

Figure 22

IBD HISTORY

1700

The initial explanation of the ailment occurred in 1700. However, symptoms date back to 460 BCE from the Egyptians and Hypocrites. Chinese have been trying to treat symptoms such as inflammation since the beginning of their medical history.

1800

The term Ulcerative Colitis was added to the general medical vocabulary and the first clinical descriptions were recorded during the 1800s. It became a time of discovery for the disease.

1900

During the 1900s, a further development of Ulcerative Colitis occurred with clinical sitings of the disease in the small intestine. This discovery led to the term Crohn's Disease.

2000

In the 2000s, Ulcerative Colitis and Crohn's Disease hit social media and spreading awareness around the world with images of colostomy bags reaching over 9 million views. These images brought the disease into the everyday public.

1769

Figure 2.23

Giovanni Battista Morgagni
Clinically diagnosed a young man with a chronic, debilitating disease

1859

Figure 2.24

Sir Samuel Wilks
First physician to use the term 'Ulcerative Colitis'

1865

Figure 2.30

Union Army Medical Corps
First clinical and pathological description of UC recorded in the annals

1888

Figure 2.25

Sir William Hale White
Published a description of cases of Ulcerative Colitis, entering the term into general medical vocabulary

1909

Figure 2.31

Dr. Braun
Described many inflammatory diseases involving the small intestine

1913

Figure 2.28

Sir Thomas
First to describe Crohn's in "Chronic Interstitial Enteritis'

1913

Figure 2.29

T. Kennedy Dalzeil
Described 9 patient cases that suffered from intestinal obstruction at the British Medical Association

1923

Figure 2.26

Mt. Sinai Hospital
Hospital identified 12 patients with abdominal cramps, fever, & weight loss, in mostly young patients

1932

Figure 2.27

Dr. Burrill Bernard Crohn
Formally discovered Crohn's Disease with two colleagues

2014

Figure 2.32

Bethany Townsend
Model posted image of two colostomy bags on the Crohn's and Colitis Facebook Page

Precedent Analysis

Case studies that are influential to the understanding the foundation of what healthcare architecture is typically today and how this thesis intends to design away from the standards boundaries while keeping in mine successful qualities within the works.

THE CHRIST HOSPITAL JOINT & SPINE CENTER

ARCHITECT: SOM
LOCATION: CINCINNATI, OH
AREA: 381,000 SFT
YEAR: 2015

The Christ Hospital ranks amongst the best facilities in the nation. The Joint & Spine Center was a contemporary addition to the 1889 hospital. Patient rooms on the upper floors offer views to the downtown and beyond of Cincinnati. The lower floors are home to the orthopedic, spine, and sports medicine facilities that also connect with the hospital's existing structure. The building is covered with wood finishes and other warm materials to create both a tranquil and therapeutic environment for the people inside. The facility is 8 stories and 165 ft. high. It was nominated for multiple awards including; AIA Healthcare Design Award 2016, Spark: Health - Finalist 2015, and WAN Healthcare Awards: Shortlist 2014.

Figure 3.0

SITE PLAN

THE CHRIST HOSPITAL JOINT & SPINE CENTER

ARCHITECT: SOM
LOCATION: CINCINNATI, OH
AREA: 381,000 SFT
YEAR: 2015

Figure 3.1

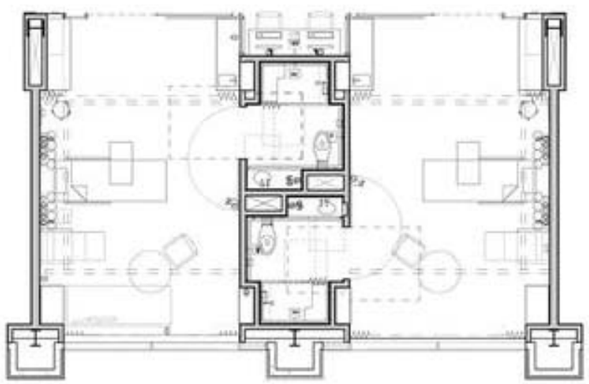


Figure 3.2

PATIENT ROOM PLAN

With the use of floor-to-ceiling windows, organization, & furnishings, SOM creates a soothing environment for its patients and their families. By decentralizing nursing stations and placing them next to patient rooms, it keeps caregivers closer to the patients and reduces noise levels. The building is also filled with large abundances of natural light and flexibility in the semi-public spaces to offer maximum comfort to caregivers and families. Additionally, there is a large green roof that offers a place to relax and view the downtown of Cincinnati. These ideas are useful because Ohio is also a temperament climate at times and ideas similar to this can be implemented into a building in Chicago that offers an urban view and setting.

Figure 3.3

Figure 3.4

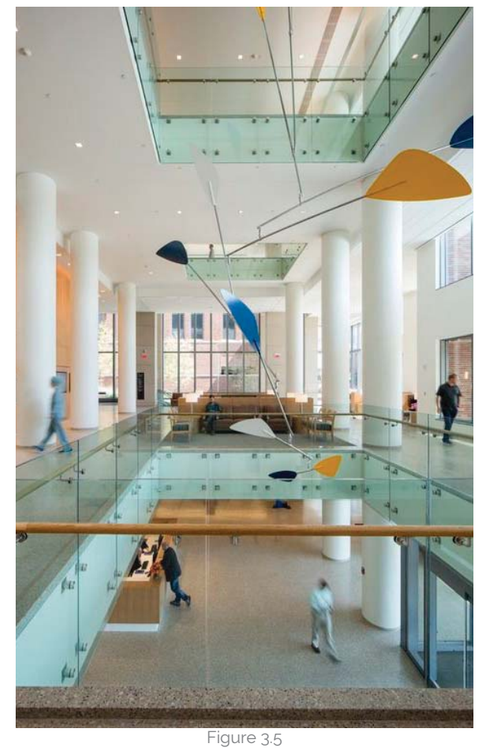


Figure 3.5

Figure 3.6

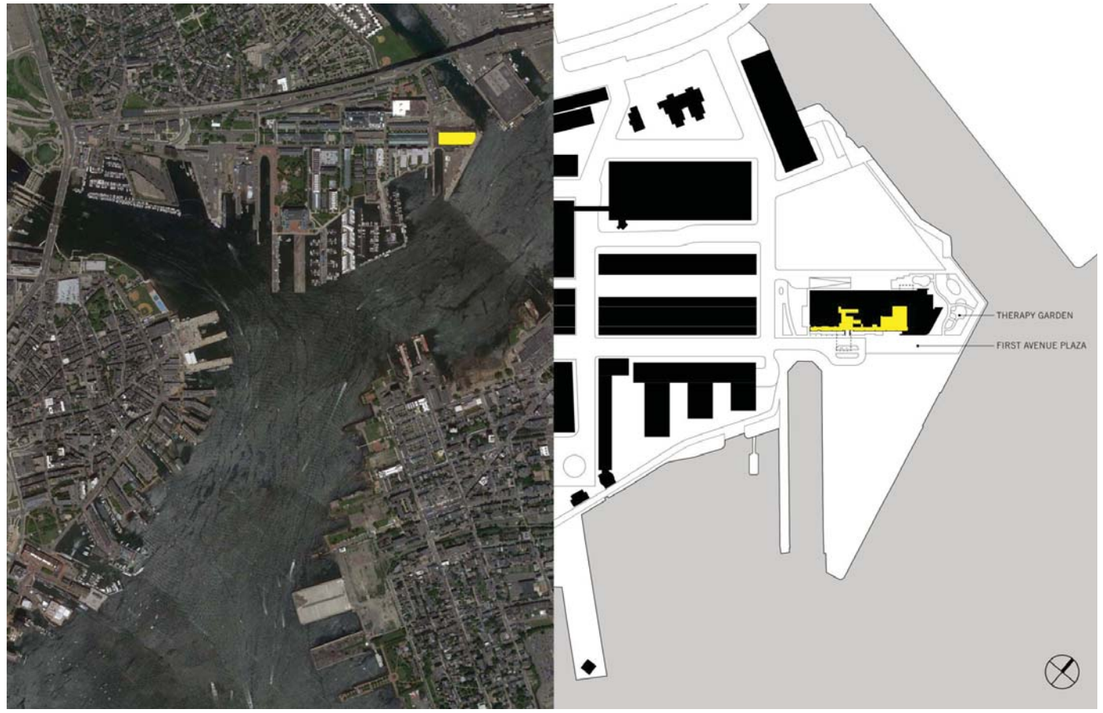
CASE IMAGES

The design offers a patient-centric view of orthopedic care with a program of approximately 90 inpatient rooms and 12 surgical suites. These spaces maximize exterior views to support overall well-being, privacy, and reduction in sound to provide areas of rehabilitation, conversation, and rest.

SPAULDING REHABILITATION HOSPITAL

ARCHITECT: PERKINS + WILL
LOCATION: BOSTON, MA
AREA: 378,000 SFT
YEAR: 2013

The new hospital and gathering place of the Spaulding Rehabilitation Hospital was a project built on a brown-field parcel Charlestown Navy Yard. 75% of the first story is solely dedicated to the community as a public space and connects to the Boston Harborwalk. There is a therapeutic running trail along the waterfront and a variety of different landscaped surfaces. Material-wise, the building reflects the nature of the military battleships & aircraft carriers nostalgic to the area by using a gray material pallet. Natural light is filtered through with the use of glass curtain wall. The building includes outpatient services, a pool, two large gyms, living suites, and transitional patient apartments. Vegetated roofs, reduction of cooling loads, storm runoff collection, therapeutic terraces, and gardens are a few of the sustainable design elements that are integrated.



SITE PLAN

Figure 3.7

Figure 3.8

Figure 3.9

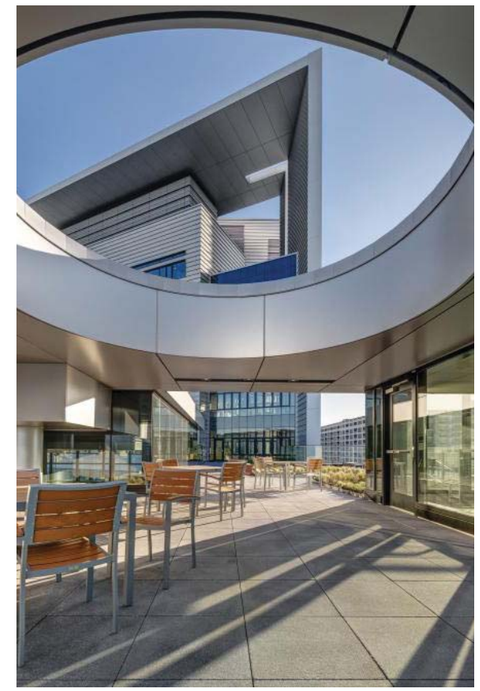


Figure 3.10

Figure 3.11

Figure 3.12

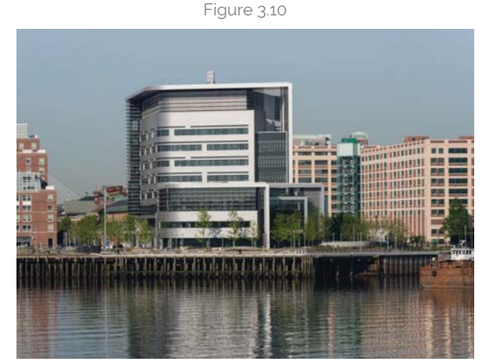


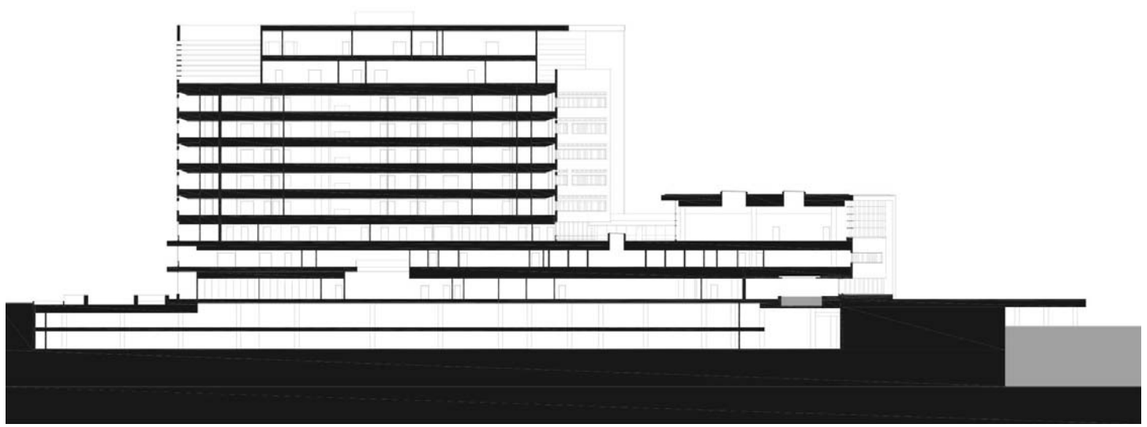
Figure 3.13

"GREEN DESIGN"

This rehabilitation center becomes a beacon for its community and allows people to feel hope and aspiration for healing. It not only practices "green design" but also is a state-of-the-art research center. The building serves more than 2,500 inpatients and approximately 30,000 outpatients per year.

SPAULDING REHABILITATION HOSPITAL

ARCHITECT: PERKINS + WILL
LOCATION: BOSTON, MA
AREA: 378,000 SFT
YEAR: 2013



SECTION

Figure 3.14

FIRST FLOOR

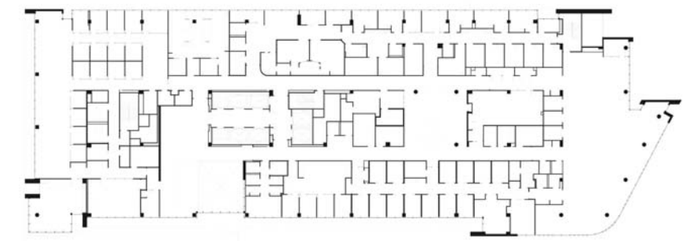


Figure 3.15

THIRD FLOOR

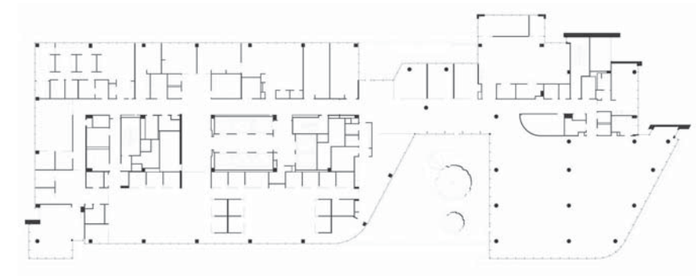


Figure 3.16

FIFTH FLOOR

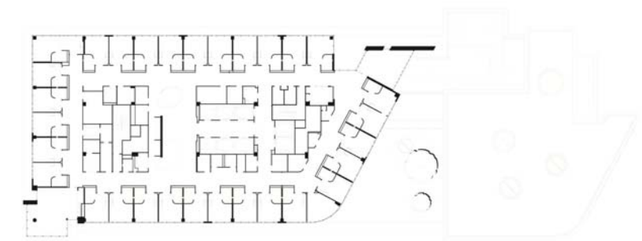


Figure 3.17

The 132-bed rehabilitation hospital is featured on the waterfront of Boston. It uses the uniqueness of the site to provide both an indoor and outdoor experience by taking advantage of daylight, views, and waterside spaces. There is an outdoor trail, third floor terrace, meeting rooms, a cafeteria, therapy gym, pool and a three-story base that all complete a unique and setting conscious building. The project is also LEED Gold certified. The incorporation of a large public space on the ground floor is something that could be equally useful for the site in Chicago. By integrating the waterfront idea, the new treatment center could become a place of physical, and spiritual rehabilitation for IBD patients.

LANCASTER GENERAL HEALTH CANCER INSTITUTE

ARCHITECT: BALLINGER
LOCATION: LANCASTER, PA
AREA: 100,000 SFT
YEAR: 2014

This go-to-destination cancer center provides access to multi-specialty networks of professionals that can all come together in one space to provide for the best possible outcome. The design focuses on integrating natural systems into the healing process. The existing parking court was transformed into a healing garden with an interior programming that focused on the natural progression of diagnosis to treatment. The treatment levels are divided into bays that each feature their own small porch. The project creates a metaphor for the challenge ahead in their healing process by skirting them through nature and across a bridge. Curvilinear forms suggest at the continuum of the patient and family's experience during the confrontation of the disease.

Figure 3.18
SITE PLAN

Figure 3.19

Figure 3.20

Figure 3.21

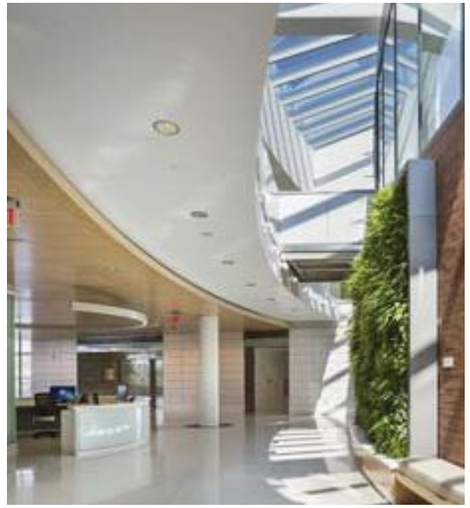


Figure 3.22

Figure 3.23

PROJECT SCOPE

133 workstations:
- 97 open plan, 36 private

70 treatment areas:
- 30 exam rooms, 31 infusion bays

82 activity spaces:
- 5 team rooms
- 76 collaborative seats,
- 1 cafe
- 1 meditation pavilion
- many open lounge areas overlooking central garden

LANCASTER GENERAL HEALTH CANCER INSTITUTE

ARCHITECT: BALLINGER
LOCATION: LANCASTER, PA
AREA: 100,000 SFT
YEAR: 2014

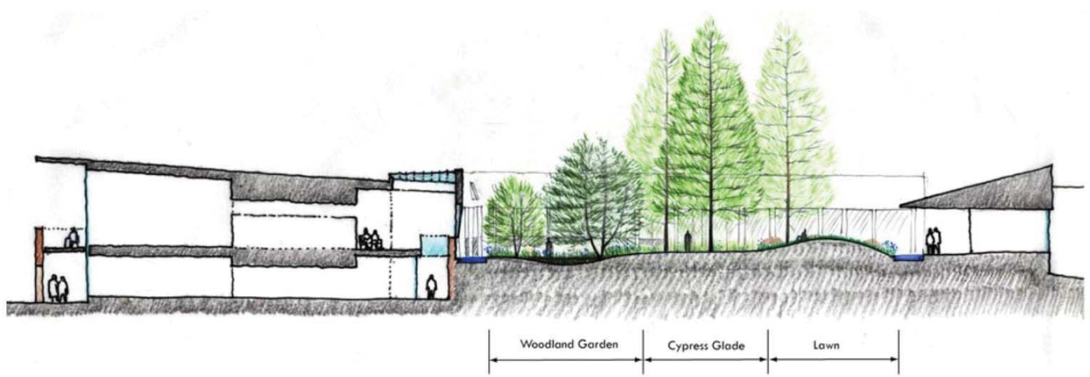


Figure 3.24
SECTION

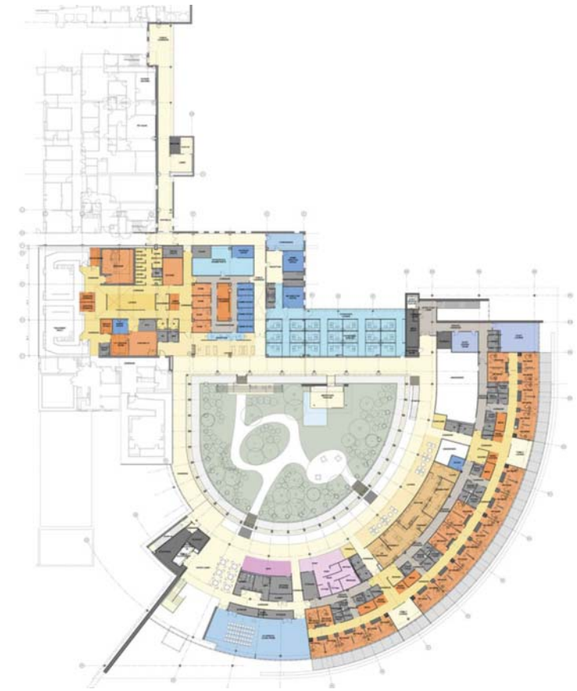


Figure 3.25
FIRST FLOOR

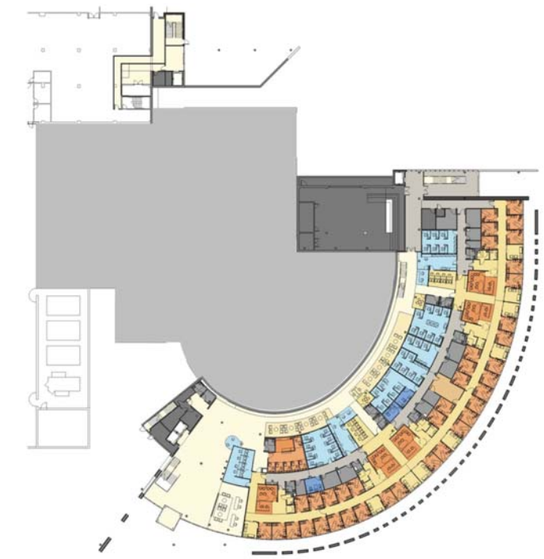


Figure 3.26
SECOND FLOOR

A large skylight in the center of the building provides a continuous access to natural light and a connection to the healing gardens. The healing garden is a vital piece of the design because it is the center of the building and offers solace for the patients, staff and visitors. The exterior is cladded in glass, steel, and brick to represent the diseases transparency, simplicity & strength, while the interior is covered with wood, terrazzo, Terra Cotta, and colored-glass panels. These types of design initiatives will help transform an urban environment into a place of holistic disease treatment in the design to come for Crohn's and Colitis treatment as well.

Precedent Analysis

Case studies that are influential to the understanding of needs the thesis project may have that others have done successfully in the form of other typologies and within both the architecture and art fields.

Figure 3.27

LADY OF LOURDES

ARCHITECT: UKNOWN
LOCATION: LOURDES, FRANCE
AREA: 51 HECTARES
YEAR: UNKOWN

The Sanctuary of Our Lady of Lourdes represents a destination for sick pilgrims to be healed by the miraculous water of the Catholic shrine or Grotto. The environment instills a sense of healing within its atmosphere amongst the hundreds of thousands of pilgrims who visit the grotto to bathe in the sacred waters.

The structure is known as the Domain, an area of the ground surrounding the Catholic Shrine or Grotto. Each year, 350,000 pilgrims bathe in the water at the baths. The grotto at Massabielle is very simple and stark in contrast to the various basillicas and the Rosary Square. The recess of the grotto is undecorated with an added addition of an altar and lectern for masses to be held within the facinity.

Figure 3.28

EPIDAURUS THEATER

ARCHITECT: POLYKLEITOS THE YOUNGER
LOCATION: EPIDAURUS, GREECE
YEAR: 340 BC

Figure 3.29

The Great Theatre of Epidaurus was constructed in a canyon within the Greek city Epidaurus. It had a capacity of 13,000 spectators that was divided between two parts: a 21-row seat portion for citizens and a 34-row seat portion for priests and rulers. It is currently regarded as the most preserved ancient theatre due to its perfect acoustics and fine structure.

The theatre was constructed near the ancient sanctuary of Asklepios, a celebrated healing center of the classical world. Epidaurus was used for its therapeutic and religious center dedicated to Asklepios, the God of healing.

Its construction is known for being a unique use of architecture and harmonious proportions. The structure includes an expansive orchestra and circular areas between the seats and stage. The theater itself remained hidden under a bed of trees until 1881 when a large series of excavations occurred. It sits within the landscape hollowed out of the side of the hill. The circular orchestra links the stage and buildings. Its cavea creates a harmony within its topographical location. The space created in the Greek theater was one of the first embodiments of human space and healthy environments.

"This distance in the Greek theater and the play performed by the chorus and the actors made possible the reflective understanding of the plot and the catharsis that takes hold of the spectators, enabling them to understand the purpose of the tragic destiny and thus to recover their spiritual wholeness and find their bearings amid the disorientating events of everyday life." Ultimately, the theater shared the importance of a healthy site within the folds of everyday life for its spectators which can be transmitted to today's patients.

Figure 3.30

TEMPLE OF ASCLEPIUS

ARCHITECT: THRASYMEDES AND THYMELE
LOCATION: EPIDAURUS, ROME
AREA: UNKNOWN
YEAR: 300-375 BC

The temple was dedicated to the Greek god of medicine in ancient Greece. The sanctuary was built near the Mt. Titthion due to its ties to Asklepieion's birth site. Its site is a destination of pilgrims from all over Greece seeking alleviation of their ailments by either divine intervention or medicines administered by the resident priests. The large temple included a life-size statue of Asceplius. Its structure is compromised of a round marble building which had a mysterious underground labyrinth, perhaps once containing snakes. These symbolized regeneration, as snakes, were thought to live both below and above ground and were also connected to prophecy as they knew the hidden secrets below ground.

The ideals of the Greeks transmitted into the circular temple of Asclepius which is a well-known place of healing. The labyrinthine center of the temple that features three sacred serpents is an analogy for medicine enabling order "to appear or, if lacking of, to be restored."

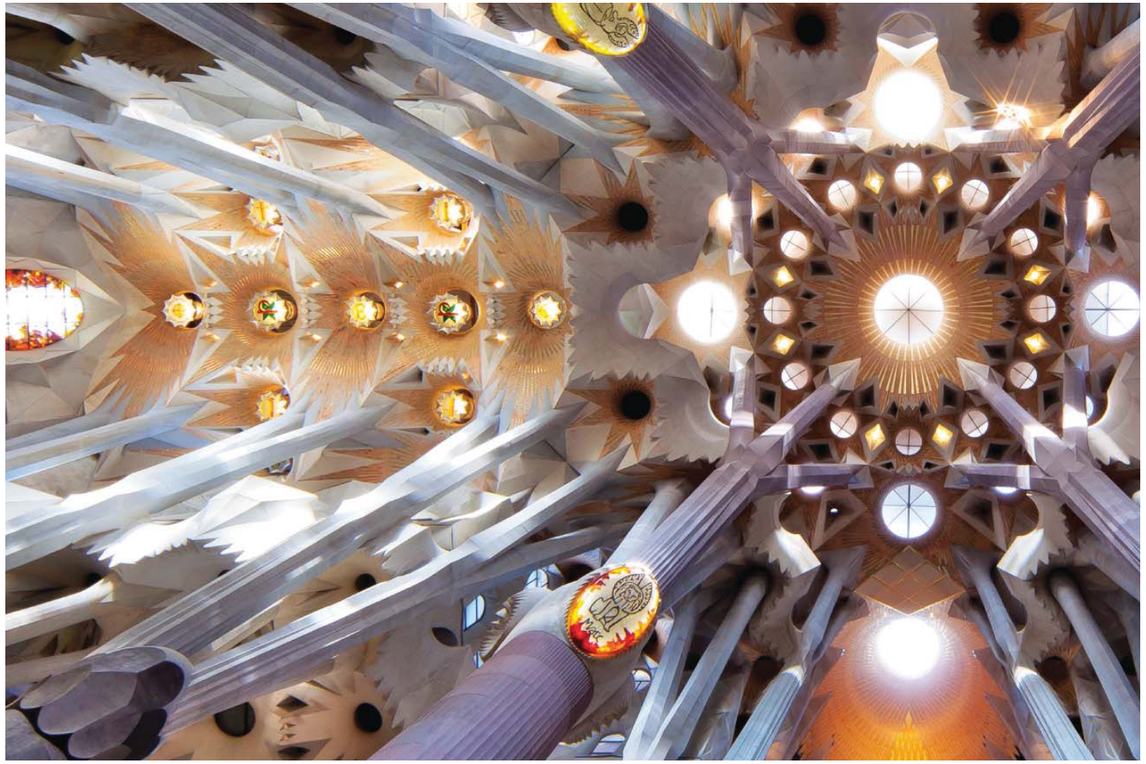


Figure 3.31

SAGRADA FAMILIA

ARCHITECT: ANTONI GAUDI
LOCATION: LANCASTER, PA
AREA: 4500 SQM
YEAR: 1882-1926

The architecture of Sagrada Familia is a magnificent and original depiction of design that causes a jaw-dropping experience. It immediately mesmerized individuals by its height, natural beauty, and distinctive appearance. Gaudi departed from the Gothic cathedrals in several significant ways. His most notable move was the development of a system of angled columns and hyperboloidal vaults to eliminate the need for flying buttresses. The complex use of shapes allows for a thinner, finer structure and enhances the temple's acoustics and quality of life.

He embedded religious symbolism in each aspect of the La Sagrada Familia creating a visual representation of Christian beliefs. Gaudi designed three iconic facades for the basilica, the Glory, Nativity, and Passion facades. The sculptor of the Nativity facade has angular sculptures that extend the modernist character of the temple depicting images of the Eucharist. Gaudi used architecture to express Christian belief through the beauty of the built environment and form. He utilized nature to inspire him with the light and color of the Sagrada Familia. It showed how successful architecture can impose feeling and meaning beyond its materials and use.

Figure 3.32

THE THERME VALS

ARCHITECT: PETER ZUMTHOR
LOCATION: GRAUBÜNDEN, SWITZERLAND
AREA: 3100 SFT
YEAR: 1996

Architect Peter Zumthor's baths turn physical space into a full-body sensory experience. The interior, meandering space creates a peaceful rhythm that represent the experiences one may have in the wilderness discovering on their own. It aims to not compete with the human form but to give it space it needs and allows it just to be.

The Therme Vals is a hotel and spa that combines into a complete sensory experience. The design inspiration was to create a cave or quarry like structure that worked alongside the natural surroundings. The bath room lays below a grass roof that is nestled halfway into the hillside. The material is layers of quarried Valser Quartzite found locally becoming one of the driving influences for the design used with great diginity anf respect.

Peter's design intent is to allow visitors to rediscover the ancient beliefs of bathing. With the combinations of light and shade, open and enclosed spaces and linear elements make a highly sensuous and restorative experience. The layouts of space are very informal to create a modelled path of circulation which leads bathers to certain predetermined points but still gives them space to explore areas for themselves. The perspective thus always controlled through its ensurance and denial of a view.

This fascination of the mystic qualities within the world of stone within the mountain, for darkness and light, for light reflections on the water are all guiding the intent of the architect. His idea to implement these notions led them to the special form.

The natural thermal spring is one of the most notable aspects of the therapeutic baths. Visitors access the site through a tunnel allowing visitors to enter into the ground of a facility that intends to become an extension of the mountains themselves and the landscape in which they create. Peter tries to bridge the gap between man and world through his design and structure.

Figure 3.33

Figure 3.34

THE KEY IN HAND

ARCHITECT: BALLINGER
LOCATION: VENICE, ITALY
YEAR: 2015

"The Key in the Hand" installation is meant to transcend through social, cultural, historical, and political contexts with an emphasis on the theme of life and death. A display of hundreds of meters of red yarn and keys, suspended from the ceiling, are draped over two large wooden boats that are placed in the center of the room. Each key symbolizes the number of victims and widespread destruction of the Great Tohoku Earthquake.

The visitors at the Japan Pavilion at the Venice Art Biennale are immersed in an expansive exhibit by Chiharu Shiota with more than 50,000 keys hanging from a cloud of tightly interwoven string. These webs turn the interior structure into a complex and elaborate labyrinth of materials. The undulating path for viewers causes people to traverse between the strings and the two rustic boats at the center of the space that part the veil of keys. The netting of interlaced metal and materials passes overhead and permeates the entirety of the space.

It seeks to explore the notion of memory to collect people across the globe to realization. Shiota explains that keys are a valuable thing for people that protect spaces and individuals they hold dear. Not only do they imply old memories but they also allow people to open doors that transcend us into new worlds.

Although filling a room, the installation still has a feeling of delicacy and a poetic composition. These memories of visitors and the artist continue to overlap daily allowing for the message to transcend past the use of an everyday object such as a key, string, or a boat. The two boats she places in the center of the room represent two hands catching catching the rain of memories navigating their way through a pool of memories.

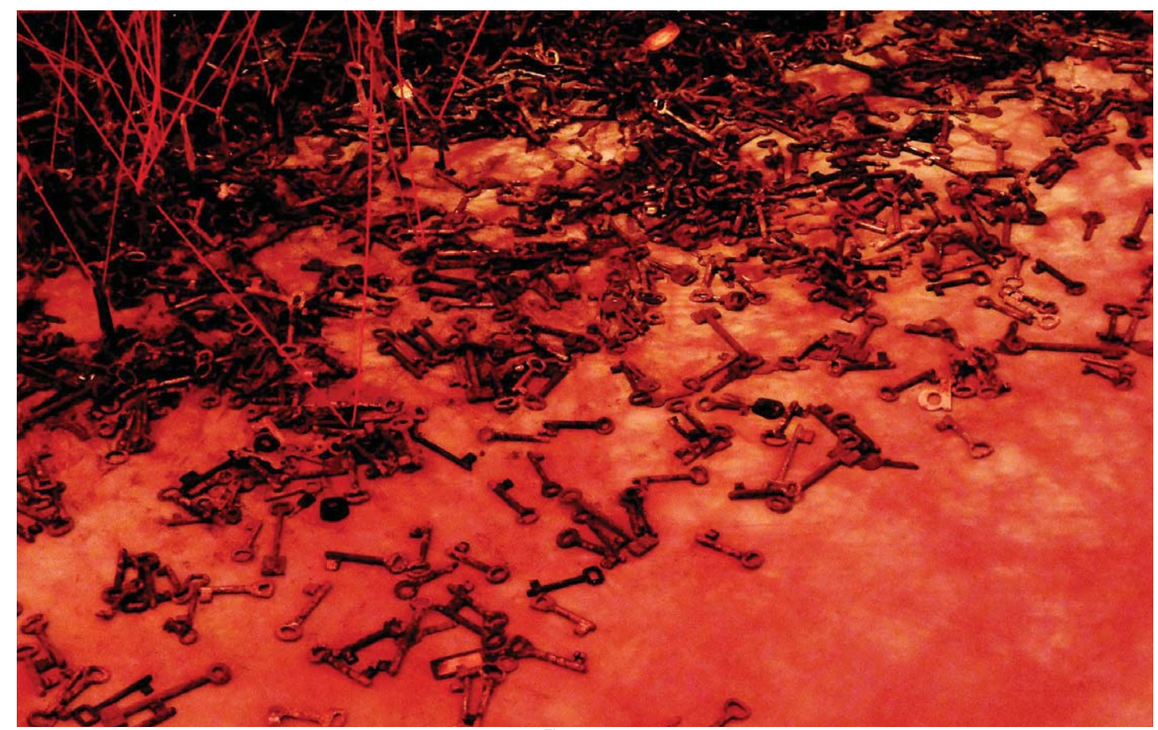


Figure 3.35

VISCERA(L);
THE ARTEFACT

Figure 4.0

Figure 4.1

Those diagnosed with the invisible disease of Irritable Bowel Disease are emotionally impaired in the external world by what happens on the inside of the body becoming one of the same. The artefact exhibits the nature of art through an embodiment of our total senses versus the sterile and dehumanized nature of common hospitals.

Figure 4.2

The confrontation of the body transcends the human to the common day action of going to sleep or waking up in the morning. It evokes a feeling of both death and awakening. This duality is traced back to our own birth, a place in which we constantly wish to return to due to its stimulus-free and warm nature.

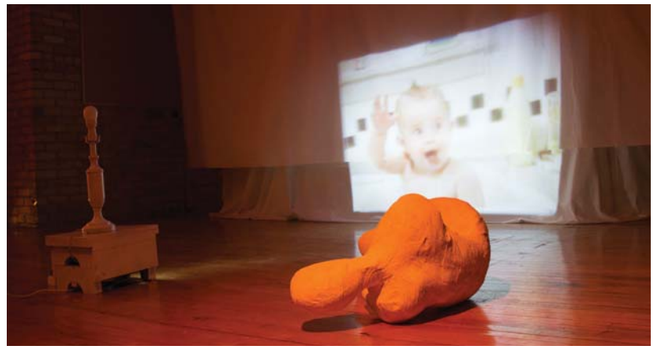


Figure 4.3

Chronic disease is incurable and cannot fade away with time like invisible ink. It creates a lasting impression, one that starts at the of confrontation of disease and is carried with the patients through time. treat its occupants. Treatment is about handling the individual body with care and intertwining man and world.

Figure 4.4

Greeks termed the inward parts of the body (or intestines) as the splanchna, an item commonly sacrificed from animals to the Gods in moments needed for clarity and distinguishing. Poets utilized this term to describe the external activities of everyday life such as sleeping.

The video depicts both the need and hindrance of modern day technology. Although it helps us administer medical care, it also takes us away from the senses of the body that great thinkers established. Disorientating noises and cyclical story telling showcase the disease path from conception to acceptance embodying the ills' medical flair ups.

Figure 4.5

Bachelard describes the essence of home stating that, "the chief benefit of the house is that it shelters daydreaming, the house protects the dreamer, the house allows one to dream in peace." When a patient is ill, the treatment facility becomes their temporary home, a place in which the dreamer needs protection within their return to normal, independent schedules and lifestyles.

Figure 4.6

The moods of our homes depict where we are most at ease in the external environment. The meandering, descending form of the passageway invites visitors in such that one must face sickness and make an active, individual choice on their limitations. Each curve of the structure pulls your body in towards its splanchna into the drama of the piece's performance.

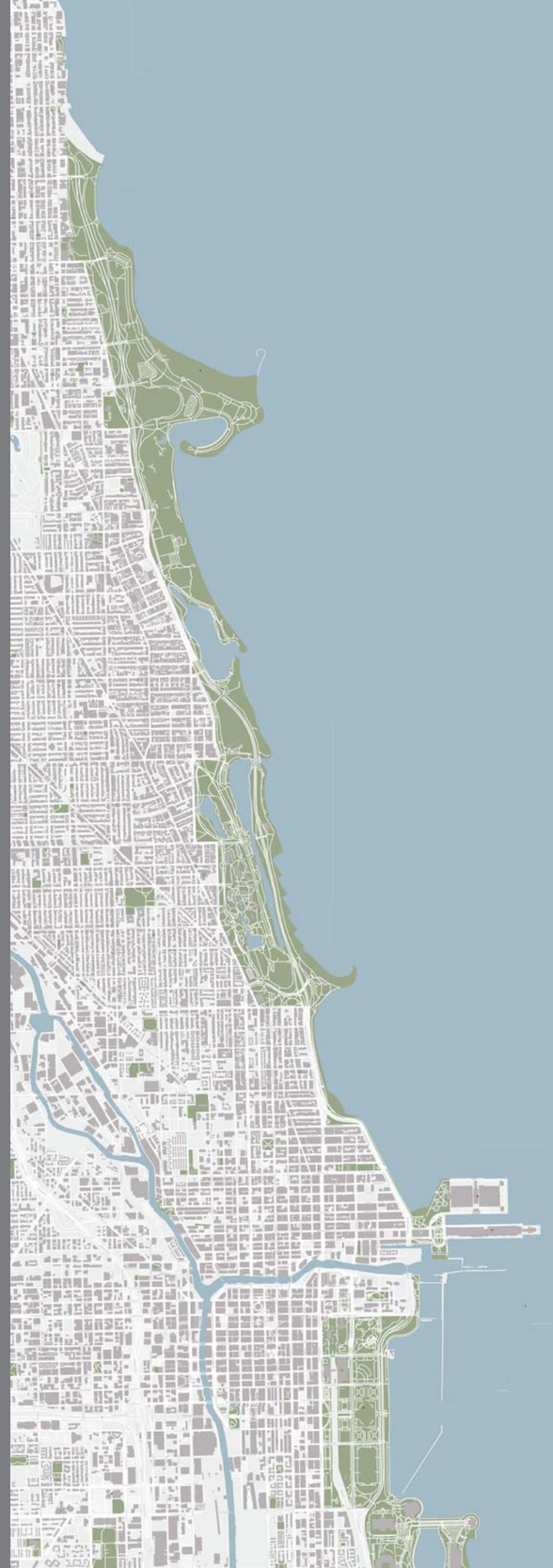
Figure 4.7

The treatment center will no longer focus on intellect over the concept of home being "the inner shell of man". Treatment will allow patients to remain part of the world amidst the 'falling out of things' to set its own stage for recovery. It will place the visceral language of the patient into the external environment to find clarity in life's most disabling time.

Figure 4.8

Site Analysis

Case studies that are influential to the understanding of needs the thesis project may have that others have done successfully or unsuccessfully.



CHICAGO

Chicago is the 3rd largest city in the United States with a population of nearly 3 million people.

- 40 million people visit annually
- There are 77 community areas containing more than 100 neighborhoods

237 square miles of land

- 26 miles of lake front
- 15 miles of beaches
- 19 miles of lake front bike paths
- 552 parks

Figure 5.0

CHICAGO DEMOGRAPHICS

2,695,598 people are residents in the city of Chicago. The city is home to a variety of races, ages, and sexes. IBD is primarily diagnosed in the early 20s and this data shows the high population of individuals of this age group. It is also common in both sexes. Because of the large number of visitors and residents. This city is focal point for drawing attention to chronic disease care for IBD patients.

Figure 5.1

SITE

65,000 SF

259' x 262' x 250' x 262'

Figure 5.2

EDGEWATER

Edgewater, one of the 77 official community areas, hugs the shores of Lake Michigan and is just 7 miles north of downtown Chicago. It is known for its large beaches and park space. The historic Bryn Mawr Avenue marks the city's 1920's era and includes Belle Shore Apartment Hotel and Edgewater Presbyterian Church. The site of the new treatment center is across the street to the north of the Belle Shore Apartment Hotel and East of the Presbyterian Church. The shoreline is lined with high-rise apartments while the west side is covered with commercial spaces, family homes and condominiums. The area was also home to a historic Edgewater Hospital that was abandoned since 1990 and recently torn down for construction of apartment buildings. The population of Edgewater is 56,521 and is 50 mins from the city center by the Red Line.

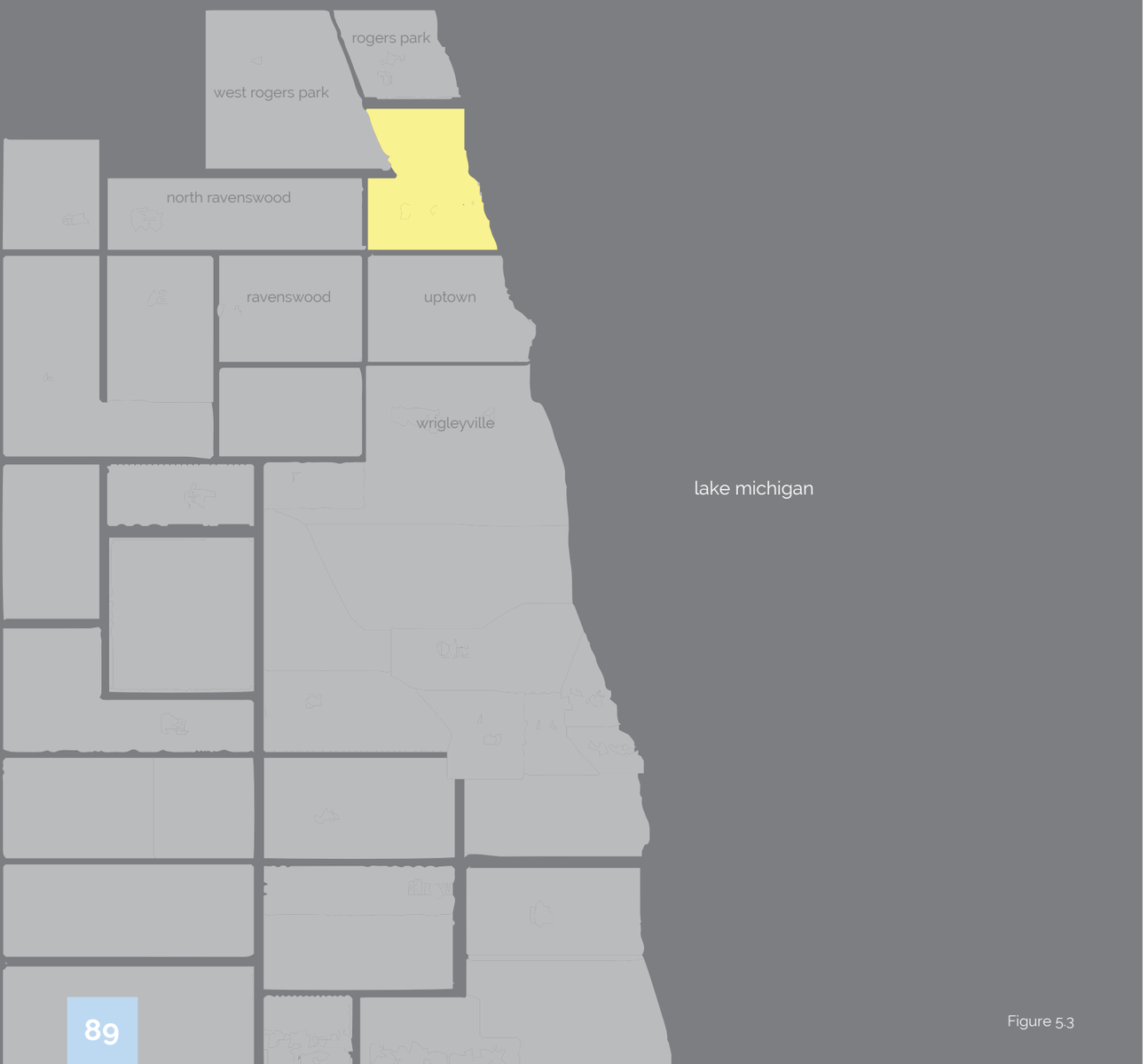


Figure 5.3

Figure 5.4

5625 & 5627 NORTH SHERIDAN ROAD







Images show the on-site scope of the setting. There is a large quantity of high rises surrounding the site and a church to the north. Currently, the site features a high rise and a large parking lot dedicated to the church. The goal is to remove the high rise to accommodate for better access, views, and natural light for the new center.

Figure 5.5, 5.6, 5.7, 5.8, 5.9, 5.10, 5.11

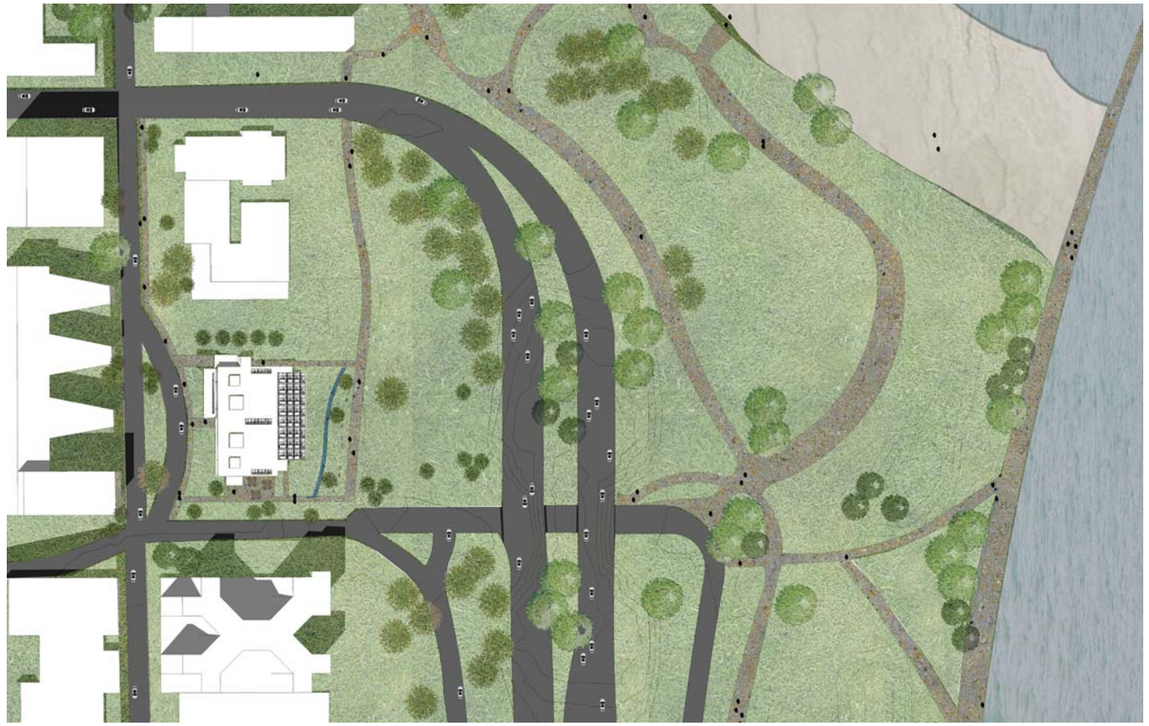


Figure 5.12

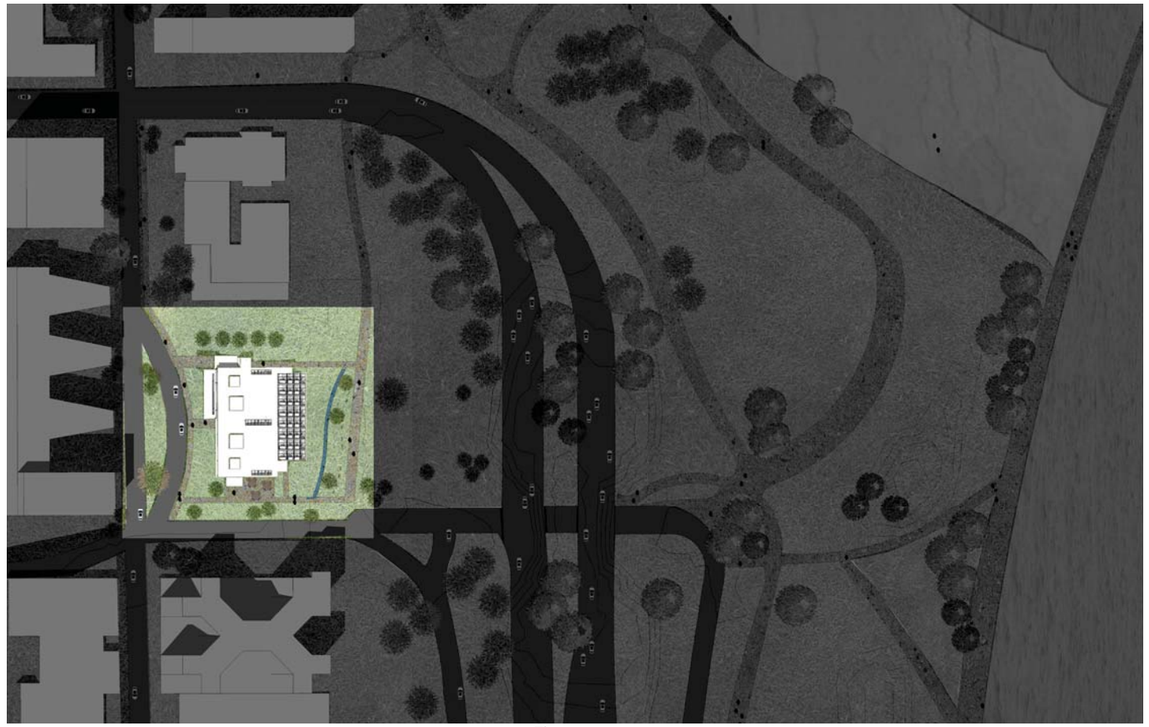
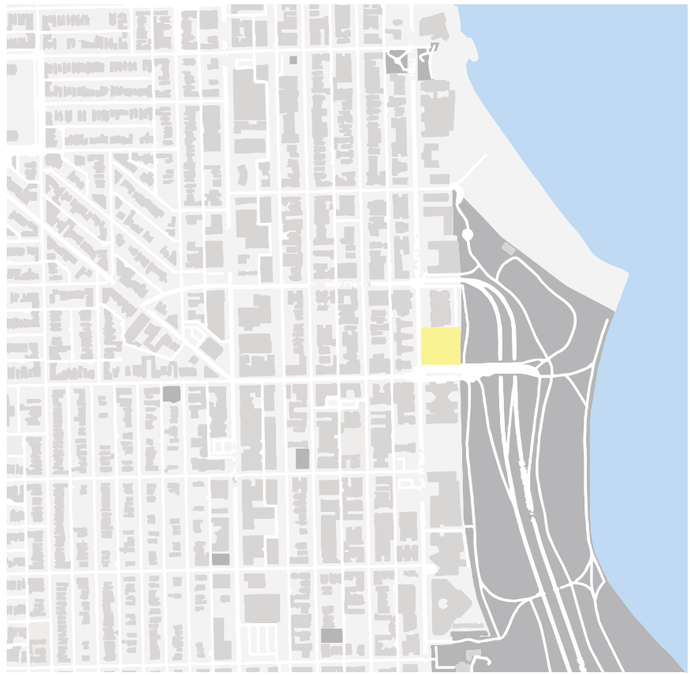


Figure 5.13



WATER

The proximity of the water next to the site adds to the visual stimulations for the patients. This creates a beautiful backdrop for integrating nature and views.

METRO

The current site is a 4min walk from the nearest metro station which connects to the Red Line heading south to North Loop.

GREENERY

The proximity of green space adds to the patient and visitor experience for exercise, passing time, and allowing nature to be implemented into the space. The entrance to the large walking and biking path is located on the sidewalk to the south of the site.

MAJOR ROADS

Foster Ave. West, N. Sheridan Rd, HWY 41, and W. Peterson Ave are all major roadways that surround the site.

Figure 5.14, 5.15

Figure 5.16, 5.17

SUN STUDY & ANALYSIS

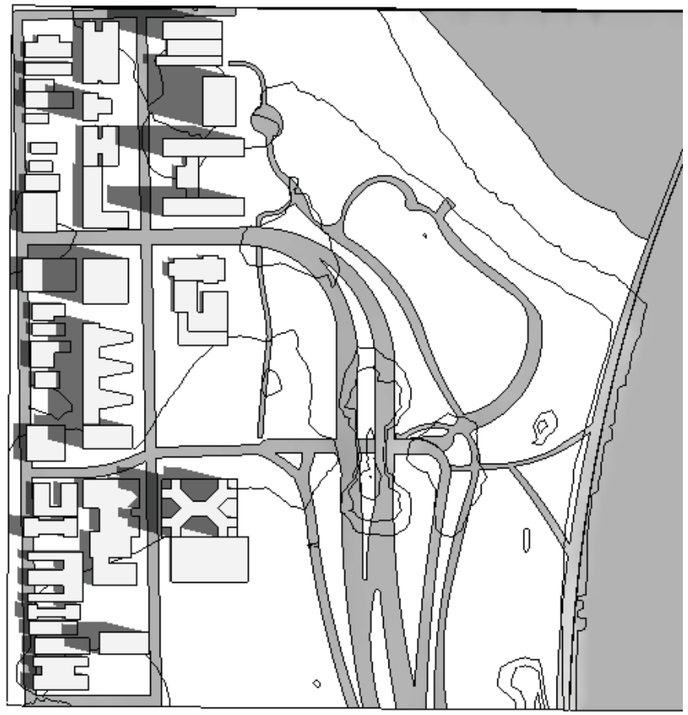


Figure 5.18

9 AM

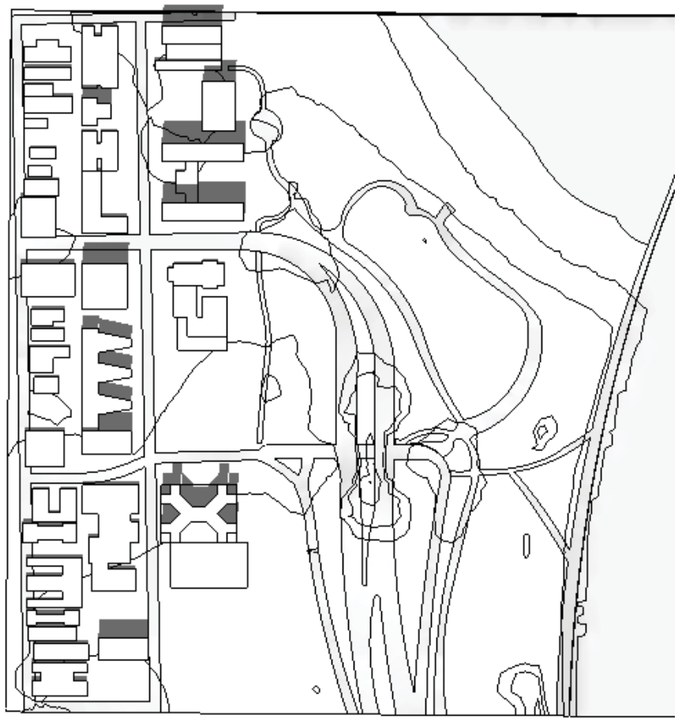


Figure 5.19

12 PM

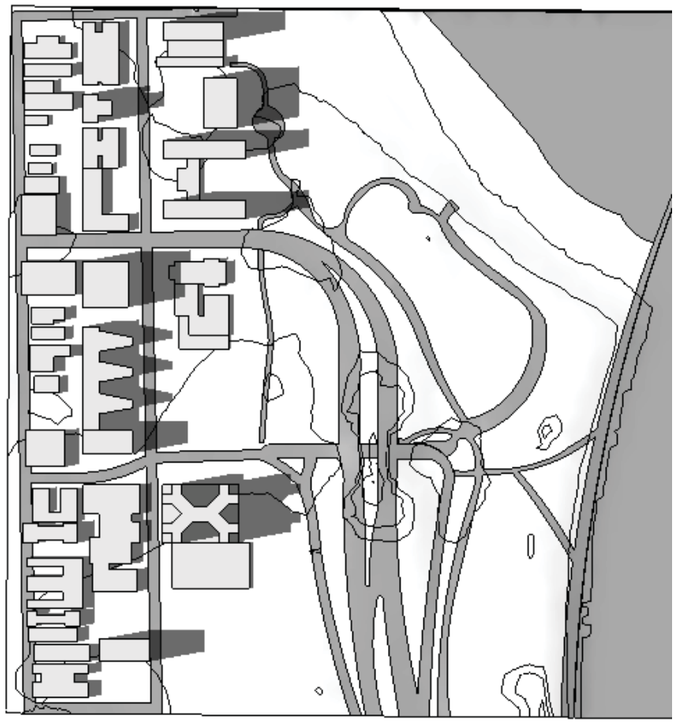


Figure 5.20

3 PM

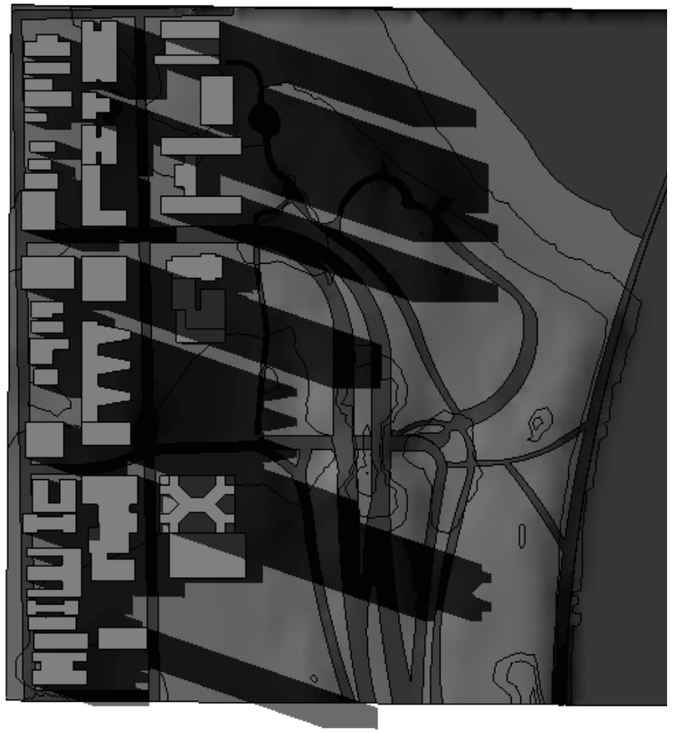
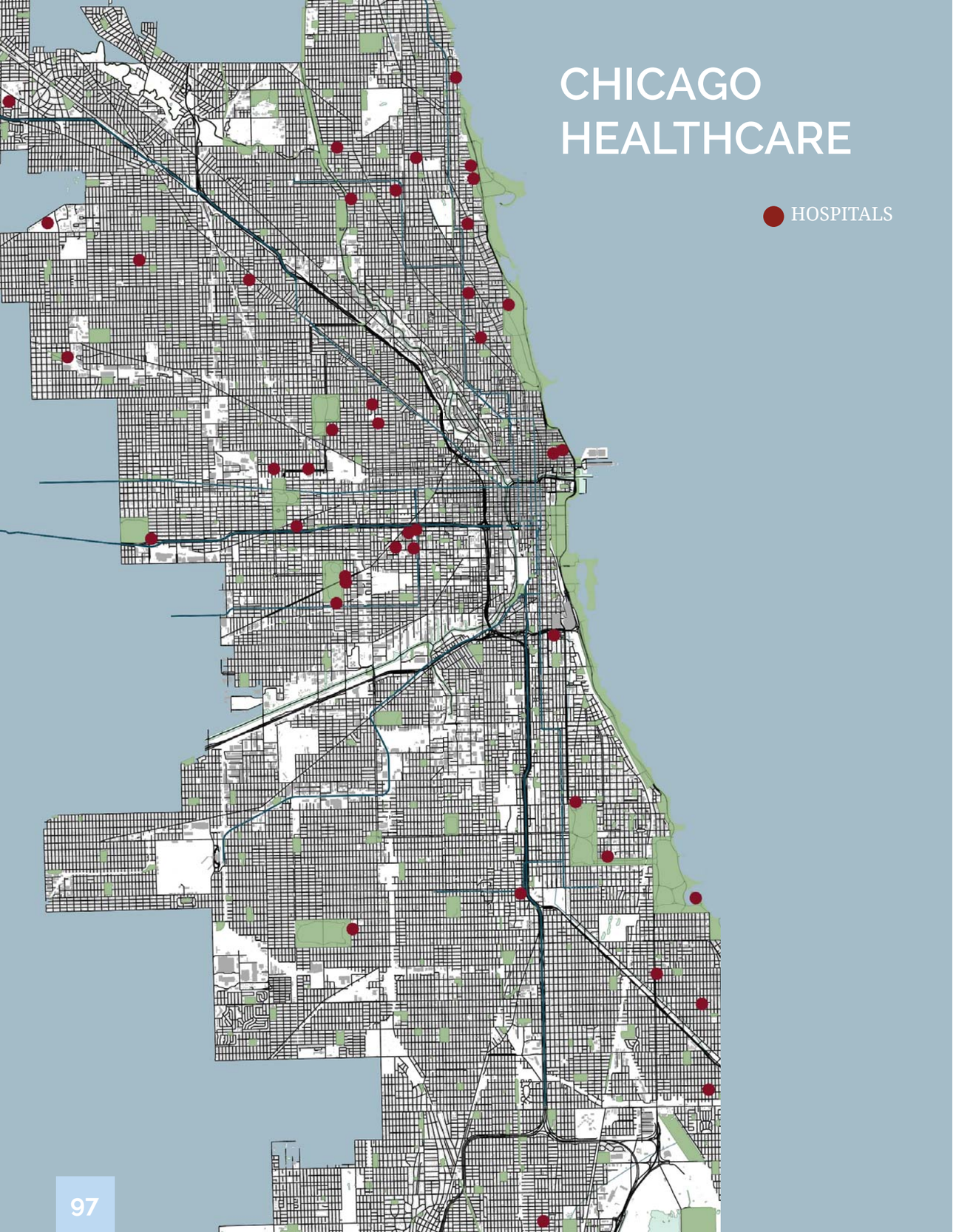


Figure 5.21

6 PM

A sun study of the existing site to analyze how the surrounding high-rises and landscape affect the site's natural light, views, and location of new center. The sites location allows for a great source of natural lighting to be used in the interior of the building. This allows for patient room to receive great morning light.



36 HOSPITALS ARE IN CHICAGO

1.	Northwestern Memorial Hospital	0:25	0:15
2.	Rush University Medical Center	1:00	0:30
3.	University of Chicago Medical Center	1:15	0:35
4.	University of Illinois, Chicago	1:00	0:30
5.	Advocate Illinois Masonic Medical Center	0:30	0:20
6.	Swedish Covenant Hospital	0:30	0:15
7.	Advocate Trinity Hospital	0:20	0:15
8.	Ann and Robert H. Lurie Children's Hospital of Chi-	0:55	0:15
9.	cago	0:15	0:05
10.	Aurora Chicago Lakeshore Hospital	1:20	0:45
11.	Chicago-Read Mental Health Center	1:30	0:45
12.	Hartgrove Hospital	1:30	0:45
13.	Holy Cross Hospital	1:15	0:35
14.	Jackson Park Hospital and Medical Center	1:00	0:30
15.	Jesse Brown Veterans Affairs Medical Center	1:00	0:25
16.	John H. Stroger Jr. Hospital of Cook County	1:00	0:35
17.	Kindred Chicago-Central Hospital	1:20	0:40
18.	La Rabida Children's Hospital	1:30	0:30
19.	Loretto Hospital	1:00	0:25
20.	Mercy Hospital and Medical Center	0:20	0:10
21.	Methodist Hospital of Chicago	1:15	0:30
22.	Mount Sinai Hospital	1:00	0:30
23.	Norweigan American Hospital	1:10	0:40
24.	Presence Our Lady of Resurrection Medical Center	0:40	0:20
25.	Presence St. Joseph Hospital	1:00	0:30:
26.	Presence Sts. Mary and Elizabeth Medical Center	1:00	0:30
27.	Provident Hospital of Cook County	0:25	0:15
28.	Rehabilitation Institute of Chicago	1:15	0:40
29.	Resurrection Medical Center	1:15	0:25
30.	RML Specialty Hospital	1:15	0:40
31.	Roseland Community Hospital	1:15	0:30
32.	Schwab Rehabilitation Hospital	1:30	0:50
33.	Shriners Hospitals for Children-Chicago	1:30	0:40
34.	South Shore Hospital	1:10	0:30
35.	St. Anthony Hospital	1:00	0:30
36.	St. Bernard Hospital and Health Care Center	0:20	0:05
	Thorek Memorial Hospital		

Time By Transit To Site

Time By Vehicle To Site

Hospitals With IBD Programs

Figure 5.22

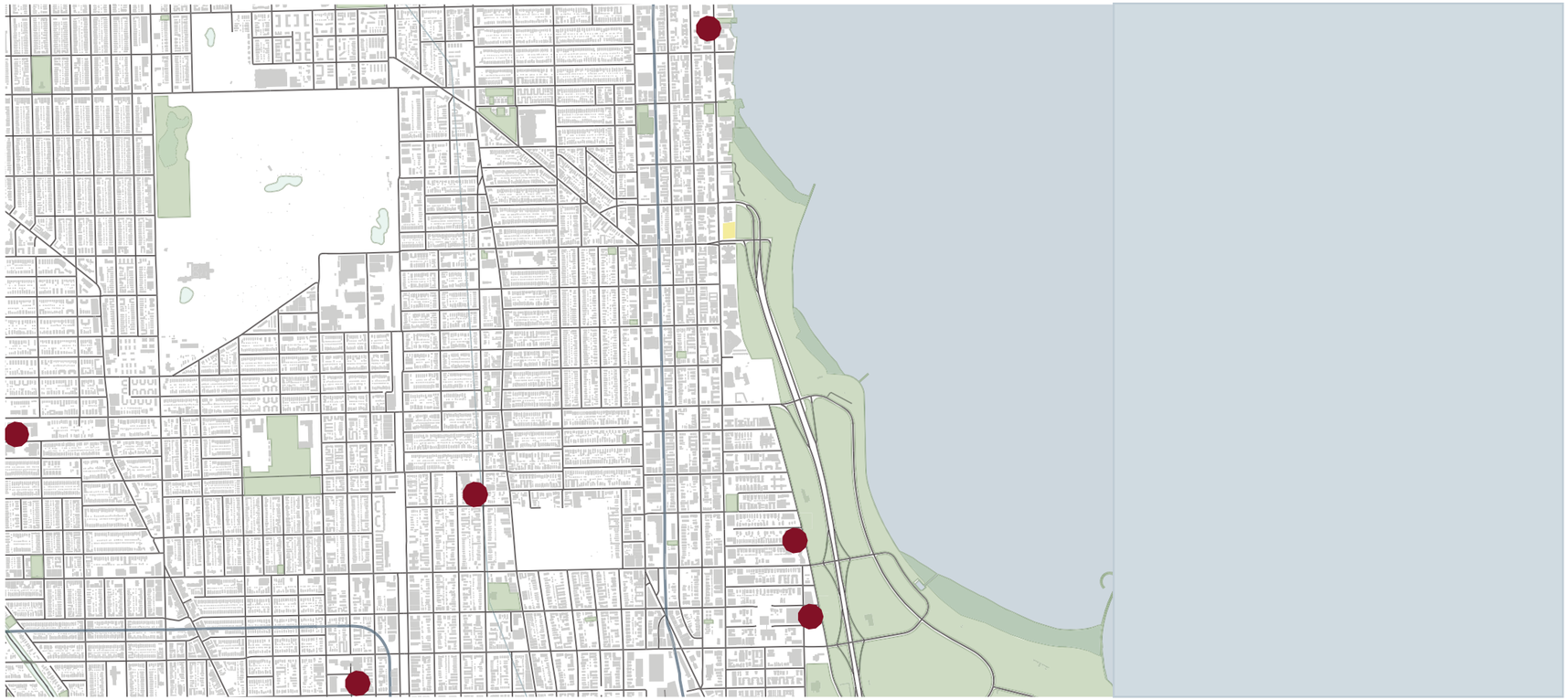


Figure 5.23

HOSPITALS NEAR SITE

1. ANN & ROBERT H. LURIE CHILDREN'S HOSPITAL

SF: 1.25 MILLION
FLOORS: 23
COMPLETED: 2012
FOUNDED: 1882

- Pediatric specialty hospital
- Streeterville neighborhood
- 1,200 physicians
- 4,000 employees
- 70 pediatric specialties
- Ranked #1 for pediatric specialties regionally
- Care for more than 148,000 children annually
- Care for every U.S. state and 35 countries

2. ADVOCATE TRINITY HOSPITAL

SF: Unknown
FLOORS: 5
COMPLETED: 1939
FOUNDED: 1895

- Acute Care Hospital
- Calumet Heights neighborhood
- Non-Profit
- Emergency Services
- 263 beds
- 90 patients a year
- Same-day surgery
- Outpatient testing
- 300 physicians
- 50 specialties

3. LOUIS A. WEISS MEMORIAL HOSPITAL

SF: 135,000
FLOORS: 5
COMPLETED: 2000
FOUNDED: 1952

- General medical and surgical hospital
- Uptown neighborhood
- 263 beds
- 450 doctors
- 42 medical specialties
- 800 employees
- Joint commission-accredited facility
- Emergency Services
- 25,979 ED visitors, 6,696 admissions, 1,648 inpatient and 4,266 outpatient surgeries

4. AURORA-CHICAGO LAKE SHORE HOSPITAL

SF: 50,000
FLOORS: 5
COMPLETED: 2000
FOUNDED: 1882

- Psychiatric and Substance Abuse Hospital
- Uptown neighborhood
- Private treatment center
- Treats adults, children and adolescents
- Alcohol or drug abuse
- 146 beds

5. METHODIST HOSPITAL OF CHICAGO

SF: 440,000
FLOORS: 23
COMPLETED: 1925
FOUNDED: 1925

- General medical and surgical hospital
- Andersonville neighborhood
- Variety of specialists
- 168 beds
- Intensive Care Unit
- Ambulatory care/ED

6. KINDRED CHICAGO LAKESHORE HOSPITAL

SF: 50,000
FLOORS: 6
COMPLETED: 1985
FOUNDED: 1985

- Transitional care and specialty hospital
- Edgewater neighborhood
- Post-acute care
- Long-term acute care
- 103 beds
- Medically complex care
- Rehabilitation program, wound care management, and pulmonary/ventilator care

Building Program

Overall Square-Footage: 60,000 - 80,000

PROGRAM NARRATIVE & PROBLEM STATEMENTS

Narrative
The facility incorporates the needs of patients, staff and visitors. However, with the traditional approach to architecture, the patients have been on the outside of the planning with the awe of the visitors and primarily the staff as the focus. The program will focus on embodying all the specific needs of the healthcare facility for the wellness of the patients but allow space to be a cumulation from the patient's needs.

Function
Since the project intends to focus on the patients of IBD themselves, the treatment center should provide for their specific needs for healing spaces such as; public spaces, emergency medicine, diagnostics, laboratories, in-patient rooms, dietary services, pediatric in-patient rooms, a pharmacy, administrative/business offices and meeting rooms, education spaces, research laboratories, a clinic, surgery areas, and alternative medicine accommodations.

Since the project intends to provide for the overall comfort of the patients, the proposed plan should allow for an integration of nature, improved patient control, and an integration of technology.

Since the home-like feel is an important element of the spatial environments, the patient rooms should allow for the incorporation of nice views, comfortable lighting, flexibility, and space for visitors and loved ones to be near them at all times.

Economy
Since the facility depends on its constant population, integrating public spaces, education spaces, further research on the disease and its progressions, and well-developed public spaces will give it a life-long use even when the patients may be healthy.

Form
Since the facility hopes to provide the ultimate healing environment for the users, the project should create an innovative, comfortable experience that focuses on the patients personal needs and showcases the further studies of innovation to keep it forever adapting for its patients.

Time
Since the facility hopes to make a lasting impression on the care for those with chronic diseases, it must accommodate by bridging the healthy and sick phases of the disease while educating the population about the disease.

Initial Space List: Total SFT= 60095

Space Name	People	Capacity	Units	Area/Unit	Net Area	Net Area Subtotal
Public Space	211	335	272	1121	6814	6814
Main Entrance	10	20	1	150	150	
Café	15	25	25	15	375	
Retail Space	15	25	25	5	125	
Waiting Area	20	30	30	22	660	
Reception/Reg.	2	4	4	65	260	
Toilets	12	12	3	200	600	
Cafeteria	20	40	40	5	200	
Dining Commons	50	100	100	15	1500	
Meditation Room	15	20	6	109	654	
Security	2	4	4	65	260	
Fitness Center	25	25	25	50	1250	
Family Consult Room	16	16	4	100	400	
Play Area	4	4	4	20	80	
Spa	5	10	1	300	300	
Emergency Room	103	137	62	1970		3582
Physician/nurse fishbowl	4	6	6	20	120	
Critical Care Rooms	6	10	2	150	300	
Reception/Reg.	4	6	6	65	390	
Ambulatory Bay	11	11	1	892	892	
Triage Room	2	3	1	144	144	
Waiting Area/Lobby	28	28	28	22	616	
Exam Rooms	30	50	10	10	100	
Consultation Room	2	3	2	144	288	
Trauma Rooms	6	10	2	144	288	
Workstations/Charting	2	2	1	164	164	
Toilets	2	2	2	65	130	
Break Room	6	6	1	150	150	
Diagnostics	32	33	20	2222		2901
CT Suite	3	3	1	480	480	
X-Ray Suite	6	6	2	320	640	
MRI Suite	3	3	1	980	980	
Lobby/Waiting Area	8	8	8	22	176	
Reception/Reg.	1	2	2	65	130	
Nurse Station	2	2	2	20	40	
Radiologist / Tech Stations	2	2	2	120	240	
Break Room	6	6	1	150	150	
Toilets	1	1	1	65	65	
Laboratory	32	36	17	1322		1641
Reception	2	2	2	65	130	
Blood Collection Room	3	3	1	320	320	
Sample Receiving/Outsourcing	2	2	1	120	120	
Laboratory	6	8	1	480	480	
Waiting Area	8	8	8	22	176	
Toilets	1	1	1	65	65	
Offices	4	6	2	100	200	
Break Room	6	6	1	150	150	
In-Patient	144	240	90	1376		12737
Care Team Stations	6	10	10	30	300	
Patient Rooms	96	160	32	320	10240	
Break Room	8	16	1	300	300	
Family Lounge	10	20	20	22	440	
Doctor Offices	2	3	2	120	240	
Reception/Reg.	2	3	3	65	195	
Exam Room	2	3	1	144	144	
Common Area	10	15	15	22	330	
Consultation Room	2	3	1	144	144	
Toilets	4	4	4	65	260	
On Call Room	2	3	1	144	144	
Dietary Services	38	48	23	596		1522
Exam Rooms	12	20	4	144	576	
Offices	6	6	2	120	240	
Nurse Station	3	4	4	30	120	
Reception/Reg.	2	3	3	65	195	
Toilets	1	1	1	65	65	
Waiting Area	8	8	8	22	176	
Break Room	6	6	1	150	150	
Pharmacy	32	34	18	1286		1690
Reception/Reg.	2	3	3	65	195	
Offices	6	6	2	120	240	
Receiving	1	2	1	120	120	
Toilets	1	1	1	65	65	
Break Room	6	6	1	150	150	
Consultation Room	2	2	1	144	144	
Shelving//Pharmacy	6	6	1	600	600	
Waiting Area	8	8	8	22	176	
Admin/business	80	80	40	1035		5190
Offices	45	45	15	120	1800	
Break Room	8	8	2	150	300	
Toilets	6	6	6	65	390	
Conferece Rooms	6	6	2	600	1200	
Multi-Purpose Room	15	15	15	100	1500	

Education	40	40	26	795		3300
Information Center	10	10	10	65	650	
Resource Library	8	8	8	65	520	
Education rooms	12	12	4	400	1600	
Toilets	8	8	2	200	400	
Reception	2	2	2	65	130	
Research	41	41	10	1465		1965
Laboratory	8	8	1	600	600	
Offices	18	18	6	100	600	
Technology Lab	6	6	1	500	500	
Toilets	1	1	1	65	65	
Break Room	8	8	1	200	200	
Clinic	70	90	46	416		2600
Offices	6	6	2	120	240	
Exam Rooms	30	50	10	144	1440	
Waiting Area	30	30	30	22	660	
Registration/Rec.	2	2	2	65	130	
Toilets	2	2	2	65	130	
Surgery	78	98	45	2777		6242
Operating Rooms	10	20	2	800	1600	
Sterilization Area	6	6	1	200	200	
Procedure Rooms	10	20	2	800	1600	
Recovery Area	4	4	4	120	480	
Patient Prep	4	4	4	120	480	
Reception/Reg.	2	2	2	65	130	
Decontamination Area	6	6	1	200	200	
Scrub Areas	8	8	4	65	260	
Anesthesia Room	4	4	1	200	200	
Discharge Area	4	4	4	120	480	
Meeting Room	4	4	4	65	260	
Waiting Area	16	16	16	22	352	
Alternative Medicine	24	32	16	296		1012
Exam Rooms	12	20	4	144	576	
Toilets	2	2	2	65	130	
Waiting/Lobby	8	8	8	22	176	
Registration/Rec.	2	2	2	65	130	

Support	46	55	31	3029		4885
Mechanical	4	4	1	2000	2000	
Maintenance	5	10	5	200	1000	
Housekeeping	5	5	5	100	500	
Storage	5	5	5	100	500	
Soiled Linen	5	5	5	7	35	
Clean Linen	5	5	5	7	35	
Electrical	2	2	1	200	200	
Break Room	8	8	1	150	150	
Toilets	1	1	1	65	65	
Offices	6	10	2	200	400	
Pediatric In-Patient	62	81	36	1276		4014
Care Team Stations	3	3	3	30	90	
Patient Rooms	24	40	8	320	2560	
Break Room	8	8	1	200	200	
Family Lounge	8	8	8	22	176	
Doctor Offices	1	1	1	120	120	
Reception/Reg.	2	2	2	65	130	
Exam Room	2	3	1	144	144	
Common Area	8	8	8	22	176	
Consultation Room	2	3	1	144	144	
Toilets	2	2	2	65	130	
On Call Room	2	3	1	144	144	

Figure 6.0

Initial Building Area Summary

Building Area	Phase 1				
Space Name	People	Capacity	Net Area	Net:Gross	Gross Building Area
Public Space	211	350	6814	1.4	9539.6
Emergency Room	103	137	3582	1.45	5193.9
Diagnostics	32	33	2901	1.5	4351.5
Laboratory	32	36	1641	1.25	2051.25
In-Patient	144	240	12737	1.4	17831.8
Dietary Services	38	48	1522	1.35	2054.7
Pharmacy	32	34	1690	1.25	2112.5
Pediatric In-Patient	62	81	4014	1.4	5619.6
Admin/business	80	80	5190	1.4	7266
Education	40	40	3300	1.35	4455
Research	41	41	1965	1.25	2456.25
Clinic	70	90	2600	1.35	3510
Surgery	78	98	6242	1.6	9987.2
Alternative Medicine	24	32	1012	1.4	1416.8
Support	46	55	4885	1.25	6106.25
Totals	1033	1395	60095	20.6	83952.35

Figure 6.1

Initial Land Use Requirements

Building Area	Phase 1						
Space Name	People	Gross Building Area	Floors	Building Footprint	Parking Spaces	GAC	Land Use
Public Space	211	9539.6	4	2384	19	2.80%	1843
Emergency Room	103	5193.9	1	5193	17	8%	5194
Diagnostics	32	4351.5	1	4351	21	67%	43516
Laboratory	32	2051.25	1	2051	4	3.20%	2051
In-Patient	144	17831.8	3	5943	35	9.10%	5944
Dietary Services	38	2054.7	1	2054	10	3.20%	2055
Pharmacy	32	2112.5	1	2112	4	3.30%	2113
Pediatric In-Patient	62	5619.6	2	2809	11	4.30%	2810
Admin/business	80	7266	3	2421	24	3.70%	2422
Education	40	4455	2	2227	14	3.40%	2227
Research	41	2456.25	2	1228	4	1.90%	1228
Clinic	70	3510	1	3510	7	5.40%	3510
Surgery	78	9987.2	2	4993	19	7.70%	4993
Alternative Medicine	24	1416.8	1	1416	7	2.20%	1417
Support	46	6106.25	5	1221	12	1.90%	1221
Totals	1033	83952.35		43913	208	8.47%	82544

User Type	Users
Visitors	700
Patients	150
Staff	133
Service	50

Figure 6.2

SPATIAL PROGRAM

Public Space

Space for Learning
Space for Gathering
Space for Normalizing
Space for Relaxing
Space for Rushing

Semi-Private Space

Space for Supporting
Space for Connecting
Space for Moving
Space for Discovering
Space for Assisting

Private Space

Space for Controlling
Space for Transitioning
Space for Researching

Figure 6.3

Public Space

10 Emergency Patient Rooms
Large Gathering Space
Archives
Lobby & Break-out Space
Cafeteria, Coffee Shop & General Store
Pharmacy
Diagnostics & Imaging

Semi-Private Space

5 Employee Offices & 2 Meeting Rooms
Nurse Stations for Each Department
4 Family Rooms

Private Space

24 Patient Rooms
2 Procedure Rooms
2 Operating Rooms

Figure 6.4

Code Analysis

An analysis of the code requirements for the design of the treatment facility.

CODE NARRATIVE

The code analysis showed the importance of code, structure, and materiality in a healthcare facility. Due to the construction type, the facility can be an unlimited number of stories and square-feet per floor. This allows for a lot of flexibility in regards to the spatial layout and scale of the treatment center. Going forward, the building will need to look towards Chicago building code to further clarify the needs of space. Another component, drawn from the study, is the need to make sure the facility is ADA in all areas needed. Once the number of stories are established, the occupancy load and exits will then be clarified.

Hospitals are an I-2 building type or considered an Institutional building. The following facility, however, will incorporate business, assembly, mercantile, and storage spaces within the program. These other types will be the learning spaces, cafe, store, meeting rooms, class rooms, and storage for the facility overall.

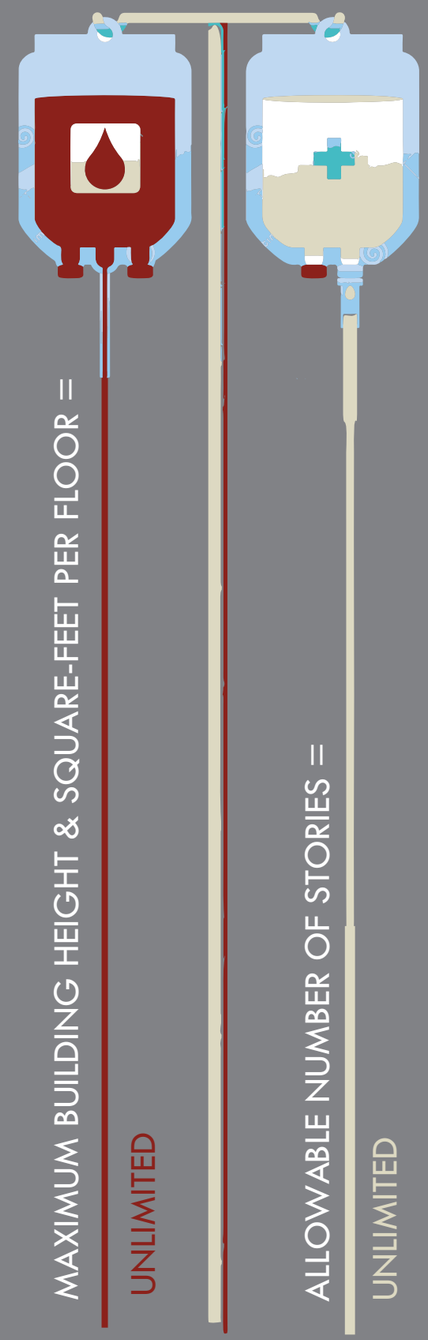
Because of the desire to go above 5 stories, the building will be constructed in construction type 1-A. Type 1 construction includes non-combustible materials, except as permitted. This is due to the patients assumed lack of mobility in a care facility and will result in overall increase in cost.

The use of 1-A construction allows for unlimited building height, square-feet per floor, and number of stories. The specific project must decide based on Chicago code and need for these following categories.

CODE ANALYSIS

BUILDING TYPE I-2

CONSTRUCTION TYPE
1-A



MAXIMUM BUILDING HEIGHT & SQUARE-FEET PER FLOOR =
UNLIMITED

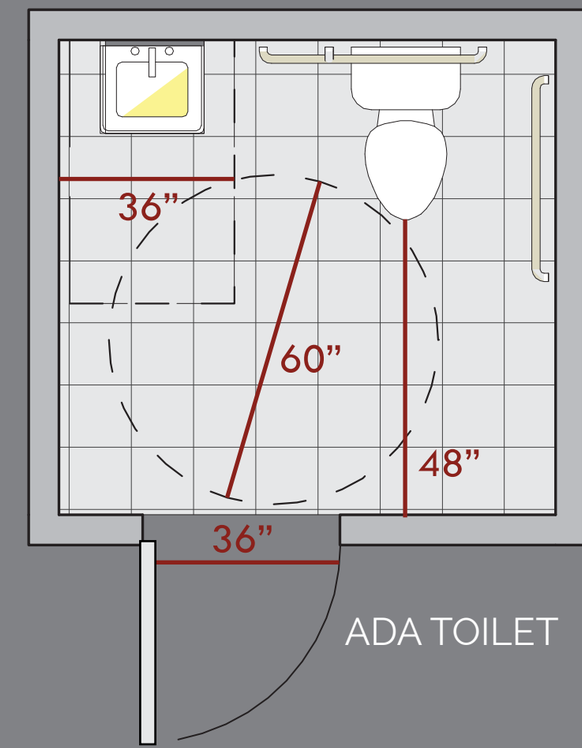
ALLOWABLE NUMBER OF STORIES =
UNLIMITED

WATER CLOSETS
patients: 1 per room
visitors: 1 per 75

LAVATORIES
patients: 1 per room
visitors: 1 per 100

DRINKING FOUNTAINS
patients: 1 per 100
visitors: 1 per 500

SHOWERS/BATHROOMS
patients: 1 per 8



OCCUPANCY LOAD:

INPATIENT TREATMENT
240 gross x ∞

OUTPATIENT TREATMENT
100 gross x ∞

SLEEPING AREAS
120 gross x ∞

MAXIMUM EXIT WIDTH:

72in x ∞ / 36 in

30in x ∞ / 36 in

36in x ∞ / 36 in

* ∞ = overall square feet once determined

Figure 7.0

Proceeding Plan

A detailed plan for going forward in the thesis project including design methodology, future documentation, and a specific schedule.

RESEARCH DIRECTION DEFINED

Logical System

The thesis will use a Logical System to attempt to make sense of phenomena. It will utilize ideas to create a coherent system or order and attempt to recognize and synthesize the research. The thesis will be developed through the literature of the meta-theoretical such as phenomenology and other texts such as: The Enigma of Health, Attunement, Built upon Love, Poetics, and others.

Utilizing text, it will create representation models, process models, evaluation models, change models, impact models and decision models. It will also produce new knowledge for healthcare design by shaping, reflecting upon, and transforming the relationships between categories and concepts. Overall, it will enable new ways of seeing, knowing and acting in the physical environment.

Interpretive Method

The Interpretive System shows how not all events, actions, words and images are plain and obvious and they need an understanding of phenomena to “make sense” what is being researched. In this thesis, it will show the deeper understanding of the patient and their healing environment. For healing is not as simple and straight forward as what is currently depicted in institutional facilities.

Utilizing historiography, the thesis will be studied with the help of published writings, achieved documents, and other forms of written or graphical evidence. It will then interpret the historical precedence of Healthcare Architecture and the mindset of the patient with the aid of phenomenology and other theoretical texts. These will then become a set of design practices and forms. This will be done not only through the project but through the preliminary artefact.

Design Research

This research strategy will incorporate new configurations, relationships, possibilities, and new realities. The findings will contribute to the developments in healthcare architecture. It will connect the thesis research question to a wider set of disciplinary framework. Not only will the design be accomplished through a variety of precedent analysis but also through the study of the artefact.

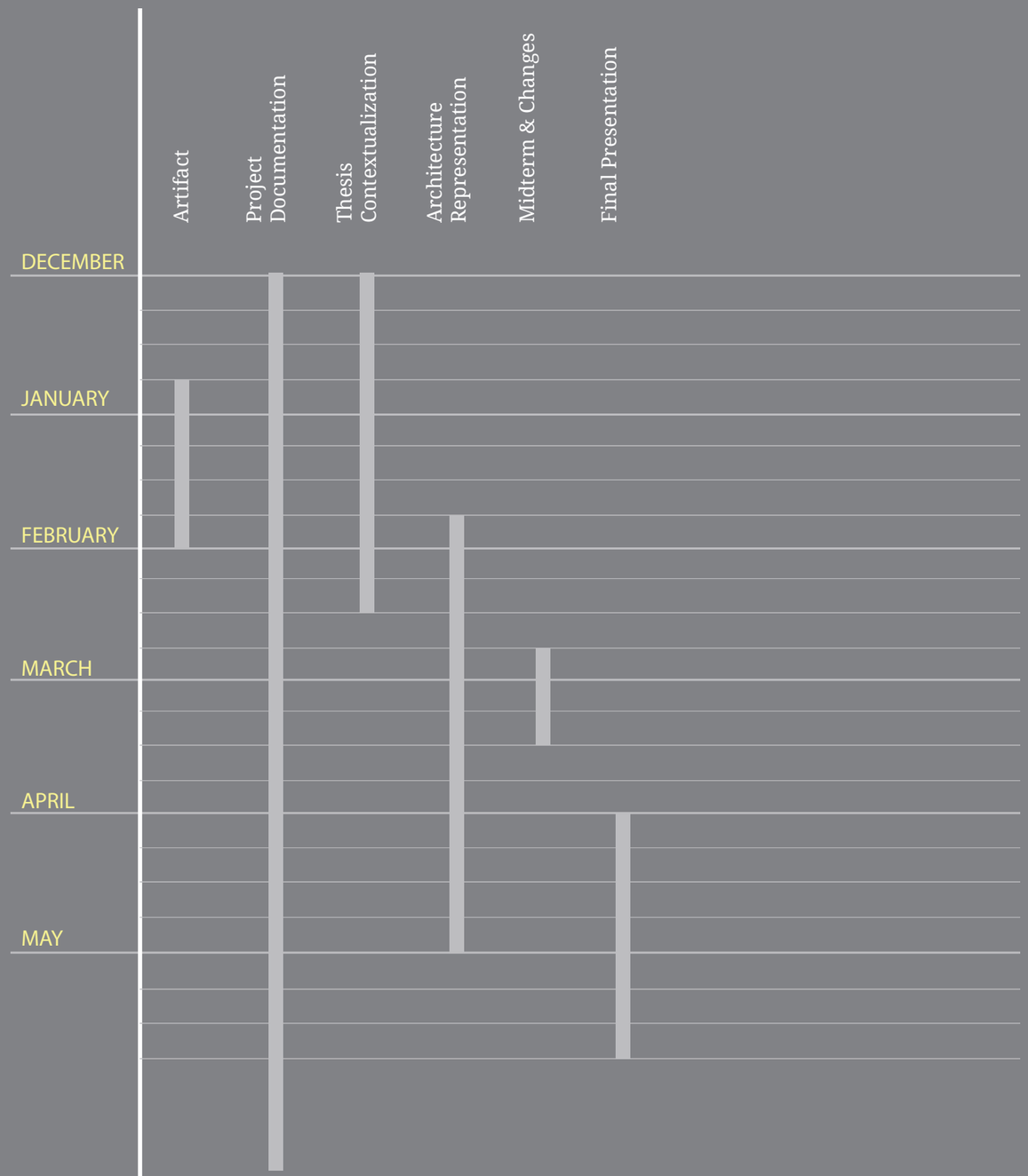


Figure 8.0

METHODOLOGY & PROCESS

Design Methodology Plan

The following project will utilize Phenomenological resources to add to the contextualization of the given thesis. It will also use patient testaments, patient experiences, staff experiences and visitor experiences to make a well-rounded opinion on where healthcare stands today. From there, the thesis will process the context to formulate an architectural response. Through the digestion of context, other resources, direct experiences, and an artefact, the project will pull the strengths out of the written word and representative piece to form conclusions on the new needs of patients in the built environment. With a basis of healthcare design, the texts will then facilitate in bringing change and establishing new strengths.

Design Process Plan

The project will be designed using Revit, scale models, and Autodesk Cloud. Final renderings and boards will be modified using the Adobe Suite: Illustrator, InDesign, and Photoshop. The artefact will be put together with varying materials and methods such as: video software, plaster, light and other resources. Together, they will create both a well thought out contextualization and representation of the thesis.

Process

A process of exploration and design discovery through the use of modeling and sketching.

Figure 9.0

Figure 9.1

Process Model 1

Figure 9.2

Figure 9.3

Process Model 2

Figure 9.4

Figure 9.5

Process Model 3

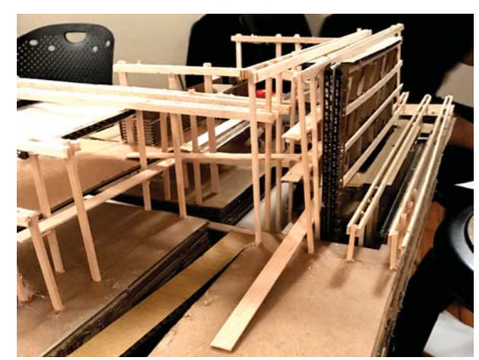


Figure 9.6

Figure 9.7

Process Model 4

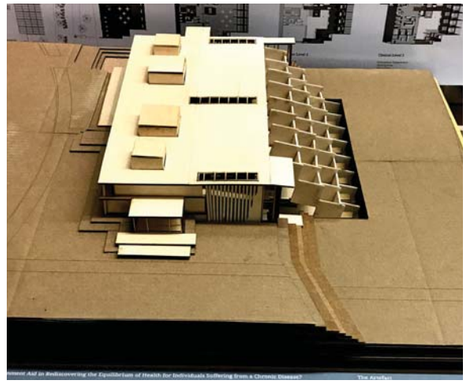


Figure 9.8

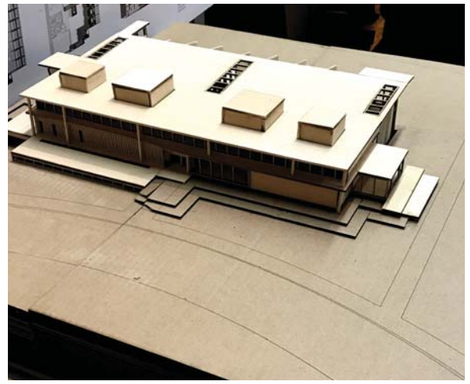


Figure 9.9

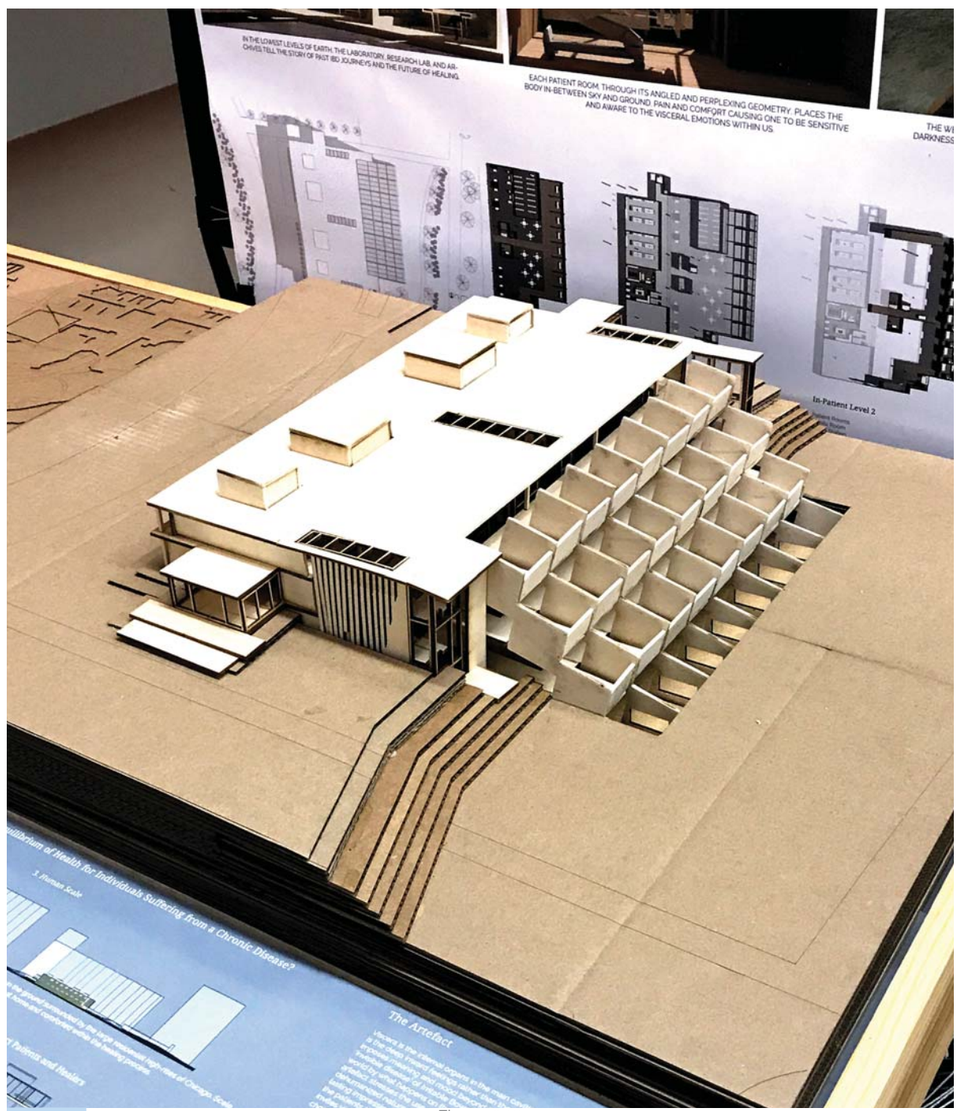


Figure 9.10

Final Model

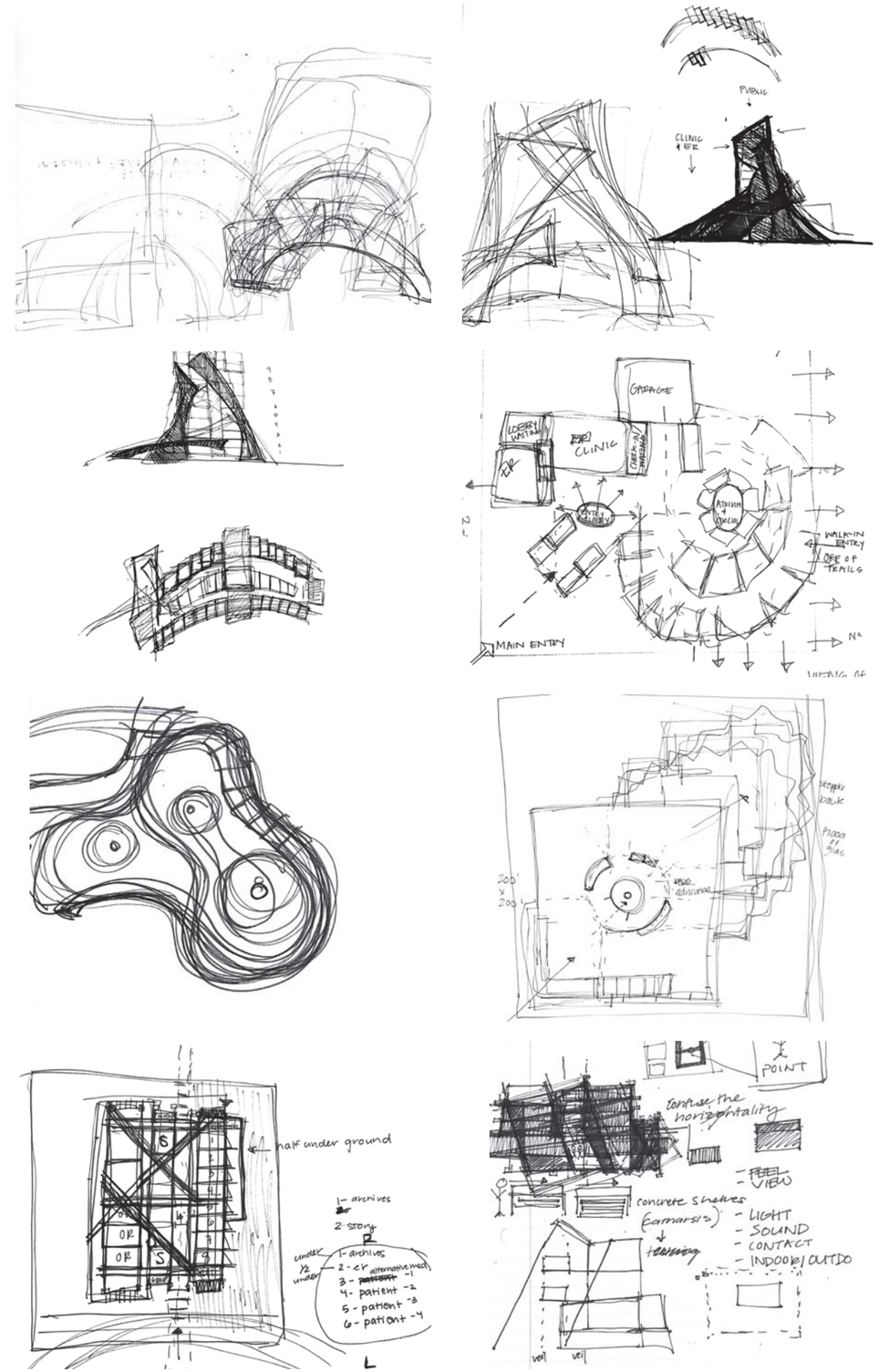


Figure 9.11

Process Sketches

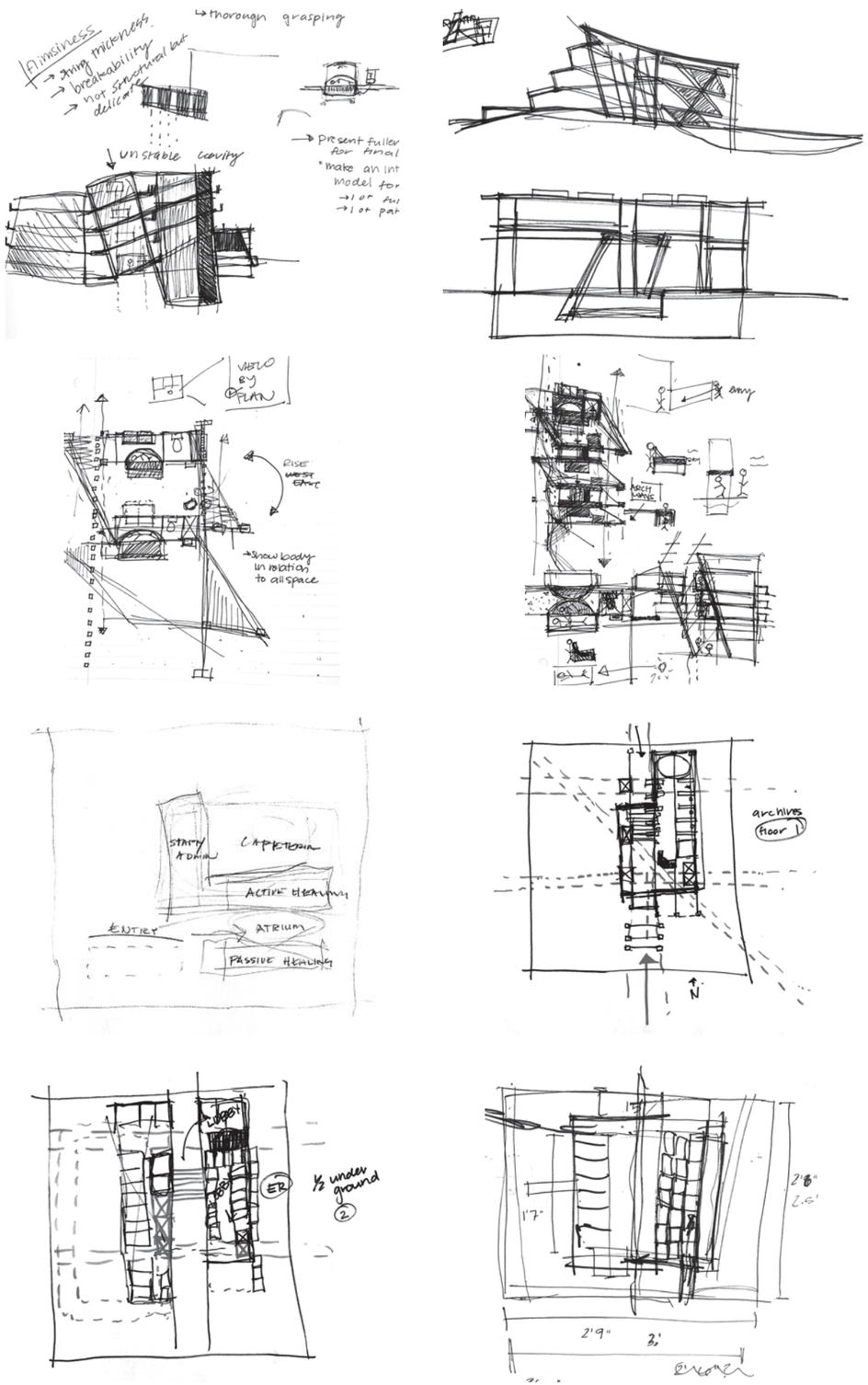


Figure 9.12

Process Sketches

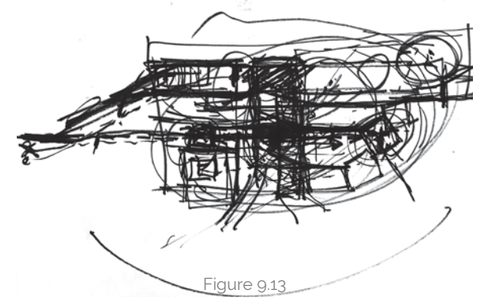


Figure 9.13

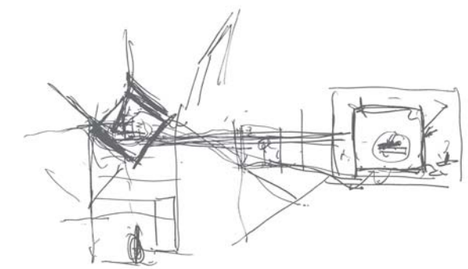


Figure 9.14

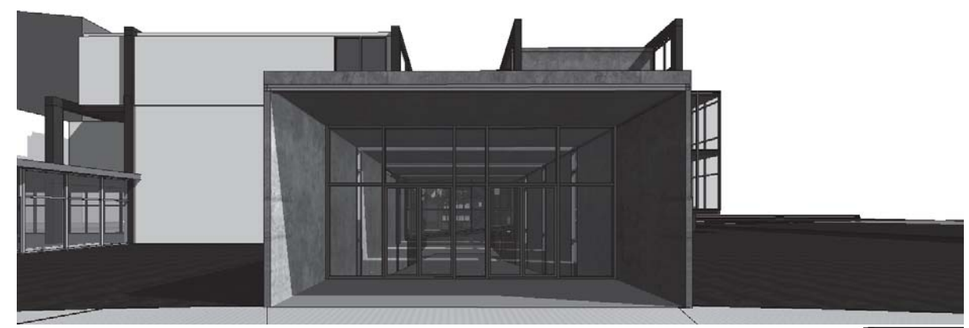


Figure 9.15

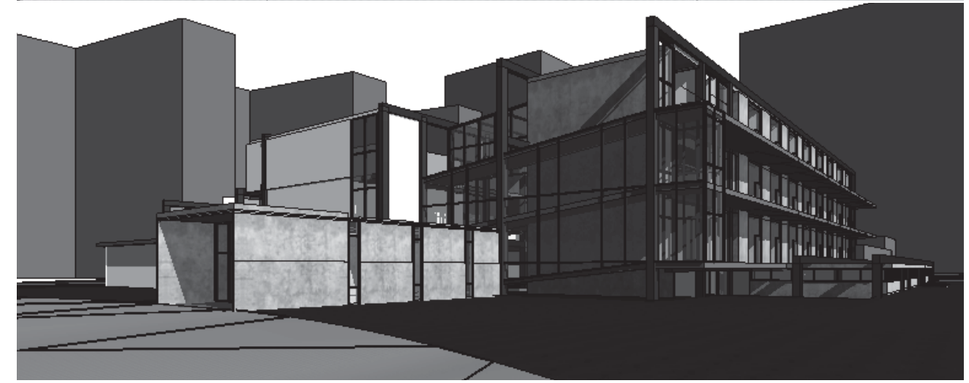


Figure 9.16

The following images represent the long process of combining theory and architecture into a solution to solve the many questions within the thesis statement. The preliminary drawings express the change and process of finding the architectural answers along the way.

Presentation

A documentation of the final thesis presentation.

Chron.ic Dis.ease:

n. (kron'ik di-zēz')

Disease of long duration. Cannot be cured by medication, nor disappear.

Figure 10.0

For a patient who is suffering, it is a matter of dysfunction, a condition of being excluded from the social world in which one actively lives in. Chronic Disease represents the most extreme case of illness and suffering simply because it cannot be 'taken away.' Those diagnosed with Irritable Bowel Disease experience flare-ups that result in an overall lack of control and a reoccurring cycle of dysfunction.

Figure 10.1

Crohn's Disease and Ulcerative Colitis, the two most common types of Irritable Bowel Disease, have remained primarily invisible from society, forcing its 5 million patients to fluctuate between hospitals and clinics in search of a facility more attuned to the care they need.

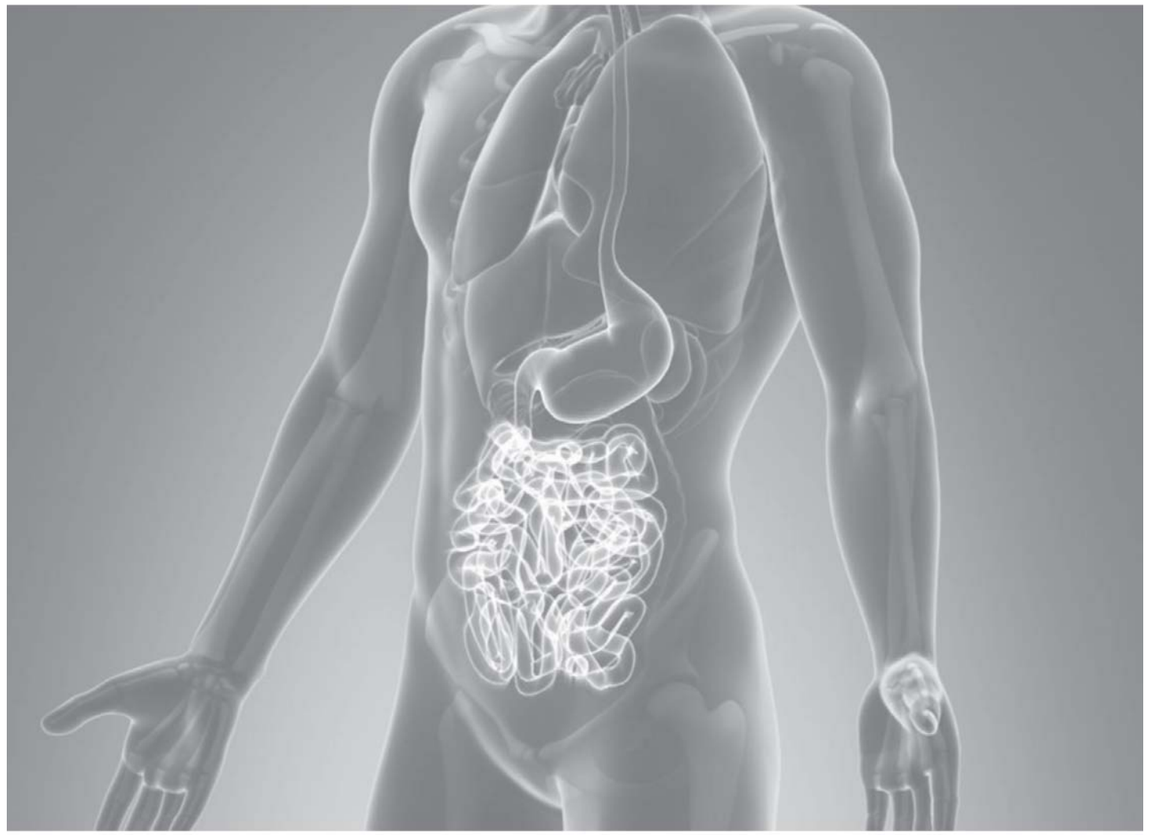


Figure 10.2

These conditions go by the phrase 'invisible diseases' because although there are no visible reactions, the body is attacking itself from the inside causing patients daily emotional, mental, and physical pain. Symptoms result in a loss of normalcy and a consistent and overwhelming need to seek medical care on a yearly basis.

IBD PATIENTS IN THE WORLD

5,000,000

IBD PATIENTS IN AMERICA

1,600,000

IBD PATIENTS IN IL & IN

60,000

REGISTERED HOSPITALS IN AMERICA

5,627

HOSPITALS IN CHICAGO

36

IBD PROGRAMS AT CHICAGO HOSPITALS

4

IBD TREATMENT CENTERS IN THE WORLD

0

Figure 10.3

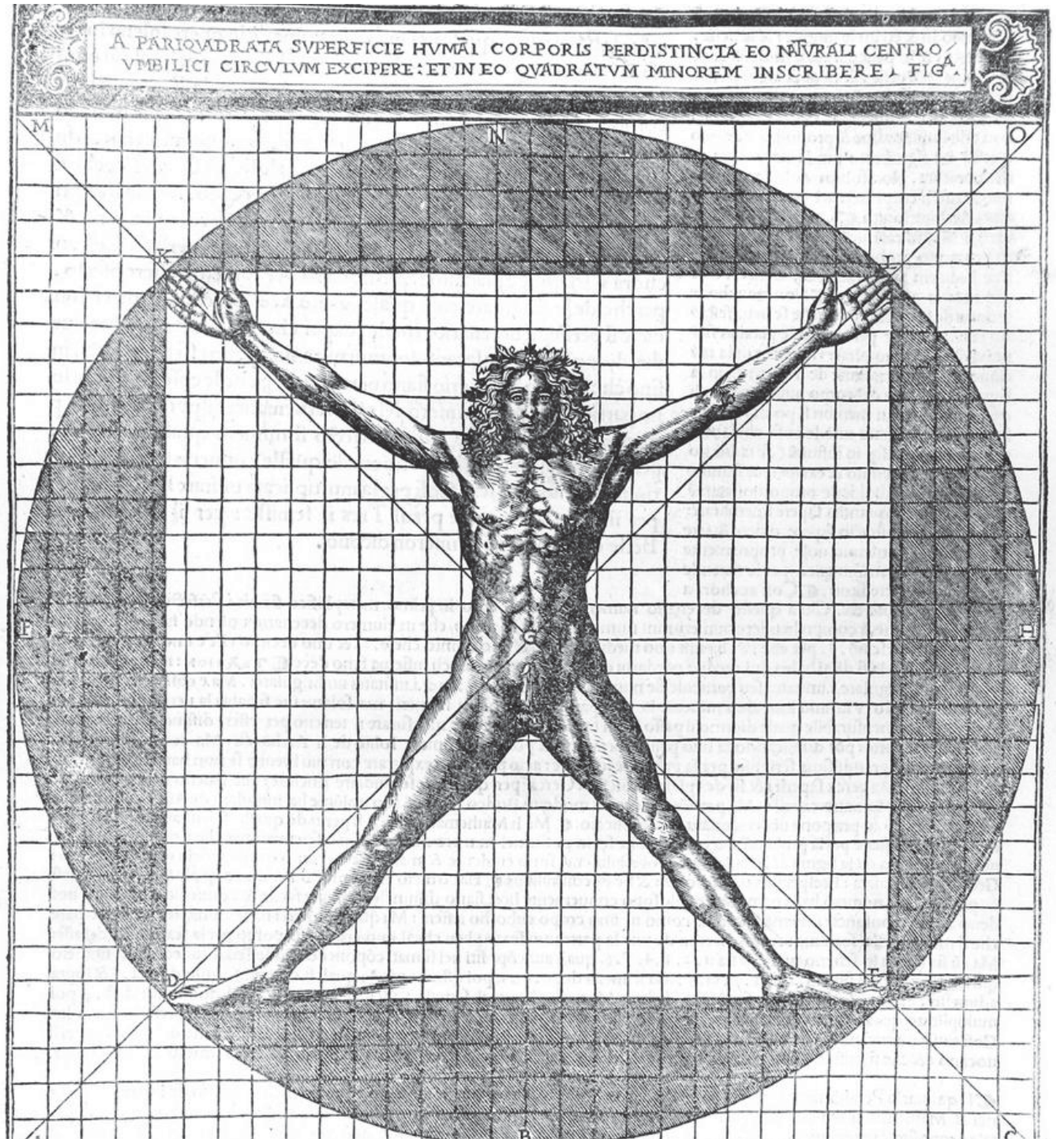


Figure 10.4

These patients need a multidisciplinary approach taking lessons from the Greek theater and the catharsis evoked by tragedies. The Edgewater IBD Treatment Center will evoke a deeply corporal experience attuning inner and outer worlds in the patient's progression towards health.

Figure 10.5

The center will place the body and its emotions back into the environments that are designed for them and treat the individual patient's path back to healing because for IBD patients the fight is in knowing that, "I have Crohn's disease but it doesn't have me."

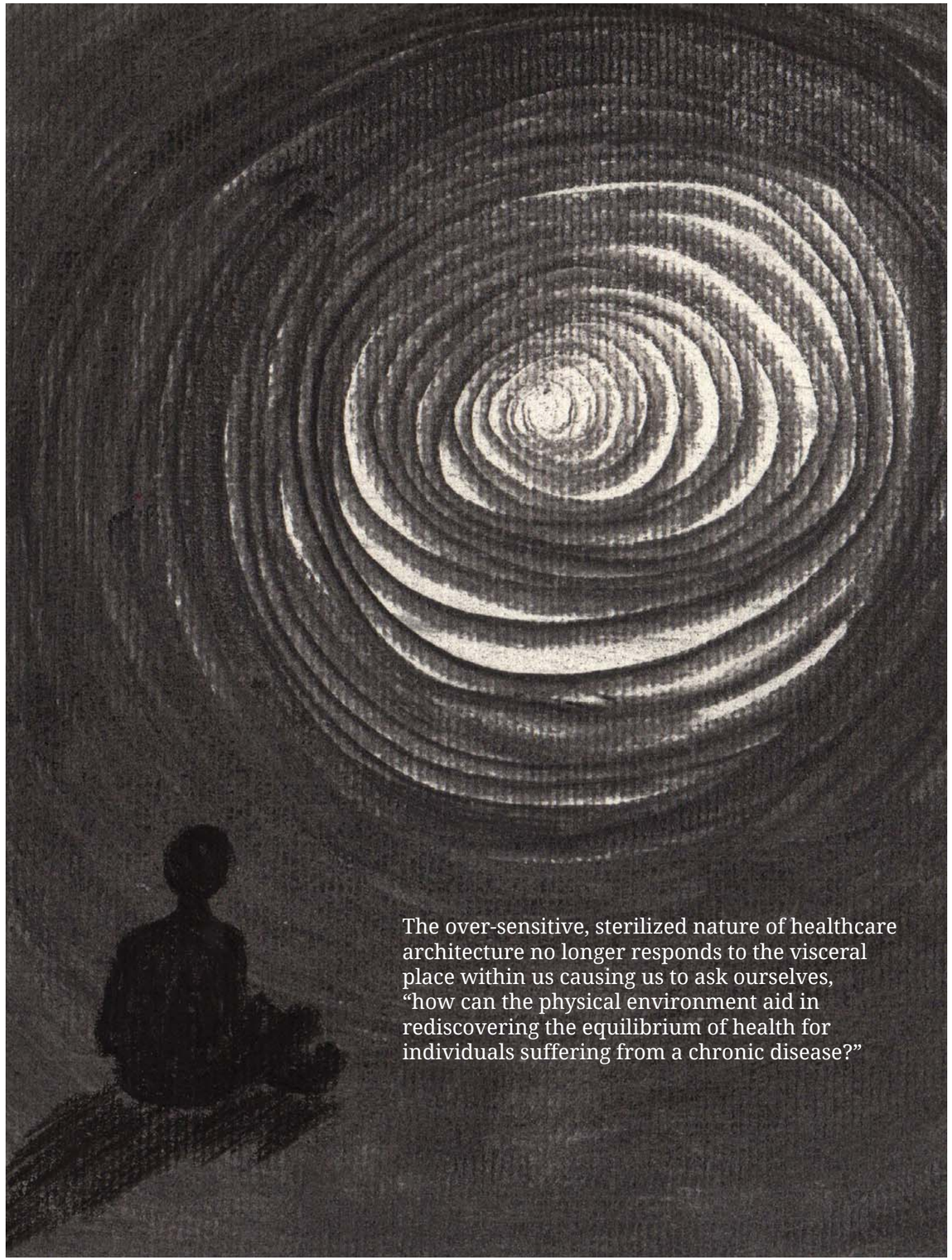


Figure 10.6

Figure 10.7

Modern science is held at such a high esteem that our personal experiences of the world hold little value. By treating everything as an “object-in-general, the sciences of today are reduced to a formula-like-operation of: test, operate, and transform.

Figure 10.8

Classical science differed by using the world as its foundation for operation. The diversion from classical to modern science, and its environment, has created one of the problems that faces us today. It is a universal need for us to concern ourselves with health for it affects everyone and our perceptions of the world we exist in.

Figure 10.9

Health is a fundamental piece of each man. It is innate and cannot simply be produced. Our responsibility as humans is to ensure our personal decisions, in regards to our well-being, are not taken over by the technology of science.

As Gadamer, a philosopher on what it means to heal as a patient and a provider, describes the remarkable process of healing by stating, “The life of the body always seems to me to be something which is experienced as a constant movement between the loss of equilibrium and the search for a new point of stability. What a remarkable thing it is that a slight pitch in balance counts as nothing, that we can tilt almost until falling and then swing back into equilibrium.”

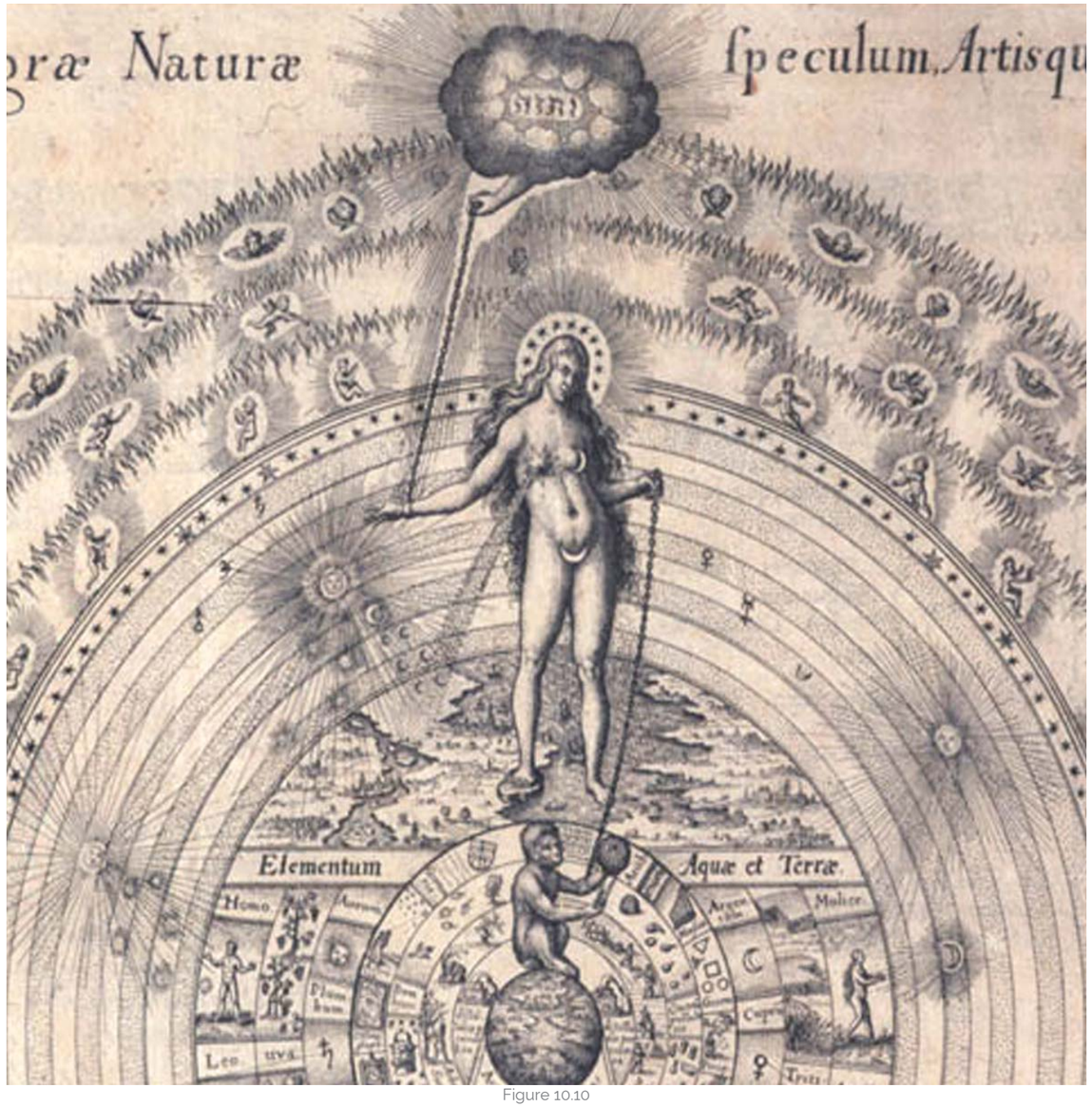


Figure 10.10

Plato describes disease, in Timeaus, as a condition of disproportionate compositions of the soul to the body. Only by compensating for the lack of a part of the soul or body can one become good or beautiful. In this, it is impossible treat the body “without at the same time treating the soul.” His creation of the Demiurge, was an example of how form and health have been intertwined since the beginning.

Figure 10.11

Plato introduces the a term to understand human affairs as the chora. More simply, it is the stuff of the world, the humans and nature. The chora reveals the limits and purpose of human life as a place of transition in the same way the Greek theater does to the spectator.

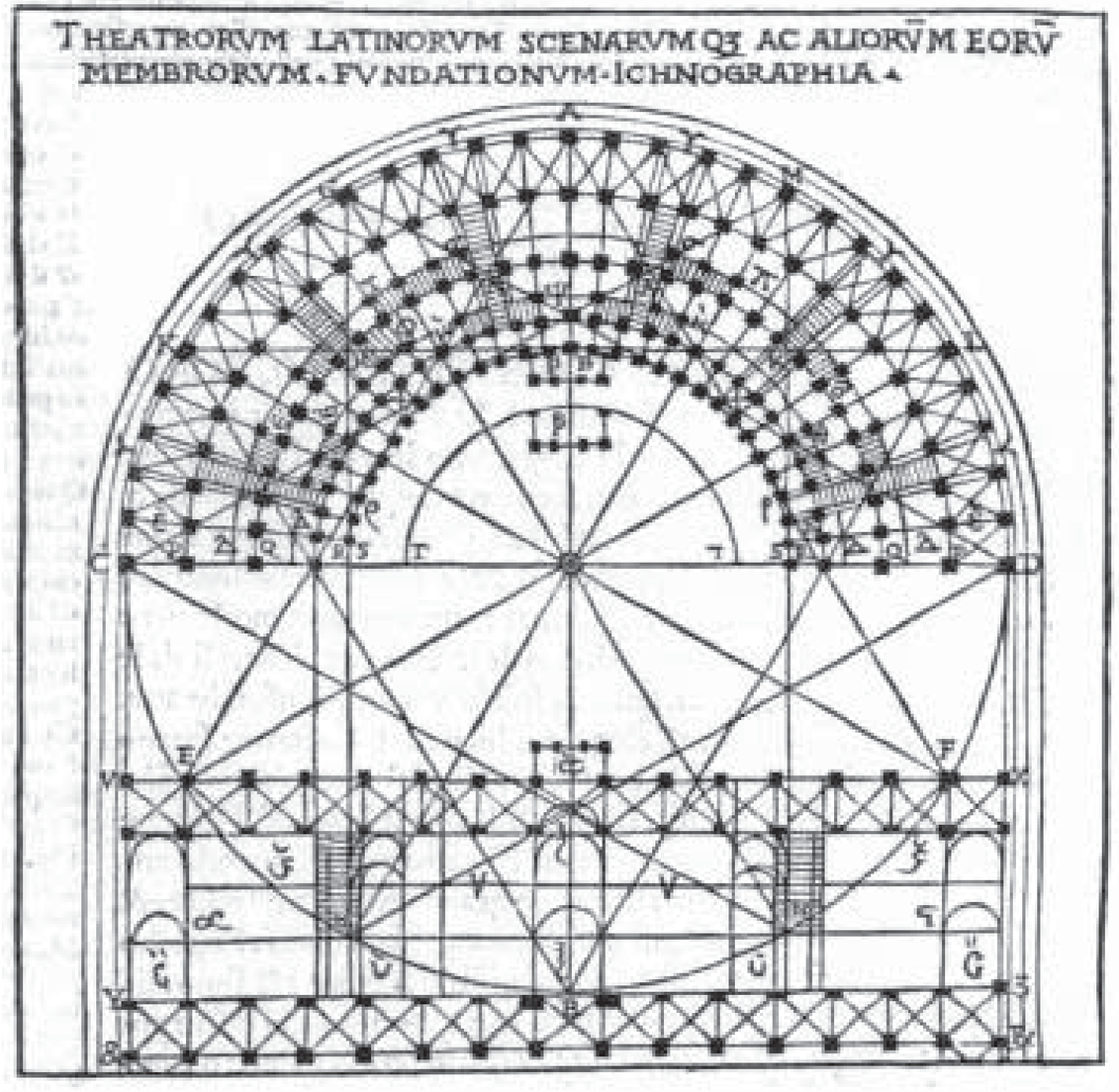


Figure 10.12

For the theater, Chora symbolized a place of layered significance for its inhabitants. The combination of poetry, music, and dance in an architectural frame resulted in a cathartic effect orchestrated by the members of the chorus. Through its spell bounding performance, blowing winds, human voices, and circular stone seats, the design of the theater supplied a harmony amongst its audience as they experience the epiphany of belonging and wholeness at a distance.

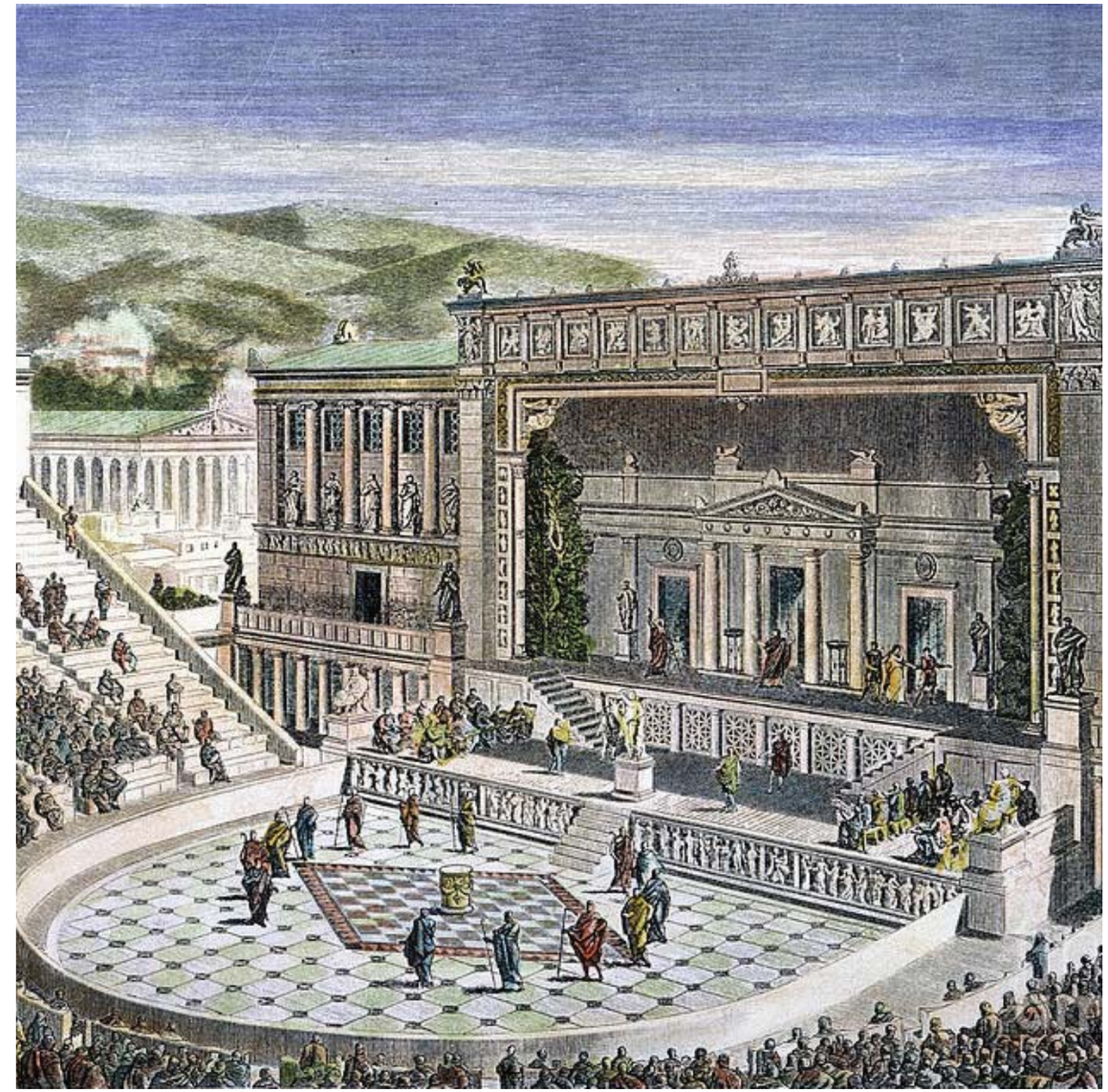


Figure 10.13

It is here, in the chora and the chorus, that the audience is placed in-between ignorance and knowledge, time and timelessness, imperfection and perfection, hope and fulfillment and life and death. In a time when sickness was understood as mental illness, the tragedies purified, centered and appeased spectators.

Figure 10.14

In dramas like The Trojan Women, the layers of the present and the dream-like situations and the mood of the atmosphere drew meaning beyond its materials and use to leave a visceral impression on the audience through their commonality within their own lives. The chora was not timeless and indestructible but instead incredibly vulnerable similarly to how a chronically ill patient feels about their body. A treatment center can offer up to the patients what the catharsis of the theater did for the audience by instilling a sense of hope in a dream-like, disabling moment.

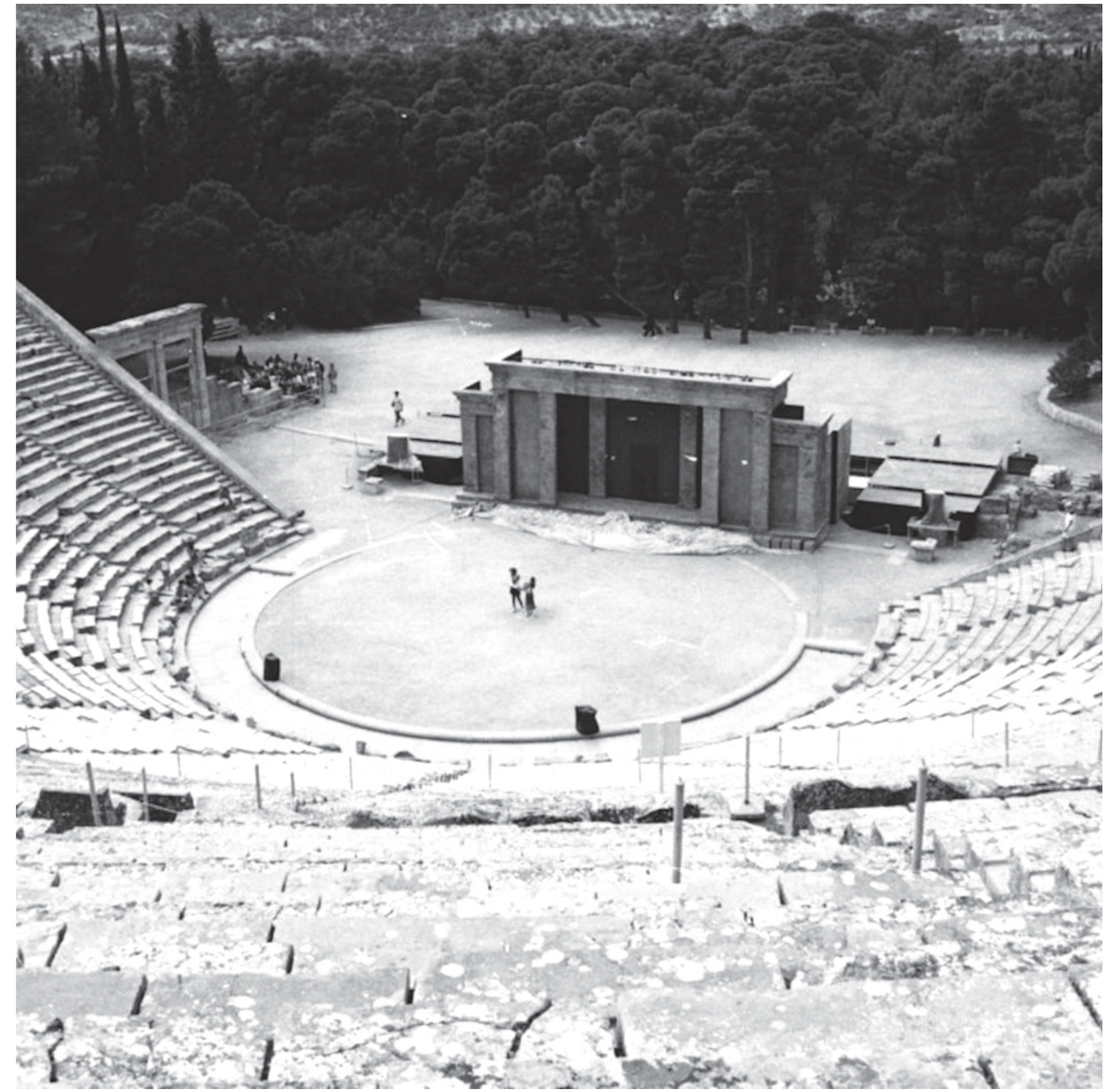


Figure 10.15

The weaving of temporality and spatiality created in the Greek theater was one of the first embodiments of human space and healthy environments. The chorus and the actors made possible the reflective understanding of the plot and the catharsis that takes hold of the spectators, enabling them to recover their spiritual wholeness and find their bearings amid the disorientating events of everyday life. Ultimately, the theater shared the importance of a healthy site within the folds of everyday life for its spectators which can be transmitted to today's patients.

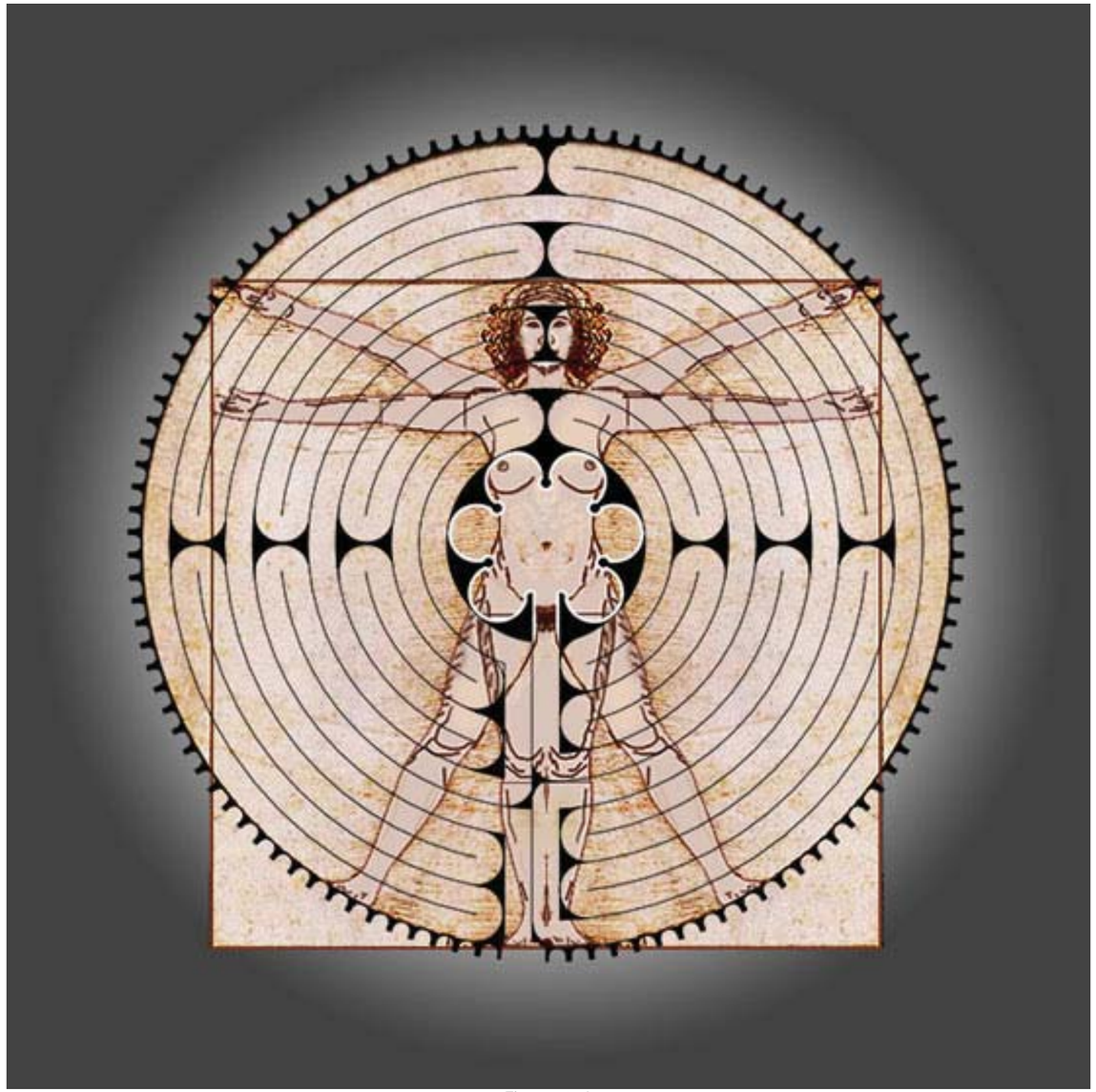


Figure 10.16

The figure of the labyrinth, a foundation of the theatre, made explicit the co-presence of path and space. It was a symbol of human life with one entry and one center and achieves a presence of order in apparent disorder. As a result, it became a privileged form of cities and architecture in general.

The ideals of the Greeks transmitted into the circular temple of Asclepius which is a well-known place of healing. The labyrinthine center of the temple that features three sacred serpents is an analogy for medicine enabling order "to appear or, if lacking of, to be restored."

Figure 10.17

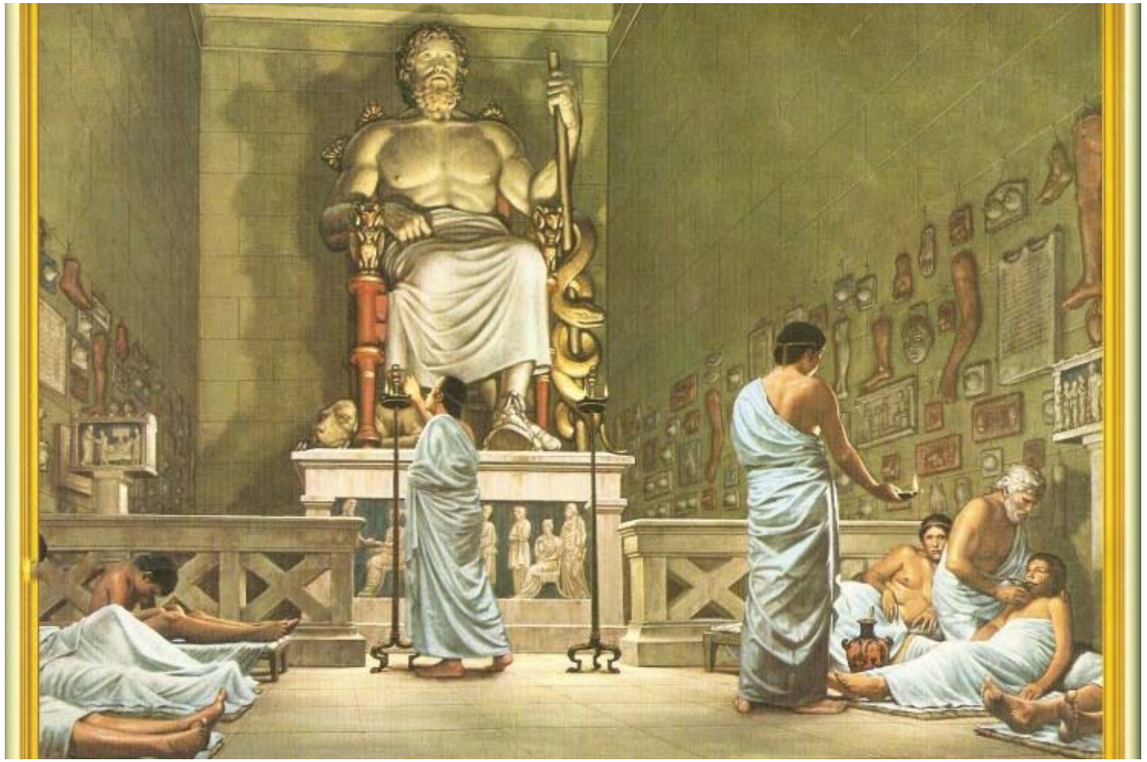


Figure 10.18

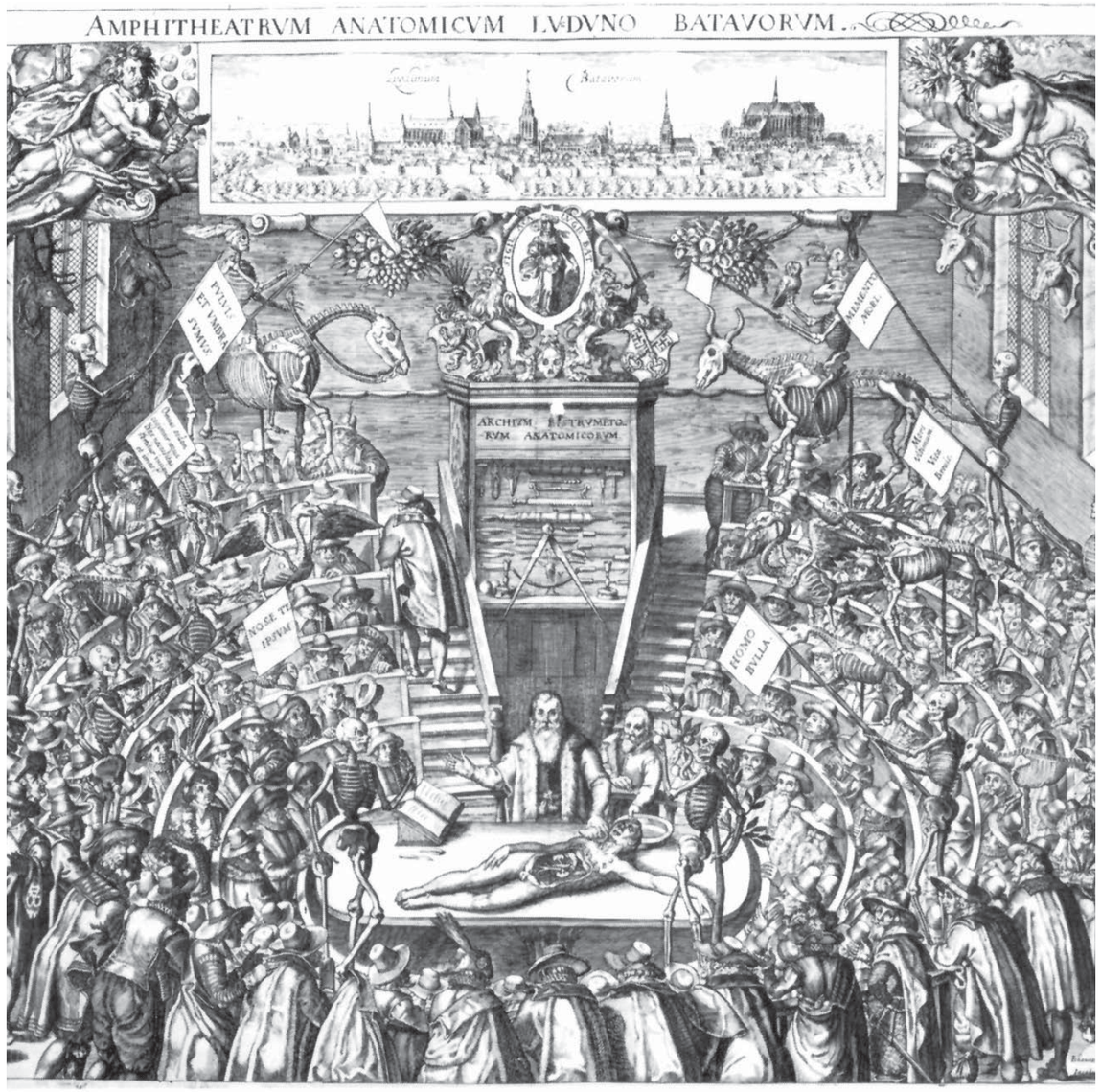


Figure 10.19

Modern science threatens medical action by placing its emphasis on replacing the natural with the artificial and not the restoration of an equilibrium. This makes the distance between human and machine extremely visible, thus eliminating sensitivity towards the patient and their sensual experiences.

Within the walls of the city, students could peer down to the surreptitiously obtained human corpse readied for an anatomy lesson placed on a slab amidst the amphitheater. This design led to the detailed discovery of the interior of the body and simultaneously changed the focus of modern medicine on a solid basis of exploration and observation and away from the visceral feelings of the patient.

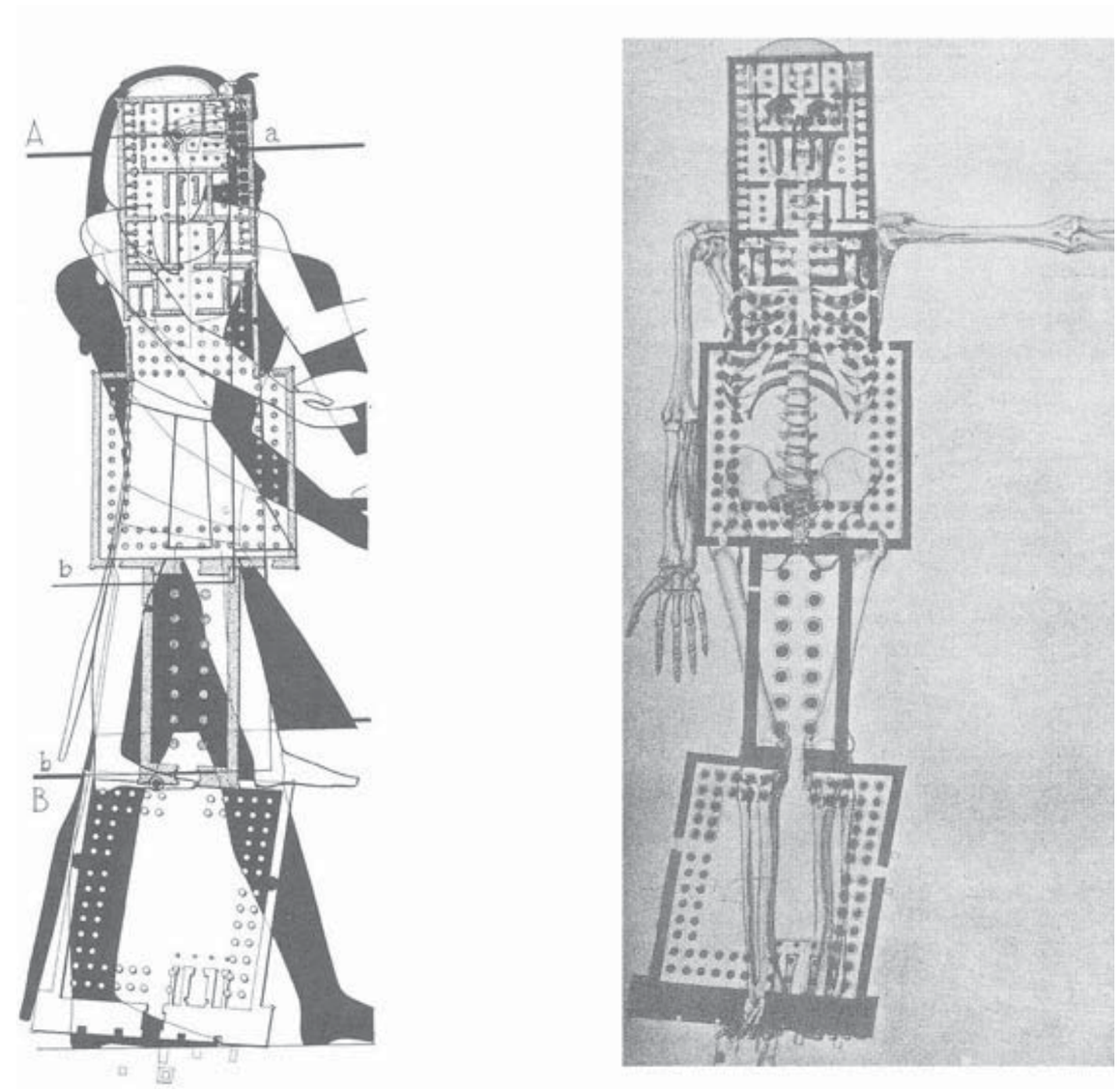


Figure 10.20

Buildings became aesthetic objects during the current digital and materialist age judged for their visual characteristics, but is it important to understand that atmosphere has historically been a central element of “good health.” By enhancing the mood of the environment, we can “find ourselves in the world.”

Figure 10.21

Healthcare architecture today lacks what the Greek theater achieved so successfully. By embodying modern technology and science, the physical environment gave way to the history of sterilization and sophisticated measuring instruments which neglect the spiritual wholeness of those being treated. Mankind has always sought out answers and explanations, and unfortunately, they have leaned on the use of modern science to attain a higher understanding instead of the foundation artists have laid before them.

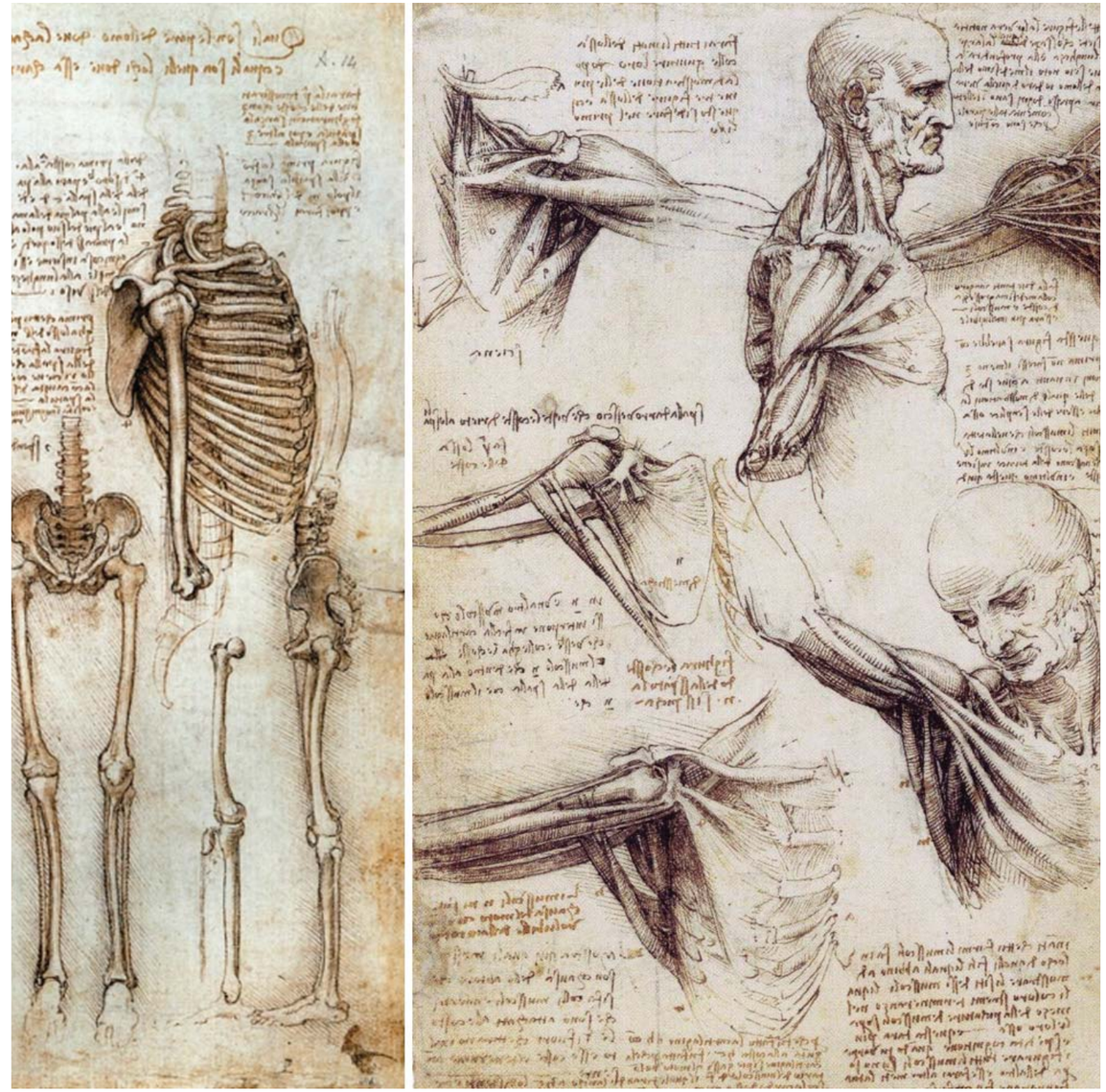


Figure 10.22

Treatment, or "treating people and handling them with care," pulls apart the routine by listening and being sensitive to the place within us. It becomes crucial, especially, for treating the chronically ill. Chronic illness represents a special case of importance in the crisis of modern medicine by showing the fate of our development. It is a limitation of the technical medical skills and it reminds us that the patient is a person and not a case. Treating diseases as though they are eliminable is also apparent in the de-humanized environments created for them.

Figure 10.23

Owen Barfield wrote that repeatedly interpreting the same type of poetry causes an over-saturation of our aesthetic imagination and thus results in a loss of our appreciation. When pleasure is completely lost, it is time for an overhaul of change. The traditional oppressive approach to health care design placed emphasis on functional efficiency and the pathogenic conception of disease which has often produced facilities with starkly, institutional, and stressful environments. It is time for an overhaul in the healthcare architecture by allowing the dualities of interior and exterior, public and private, and comfort and discomfort to aid in patients reaching equilibrium with a conducive environment; especially for the chronically ill.

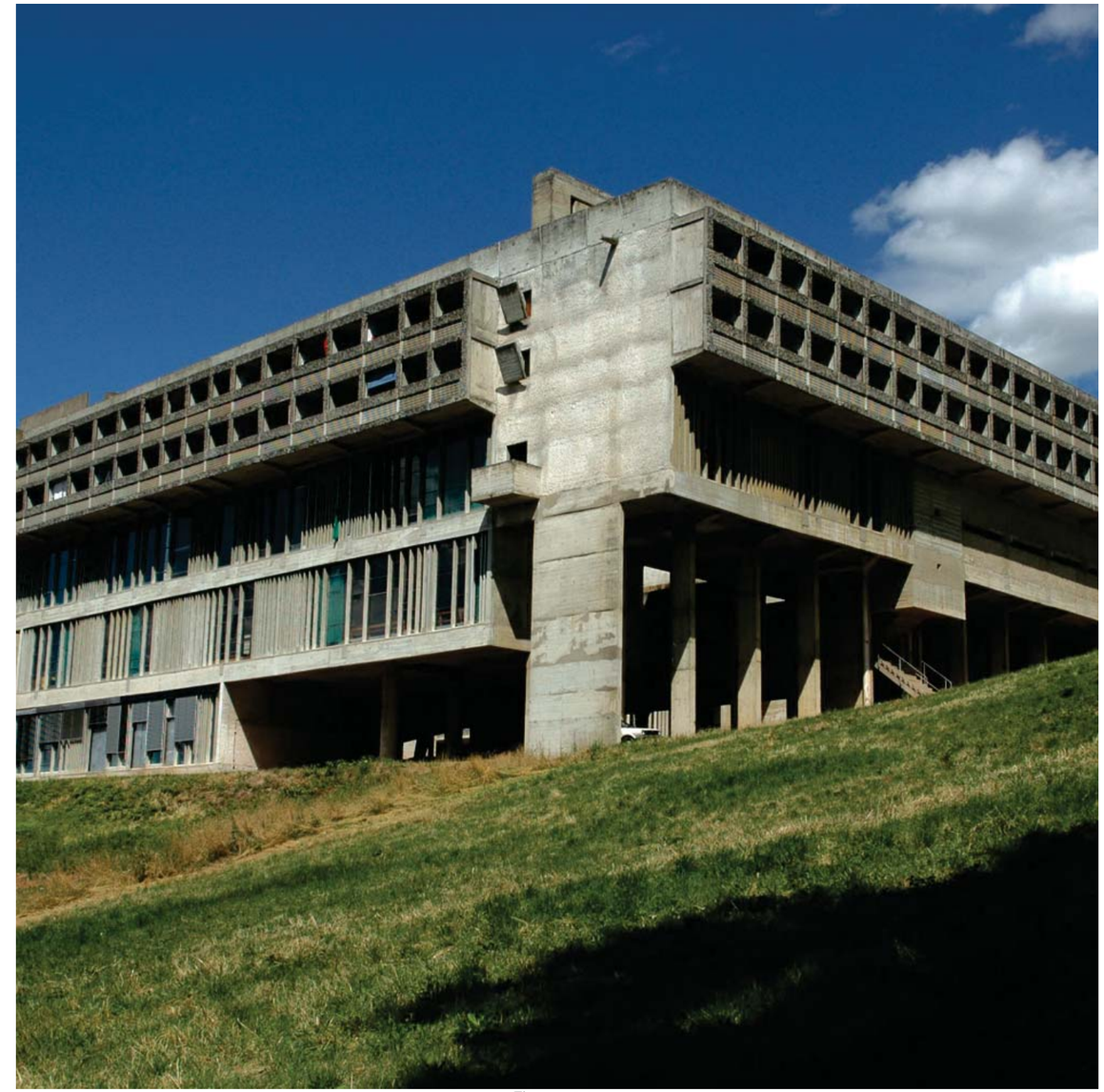


Figure 10.24

Le Corbusier's La Tourette proposes an order in the making through its layers of both revealing and concealing. It's labyrinth of spaces calls one in and circulates them downward to the monastery. The program and plan has all the pieces and parts to be recognizable as a monastery but is completely transformed allowing us to see more clearly what has been present before us and cause the architecture to truly be seen. The 100 modest sleeping rooms respect solitude and integrity of the individual. These cell-like spaces add to the musical harmony of the structure through their rhythmic repetition of carefully dimensioned space.

Figure 10.25

Daniel Libeskind's Garden of Exile, located at the Jewish Museum of Berlin, represents the experience of European Jewish Exiles driven from their homes during World War II. The garden's 12 degree, angled columns are disorientating but as one looks up into the sky through the olive bushes, one feels a sense of release and hope. It translates human experience into an architectural composition of 49 columns in a 7 x 7 square.

Figure 10.26

Artist Do-Ho Suh explores the meaning of home and personal space in his 1:1 scale installation of Home Within Home. The two homes, an apartment and childhood house, are assembled with the use of translucent fabric that commands our attention to focus on the "invisible memory" of our daily experiences at home. The exhibit allows the inside and outside views to pass through the translucent fabric encouraging the visitors to discover the 'weightless memories' of their own 'spaces'. This entanglement of inner and outer, public and private, East and West, and the past and present envelop the visitors to create a fully-exposed surreal space.

Figure 10.27

The artefact exhibits the nature of art through an embodiment of our total senses versus the sterile and dehumanized nature of common hospitals. The confrontation of the body transcends the human to the common day action of going to sleep or waking up in the morning. It evokes a feeling of both death and awakening. This duality is traced back to our own birth, a place in which we constantly wish to return to due to its stimulus-free and warm nature.

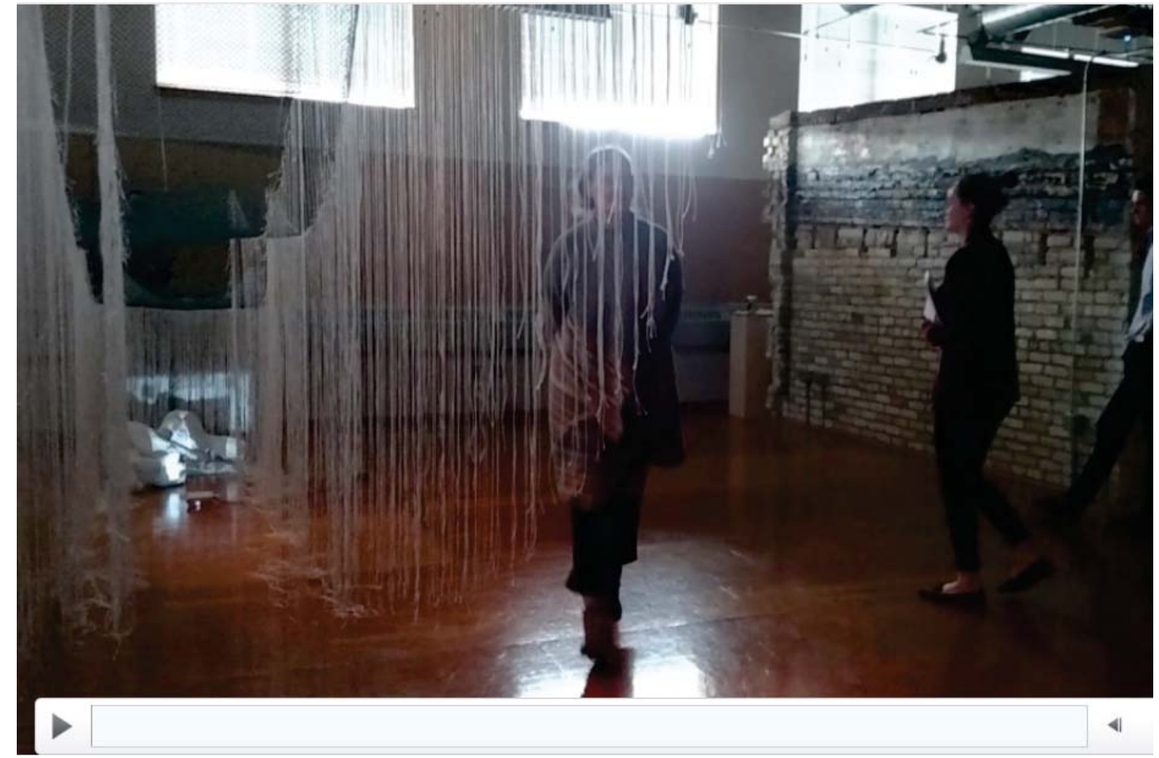


Figure 10.28

Bachelard describes the essence of home stating that, “the chief benefit of the house is that it shelters daydreaming, the house protects the dreamer, the house allows one to dream in peace.” When a patient is ill, the treatment facility becomes their temporary home, a place in which the dreamer needs protection within their return to normal, independent schedules and lifestyles. The moods of our homes depict where we are most at ease in the external environment. The meandering, descending form of the passageway invites visitors in such that one must face sickness and make an active, individual choice on their limitations. Each curve of the structure pulls your body in towards its splanchna into the drama of the piece’s performance. The treatment center will no longer focus on intellect over the concept of home being “the inner shell of man”. Treatment will allow patients to remain part of the world amidst the ‘falling out of things’ to set its own stage for recovery. It will place the visceral language of the patient into the external environment to find clarity in life’s most disabling time.

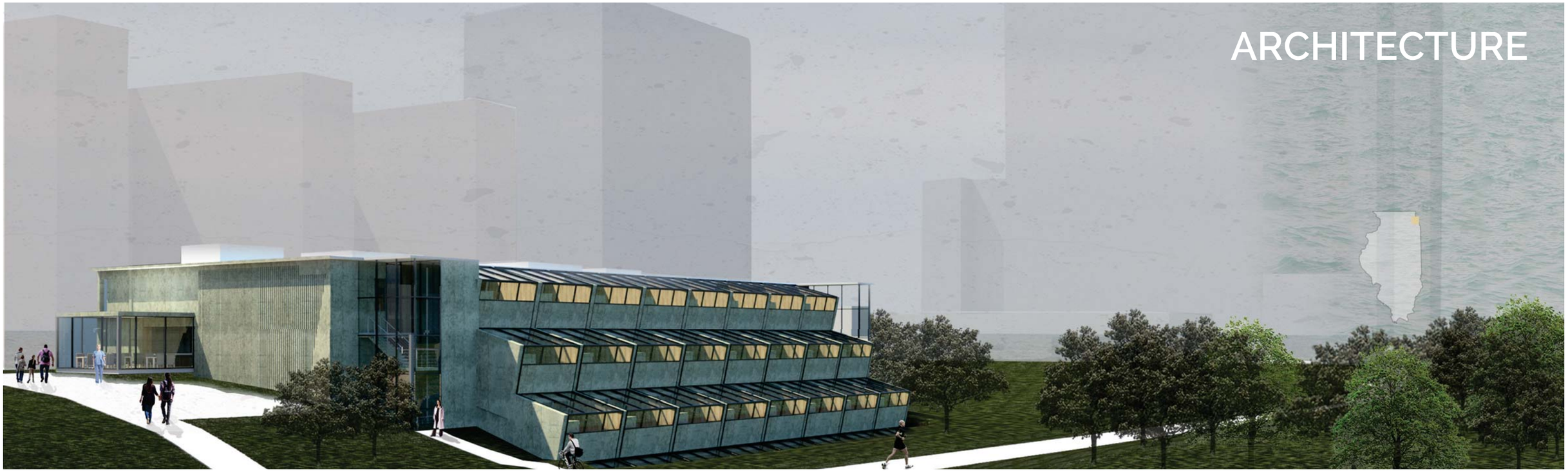


Figure 11.0, 11.1

SECTION FACING SOUTH

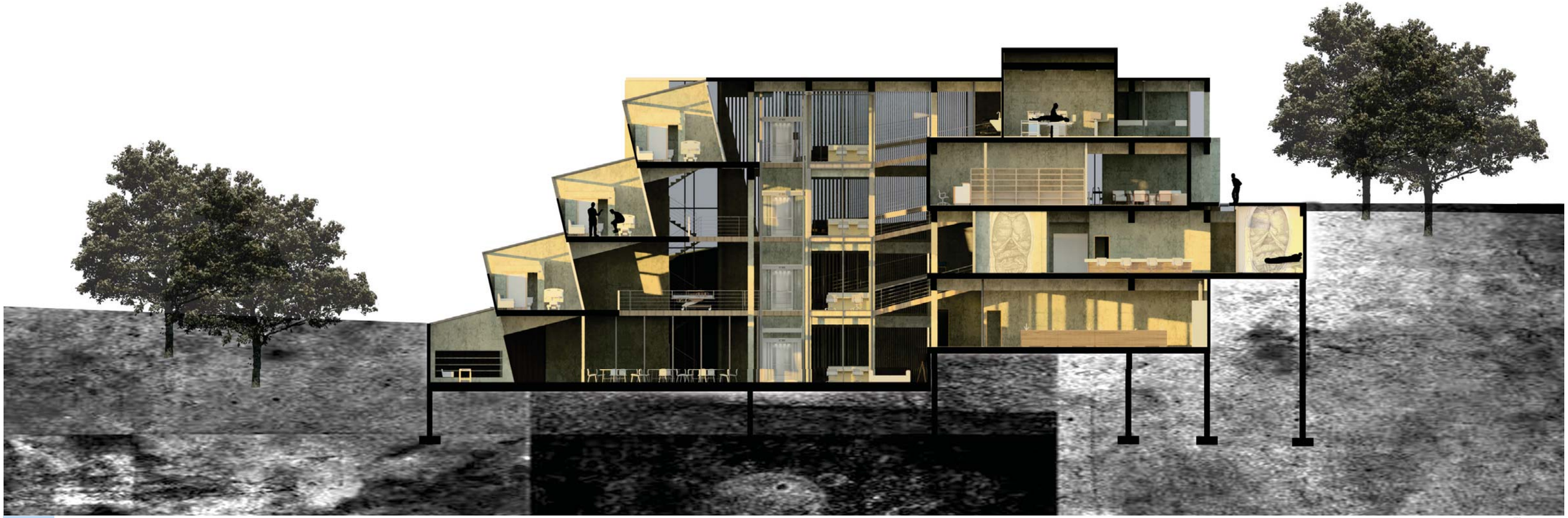
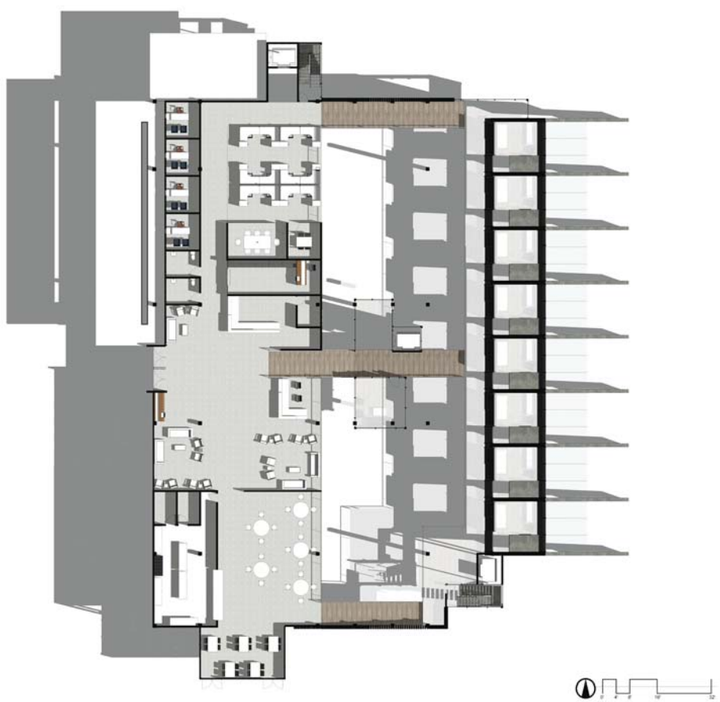


Figure 11.2

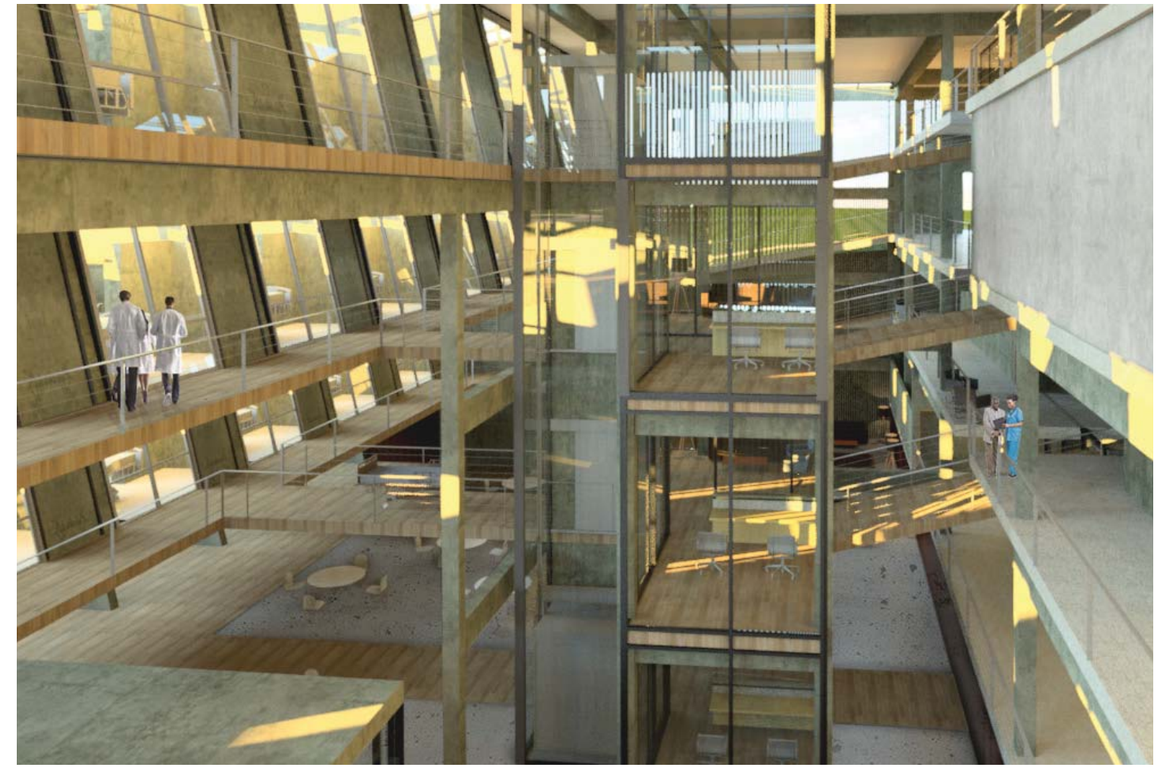


ENTRY

Clinical Level 3

-Reception
-Lobby
-Staff Support
-Cafeteria
-Lounge

Figure 11.3, 11.4



Circulation

Circulation Chamber Diagram

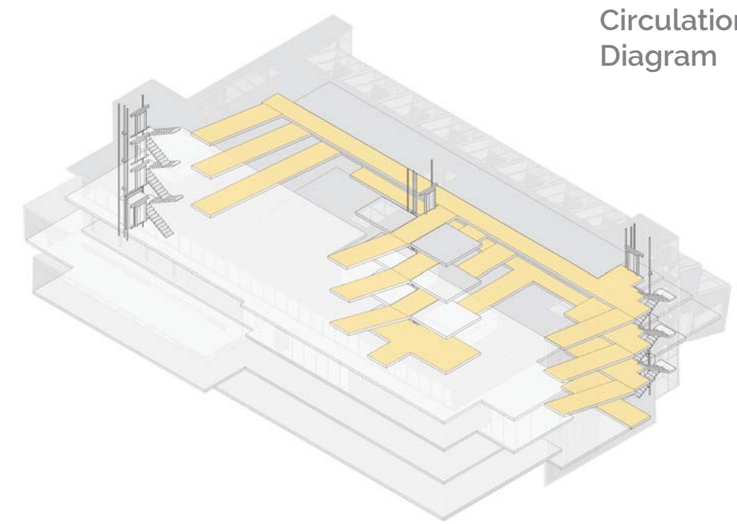
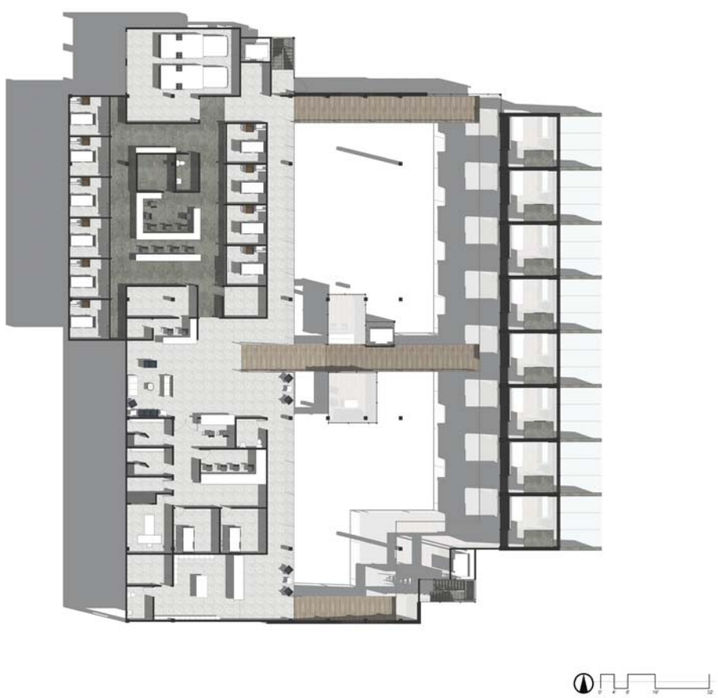


Figure 11.5, 11.6

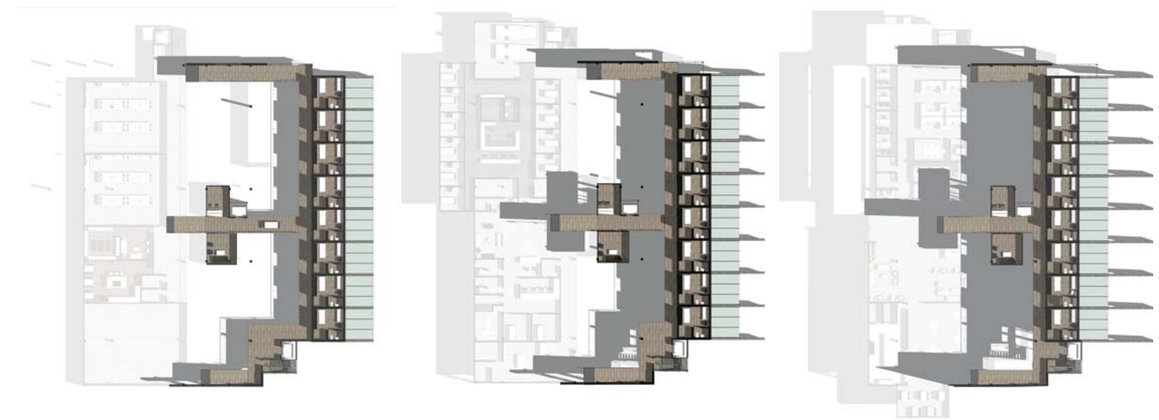


ER

Clinical Level 2

-Emergency Department
-Waiting Area
-Ambulance Bay
-Diagnostics
-Pharmacy

Figure 11.7, 11.8

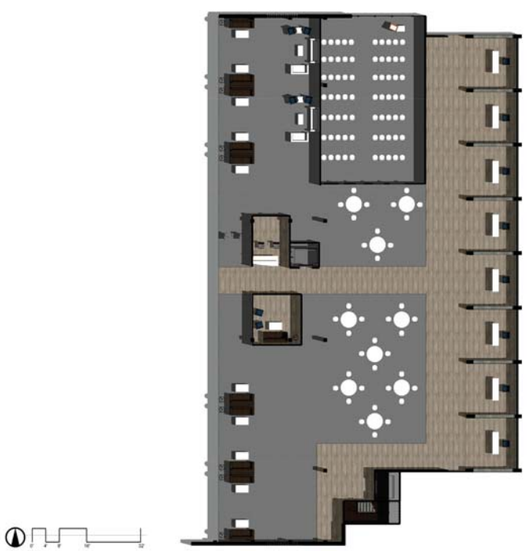


Patient Rooms

Patient Levels 2-4

-24 Patient Rooms
-Floor Nursing Stations
-Floor Family Rooms

Figure 11.9, 11.10, 11.11, 11.12

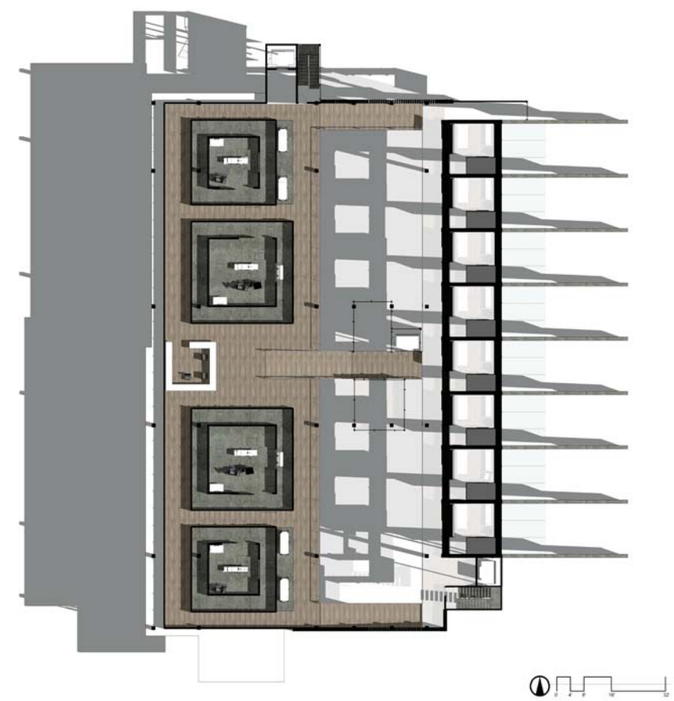


ARCHIVES

Patient Level 1

-Archive Shelves
-Lounge Area
-Large Group Meeting Room
-Private Sitting Areas

Figure 11.13, 11.14

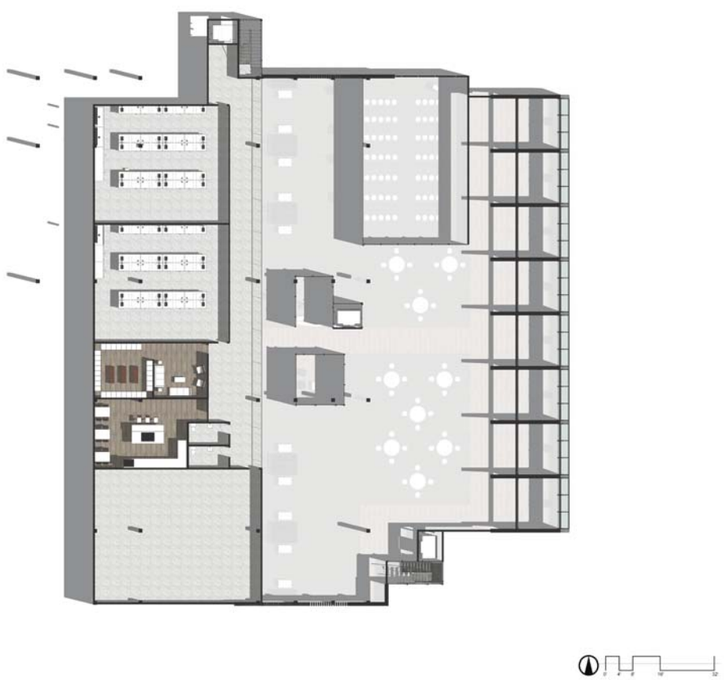


OR

Clinical Level 4

-2 Operating Rooms
-2 Procedure Rooms
-Surgery Reception
-Surgery Waiting Area

Figure 11.15, 11.16



Lab

Clinical Level 1

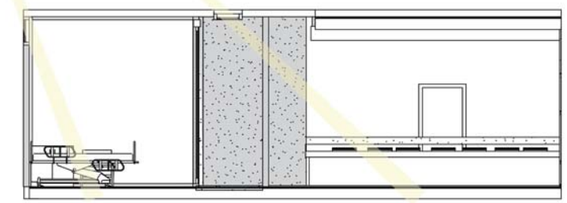
-Lab
-Research Lab
-Staff Lockers
-Staff Break Room
-Mechanical

Figure 11.17, 11.18

How can the Physical Environment Aid in Discovering the Equilibrium of Health for Those Suffering from Chronic Illness?

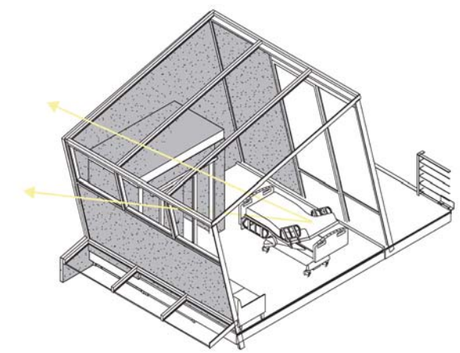
1. Natural Light

Natural Light is an element commonly left out of typical hospital design, especially in circulation areas, procedure areas, and the emergency department. However, natural light allows us to feel closer to the exterior world and is closely tied to healing. The design places light back into the areas neglected.



2. Intertwining Interior & Exterior

The architecture studies our relationship between our innards and the external environment around us by designing in the visceral. For instance, the building is submerged underground allowing one to feel embraced by both the earth and the sky as a way to heal both internally and externally. The patient room places the human body in-between.



3. Human Scale

The building sits humbly in the ground surrounded by the large residential high-rises of Chicago. Scale helps individuals feel more at home and comforted within the healing process.

4. Exposing Views to Interconnect Patients & Healers

The treatment center aims to bridge the gap between the over-sensitized nature of healthcare. Patients and healers are able to see through to what the others are doing in order to gain an understanding of what is to come.

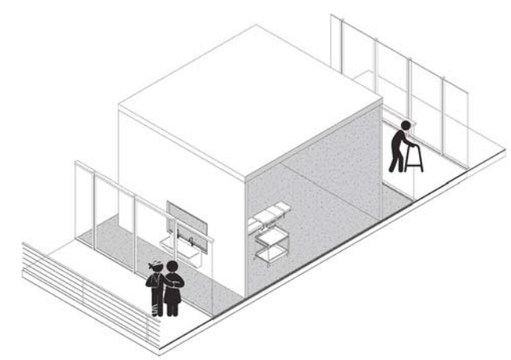


Figure 11.19, 11.20, 11.21, 11.22

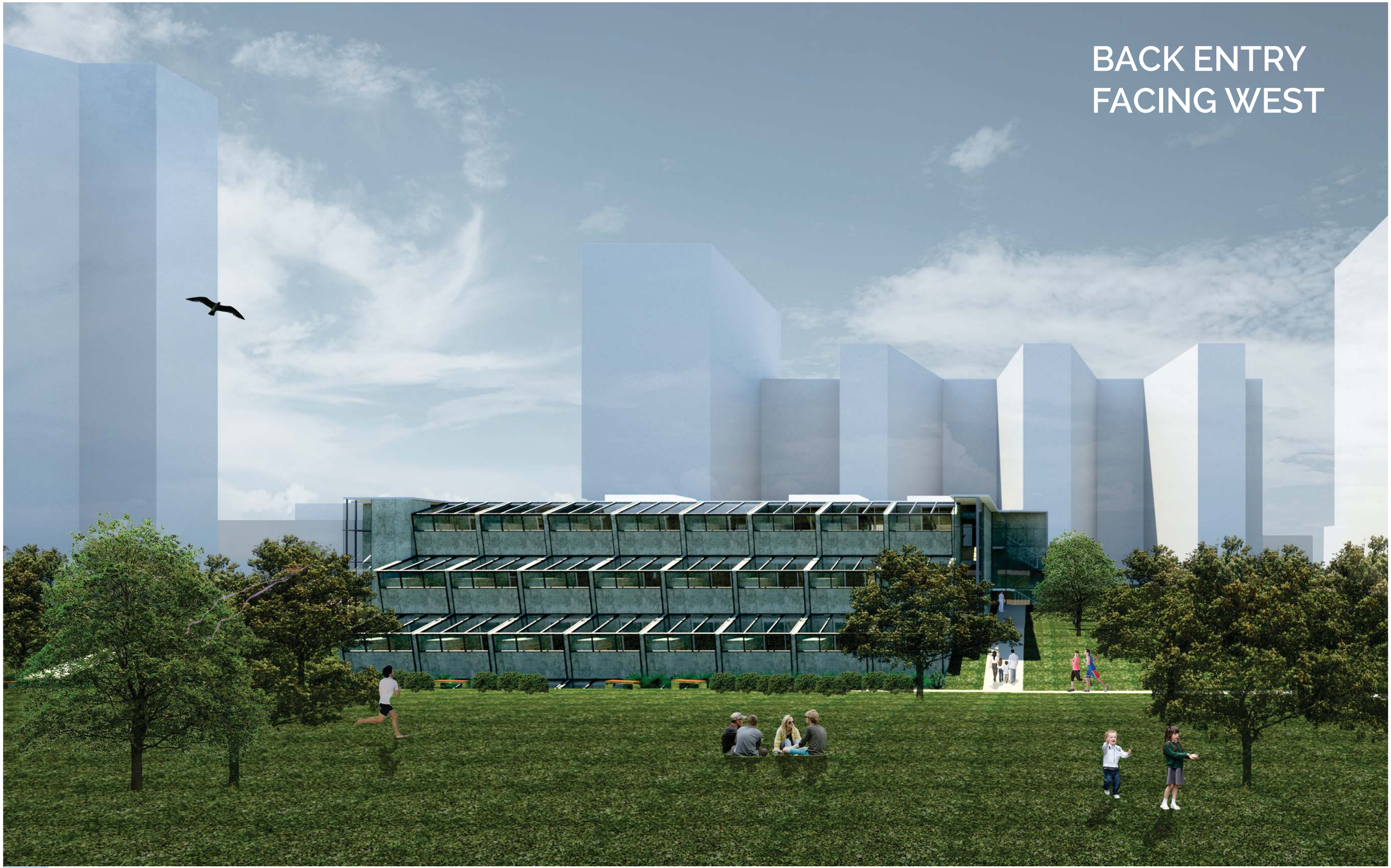


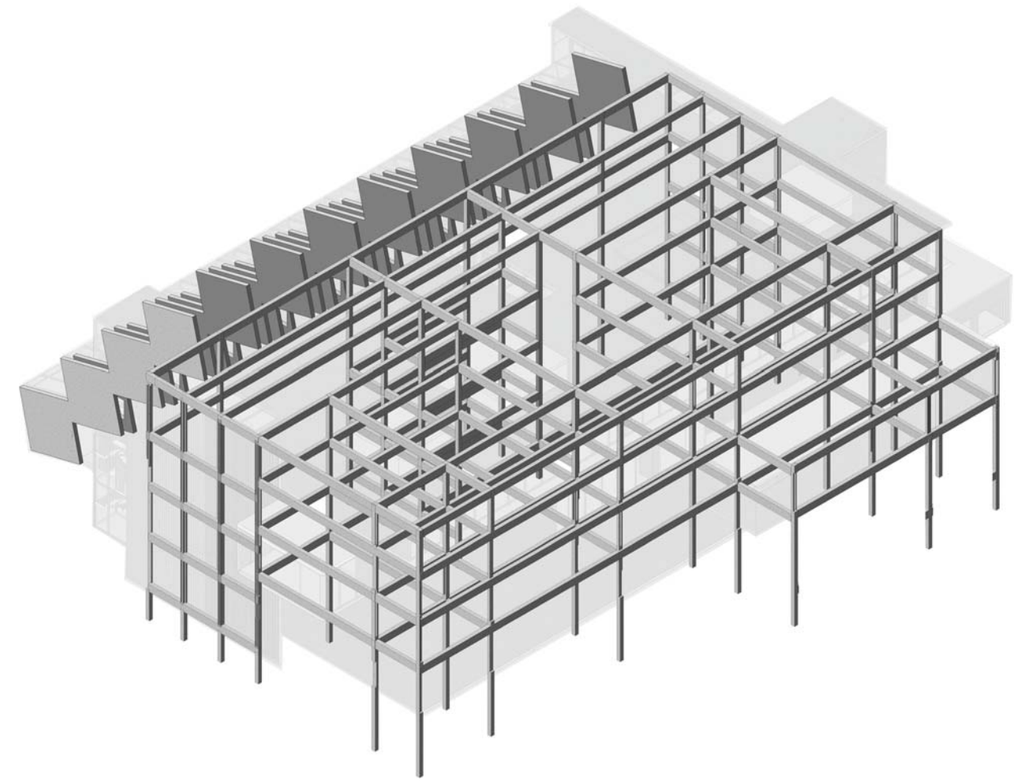
Figure 11.23

Figure 11.24

Figure 11.25

Figure 11.26

Figure 11.27



Structure

Structural Diagram

Figure 11.28

Figure 11.29

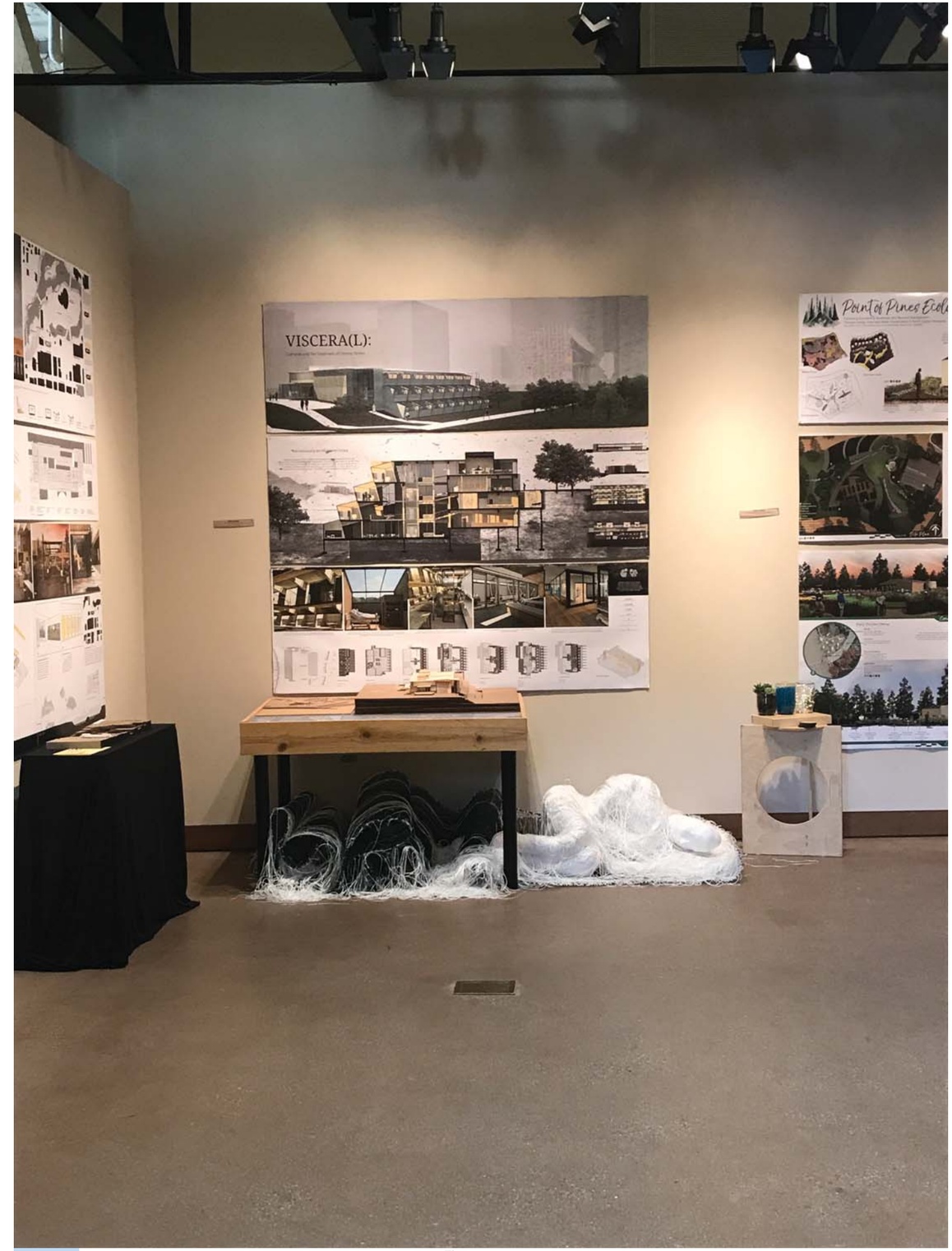


Figure 11.30

PERFORMANCE ANALYSIS

Site/ Context

The building addresses site and context concerns by taking the established building height of the area and contrasting it by going below ground versus up 15-20 stories. It addresses context by placing it just off the 15 miles of bike trails and orientating the building towards major streets as well as back entrances towards the path. Patient rooms are orientated towards the morning sun to the east and the main exit towards the west. By having the veils of light on the southern side, the natural light permeates the building at all times of the day giving it an abundance of light.

This representation is shown within the site plans, the diagram responding to human scale, and the overall composition of the building depicted in the model and perspectives. Another place this can be illustrated is the drop-off being located off of the major road access point as well as the ambulance bay. The ambulance bay is located just below ground level of the side walk to allow for quick and easy access for emergency situations as well. This are further shown in the floor plans.

Typological

The building addresses the typology by making sure the various departments and program features are utilized. The initial program did change to reflect more of a mood driven program throughout the entire building. There was accommodations for bathrooms, in-patient and out-patients needs. These spaces include: 24 in-patient rooms, 4 family rooms, 4 in-patient nurse stations, public and private bathrooms, 5 staff offices, open offices, 2 meeting rooms, lab, a research lab, diagnostics, the pharmacy, a large gathering room, and staff support spaces. With this program, an individual has the core programmatic needs to heal and treat patients.

Precedent Research

The precedent research supplied the necessary materials and studies to see a wide range of how multi-sensory experiences are achieved both in architecture and art. This is further seen and studied through the use of the artefact which set the path to many of the architectural final decisions that were made.

Each of the precedents allowed for a new understanding of the human body and how it occupies space. The three initial hospital studies brought light to the technical needs of the facility for both program and structure. They influenced the ground work the project started upon with the notion of what modern facilities are today. The historical precedents: Lady of Lourdes, the Epidaurus Theater, and Temple of Asceplius showed the value of a site and built environment in the spiritual feeling and catharsis of healing. For these places, it was not about the technological and medical skills but instead about a sense of place and health within the built environment.

These topics were further elaborated and explained in the architectural presentation. They influenced the overall design by the spiritual natural of the Edgewater IBD Treatment Facility. The disorientation, darkness of earth, labyrinth paths, and veiled light all create a mood that transports one past a notion of what a typical hospital should be.

The Key in Hand and Artefact were embodiments of inner feelings in the outer world through the lens of the artist. They push what is familiar into a new lens that makes an individual call attention to themselves. This is also a tool Le Corbusier uses in La Tourette and Libeskind uses in the Garden of Exile. This notion of realization is expressed in the patient rooms through their tilted and discomforting comfort and in the movements of the patients through the building from clinical to patient areas on a series of ramps.

Goals

This facility does provide a new way of viewing health care architecture that is much different than the white and stark facilities that are common even today in modern hospital design. The focus is very evident in the architecture especially in the patient rooms that tip towards the angle of the patient who is ill and re-orders them amongst the sunlight above them. The archives and labs as a foundation gives each patient a better understanding of what it is they are suffering from and pushing towards. By allowing a labyrinth of paths, the patient is able to make very independent choices on how they exit or enter the building and the time they need to go back into the normal world.

Appendix

A list of sources, references, personal identification, and previous design studio experience.

ACKNOWLEDGEMENTS

Special thanks to:

Susan Berens Emergency Room Nurse & Trauma Coordinator at St. Francis Regional Hospital and my mother for her guidance in programming needs and allocations of spaces as well as insight on staff perspectives throughout the year.

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The Enigma of Health - Hans-Georg Gadamer

Summary by Gretta Berens

Biography

The Enigma of Health consists of a series of essays that commonly were delivered as lectures to groups of physicians. The book, itself, was published in 1993 but essays were originally published through the dates of 1963-1991. Hans-George Gadamer wrote the book on the precedent of exploring what it means to heal, as both a patient and a provider. He was born in 1900 in Marburg, Germany and is best known for his magnum opus Truth and Method. He grew up with a father who was a pharmaceutical chemistry professor and a mother who died of diabetes. Both of his parents are strong suggestions in his interest to pursue scientific studies. Hans-George studied classics and philosophy at the University of Breslau and at the University of Marburg. He finished his philosophical studies under Heidegger and continued to follow him to Marburg to start his early career.

Gadamer introduces his work by explaining that although he is a philosopher, not a patient or a physician, he wishes to discuss "the broad range of problems which arise in the field of health in the scientific and technological age" (pg. ii). As a philosopher, he hopes to address health for the sake of everyone and the way we lead our lives. It is also important for us to find the perfect balance between the capabilities of technology and the responsible choices we must make. He defines health as, "the manifestation of human existence" (pg. ix). As humans, we must take charge in regaining our health and forget that one is healthy. Health is what is innate and thus a concern for everyone.

Apologia for the Art of Healing

Physicians gradually become a body of knowledge that grasps the universal. Techne was the first application of medicine as a Greek practice, and has now become a western practice. It is the science of the humankind and ultimately the pursuit of the connection of cause and effect. Physicians produce based on knowledge of what is happening on a basis of grounds. However, unlike traditional craftsman, "physicians can no more prove the worth of their art to themselves that they can to others" (pg. 33). They produce in the form of art, not ergon (work) but a confirmation of skill. Health is nature itself and something that already exists. It seeks within nature the ability to restore and the ability to contribute to the natural process as a whole. However, modern science is more the division of labor and thus the removal of techne.

Modern healthcare takes the natural condition of equilibrium as its foundation. It seeks to restore the equilibrium that was once disturbed. Medical practice is defined as "the fluctuating state of equilibrium characteristic of health is qualitatively distinct from that definitive loss of equilibrium when everything finally comes to an end" (pg. 37). For medical action, can result in two ways: a disturbing factor itself or a specific healing effect. Medicine is a strange unification of theoretical knowledge and practice know-how. However, modern views of science suggest a movement, not to restoration of equilibrium, but more to projective construction. For the knowledge involved, is a form of construction and it is the act of essentially replacing the natural with the artificial.

"For sickness, and loss of equilibrium, do not merely represent a medical-biological state of affairs, but also a life-historical and social process. The sick person is no longer simply identical with the person he or she was before. For the sick individual 'falls out' of things, has already fallen out of their normal place in life. But the individual who now lacks and misses something previously enjoyed still remains orientated towards returning to that former life" (pg. 42).

The act of healing is doing the right kind of exercise in the right kind of way. A doctor not only must inspire trust in its patients but also limit their professional power. They must look beyond "the 'case' they are treating and have regard for the human being as a whole in that person's particular life situation" (pg. 43). For a doctor acts as a binding agent within our humanity.

The Problem of Intelligence

Intelligence is "one appropriately employed to measure performance" (pg. 45). It shows a general ability that is not determined by capacity or relation to any objects of thought. For, words never exist within isolation. It is derived from the Latin word intelligenta or the highest form of insight. Primarily, its use is the ability to identify the highest of principles. However, it has transitioned from the understanding of principles to the ability to recognize things, facts, relations, etc. This definition, unfortunately, placed man on the same level as animals. Enlightenment and the motivation of pragmatic ideas brought intelligence away from its animalistic level and toward pure instrumentality.

Humans differ from animals in their overall awareness of time or the study of phronesis. "It means the ability to forgo gratification of the most immediate goal in favor for a longterm purpose" (pg.46). Intelligence is present in all human behavior and thus within all behavior that is intelligent, an entire person is present. This makes it more of a tool or an instrument.

The Experience of Death

Along with the period of the Second Enlightenment, came the demythologizing of death. It became, what is today, the slow disappearance of death represented in modern society. For in a sense, we no longer view the miracle of life. It, like the treatment of health, is adapted into a technological business. However, there is no other experience through our lifetimes that clearly marks our limitations on our control of nature. For "the prolongation of life finally becomes a prolongation of death and a fading away of the experience of self" (pg. 62). This type of action can be seen in our modern use of sedation drugs and numbing medication or even in the use of life support.

Our neglection of death is instilled in our fear to come to terms with the idea that our predictability of the future and our lives will one day just end. Now death becomes just a bad reward from our doctors. However, death aids in the process of becoming human and its offerings. As Gottes Weise expresses, "We do not hear the murmur of God's song, we hear it only when it ceases" (pg. 63). Death isn't a learned avoidance; our subduing of death is an elementary reaction stemming from our will to survive. Man cannot grasp that when we envision futures it actually only just comes to an end. We see that we can have a future when we are not aware that there is no future.

Eye and Mind - Merleau-Ponty

Summary by Gretta Berens

The Primacy of Perception is a collection of studies from Northwestern University. They consist of writings in Phenomenology and Existential Philosophy. The chapters cover the realms of art, philosophy of history, and politics. Collectively, they bring together the major themes of Merleau-Ponty's philosophy. The writings were aimed to naturalize phenomenology which resulted in psychology and cognitive science. "Eye and Mind" was the last published essay.

Classical science differs itself from modern science by getting back into the world itself. Through this, it finds the foundation for operating. However, today it is deduced to data-collection by using the formula: test, operate, and transform. Science "manipulates things and gives up living in them" and comes face to face with the real world only in sporadic occurrences. It deduces its production to the apparatuses that study it by treating everything as though it is meant to enter a laboratory. Modern scienc's fundation of thinking is based on the "fundamental bias is to treat everything as though it were an object-in-general - as though it meant nothing to us and yet was predestined for our own use." This contrasts remarkably to artists, who lend their bodies to the world.

"But art, especially painting, draws upon this fabric of brute meaning which activism would prefer to ignore. Art and only art does so in full innocence" (pg. 161).

By lending their bodies to the world, artists are able to change the world into art pieces. Paintings instill interest in us by their resemblance and likeness to our own lives and not their duplicity of it. What is depicted in the paintings is both out in the world and in the heart of the visionary. We see the space and what is also included in that space.

The painter shows the thing how it becomes things and the world how it becomes world. The paintings produced show what still pictures cannot, a search for subtle moments and the overlapping of events. The lines drawn render the visible and bring to life a movement of a "pre-given spatiality." Painting is an art of space without a device to physical move upon. It portrays the body in an instance it never actually partook in.

However, Descartes saw painting as just a mode of thinking and not being. Color was only ornament not a presentation of things. Paintings were simply what existed and showed only what we directly see. However, to Merleau-Ponty, paintings expose the manifestation of content, meaning, history and the manner of being. They offer us a visual of the imagination of the reality as though it is a "third eye." As Valery states, "the painter takes his body with him."

Color is the fusion of our brain and the universe. It draws us nearer to the center of the thing. Painting is a celebration of our visibility. The "visible world" is "complete when only partial." It is at a distance from us. Thus paintings have the ability to arouse in us quality, light, color, and depth. For example, "the animals painted on the walls of Lascaux are not there in the same way as the fissures and limestone formations. But they are not elsewhere." I simply see it.

Depth is considered the third dimension; however it is not merely a dimension but an experience of reversing dimensions. It is everything in a place at the same time. Depth is a relationship in which we draw measurements from, a global location of things. For in studying depth, we must seek space and its content together. It is seen as the "space without hiding places" and its dimensions are interchangeable. Our bodies are able to open ourselves to the world through a "natural maturation" as a consequence of one's vision.

"There is a human body, when, between one eye and the other, between hand and hand, a blending of some sort takes place – when the spark is lit between sensing and sensible, lighting the fire that will not stop burning until some accident of the body will undo what no accident would have sufficed to do" (pg. 164).

The body is the intertwining of our vision and movement. The mobile body impacts both the visual world and our vision. It allows one to see what is in reach. My body, thus, "sees and is seen." The reverse power of seeing is in looking or "the inheritance of sensing." In the fabric of the world, we are able to see others and become a thing amongst the others. The sensing becomes what is being sensed. Since things and the body are made up of similar entities, vision must exist in both. As Cezanne states, "nature is on the inside."

Our eyes become the computers of the world learned by the moments of seeing and learning for oneself. The eye "is an instrument that moves itself, a means which invents its own ends; it is that which has been moved by some impact of the world, which it then restores to the visible through the offices of an agile hand" (pg. 165). Vision is not just a metamorphosis of objects but it actually deciphers the signs given within the body. There are two types of vision: the one which I reflect and the one that really takes place. However, there can be no vision without thought. In other words, it is not enough to only think in order to see. Vision thus lies in the mystery of nature. The soul becomes the only thing to understand vision.

However, Descartes, with his opposing ideals, states that the body is a depository of vision and touch. Making our instruments simply "detached organs." Although, to Merleau-Ponty, vision is the means given by being absent from myself.

Poetics - Aristotle

Summary by Gretta Berens

Greek philosopher and scientist, Aristotle, was born in Stagira, Greece in 384 BC. At 17 or 18 years old, he joined Plato's Academy in Athens and remained there until the age of 37. Shortly after Plato's death, he left Athens to tutor Alexander the Great. He writings covered a wide range of subject matter including; physics, biology, zoology, metaphysics, logic, ethics, aesthetics, poetry, theater, music, rhetoric, linguistics, politics, and government all in regards to the Western philosophy. Poetics, written approximately from 384-322 B.C., was disapproved largely by its critics stating that Aristotle had no business discussing poetry and that he deduced poets down to their mere jobs and titles. However, the book is rarely read in this manner. Poetics captures poetry in a natural and appropriate way that reflects the nature of a powerful thinker.

Mimesis is the imitation of action except those that are of mere happenings. Poetry is defined as a form of this imitation which by no means is meant to diminish the work of a poet but instead tries to showcase that poetry is more than a historic representation of events. For the action itself is what was deliberately picked and it is capable of finding completion in achieving some purpose. These modes of imitation can be performed in several ways and thus form the various typologies of art. Arts differ, however, by three respects – the medium, the objects, and the manner of imitation causing the true distinction in the product. This can be interpreted today as the "in which", the "what", and the "how'. The manner is produced by rhythm, language or harmony either one by itself or a combination. Dancing is solely rhythm, instrumental music is both rhythm and harmony, and poetry imitates by means of a language alone. The poet, thus, creates a plot that "place the scene, as far as possible before his eyes" (ch.17). Oddly, the name of a poet is given to the author whether it be Homer, Empedocles, or Chaeremon who all three have nothing in common are still considered the same name with no true distinction.

In respect to the manner of imitation, the differences occur when "the objects of imitation are men in action, and these men must be either of a higher or lower type (for moral character mainly answers to these divisions, goodness and badness being the distinguishing marks of moral difference)" (pg. 11). In a comedy, men appear to be worse than real life while in a tragedy men are better than actual life itself. Furthermore, in comedy and tragedy these events occur one after the other while in nomic and dithyrambic poetry they occur together and thus causes them to be distinct. Furthermore,

"Poetry in general seems to have sprung from two causes, each of them lying deep in our nature" (pg. 15). The first cause is that, as children, poets developed imitation. The second is man is the most imitative of the living creatures. However, it is also the feeling of pleasure that is caused when man imitates that instills their desire to perform this art. Our instinct to create man, in this light, comes from our human nature and our instinct to find both harmony and rhythm due to the execution of coloring or some other cause. For example, pain creates a delight in the contemplation such as when we see immoral depictions of animals and dead bodies.

"Thought and character are the two natural causes from which actions spring, and on actions again all success or failure depends" (pg. 25).

Tragedy is the imitation of an action and life. In every Tragedy there are six pieces – the plot, character, diction, thought, spectacle and song. However, of these six there are four true overarching principles that arrange the tragedy effectively. The plot, the first main principle, is the arrangements of the incidents. A character, the second, is the virtue in which we apply qualities to agents or whether their actions show that they are happy or the opposite. Thought, the third, is the ability to say what is possible and pertinent in given circumstances. Lastly, Diction is defined as the measurable arrangement of words. Song, in return, is in which all people understand. These pieces make up the beginning, middle and end of poems and show what will come to be and what follows. The structural union of these parts act as a whole and if one were left out or missed it would then become disjointed or disturbed. The make-up of a tragedy can be identified by three events – the reversal of intention, recognition and tragic incident. Thus, as a painter teaches us how to look and see what we never have before, the dramatist presents things that never existed until they were imagined or worth paying attention to.

"It is not the function of the poet to relate what has happened, but what may happen – what is possible according to the law of probability or necessity" (pg. 35).

There is quite a difference between the work of a poet and a historian. Poets are far more philosophical than historical because they do not speak to the particular but express the universal. A poem will show how a person may act or talk based on a necessity. They aim to show that even a coincidence is more striking when it is somewhat designed.

It is in happiness that humans find the supreme means to an end. It is a product of both virtue and fortune. Virtual is of two kinds that being of intellectual or moral. Our moral virtue is the tendency towards the actions which are practical that conduce happiness Intellectual can be broken down into three spheres – theoretical, productive, and practical. It is the product of our youth and our choices we make as adults. For all action is the result of calculating the means to an end.

Malcom Heath: Introduction in Aristotle's Poetics:

Malcom Heath defines Poetics as setting up the answers to three questions, "What does it mean?", "What constraints does it impose on the construction of tragic plots?", and "Why is poetry concerned with the universal – that is, why is poetry such that these constraints are appropriate?"

The Universality of Poetics is the accordance with probability that a person of a certain type should say or do things. Of which, they occur in reaction to what is a necessity or a probability. Poetry is concerned with this idea because it reflects what is brought out of these general principles. However, Greek poetry makes it hard to analyze, within this method, because often they feature events like the death of a character's closest friend which is neither a necessity or a probability. This becomes a chance or implies that it is a result of what is in contrast of what is necessary or probable. This unpredictability "does not entail casual unintelligibility" (pg. 5) because we never know what is unpredictable due to the appropriate prior conditions that were made. A plot may be, thus, inferior by not being entirely a valid decision within the sequences of character events. However, Health introduces a new argument on why character may, by chance, be out of 'character'. This is the idea that the Greek's use the validation of the God's in their poetry in order to justify action. For instance, a family curse could lead to the death of a character's father.

Relevance of the Beautiful - Hans-Georg Gadamer

Summary by Gretta Berens

Biography

Hans-Georg Gadamer is the father of contemporary philosophical hermeneutics. He engages tradition critically so that culture can then become alert to its own horizons and thereby restore a continuity of thought and practice. The Relevance of the Beautiful explores the most important of his writings on art and literature. The first part is an explanation of Gadamer's most sustained treatment of philosophical aesthetics.

The Relevance of the Beautiful

Gadamer begins by asking us, how can art be justified as an age-old problem? The beginning of the justification for art was within Socratic thought in the West. In the beginning, art was a method to express time by adorning walls with murals, mosaics, and decoration, however, with the Christian church's rejection of iconoclasm church art was given "a new meaning" and "a new form of legitimation." A self-understanding developed alongside the Middle Ages and Christian art. This western history of art still largely determines our culture's consciousness today.

However, Hegel, the great teacher of speculative idealism, stated that art was "a thing of the past." He represented the radical form of answering this question to make a process through which man can come to know the truth about our knowledge and know it as the truth. In this, art was no longer a visibly represented, presentation of the divine as it was during the Greek era.

Art, when it occupies a legitimate place within the world, effects an integration of community, society, the church, and the artist. After the 19th century, the artist's role no longer existed after being displaced by the industrialized society, thus taking the artist out of the community. The linear perspective of the 19th century also caused a fissure in the understanding of art. It was understood as either an understanding of art as a religion culture versus a provocation by the modern artist.

The linear perspective became a historic representation of time commonly used during the Renaissance. Cubism, however, in 1910 destructed traditional form and allowed a "total elimination of any reference to an external object of the process of artistic creation" (pg. 8). It brought upon the way we analyze art today which is now a task for thinking.
The modern artist tries to involve us actively and establishes a new form of solidarity. It brings about universal communication. Artists, in doing so, experience tension with the expectations of custom and the introduction of new ways of doing things. Modernity becomes a conflict of our historical consciousness and the self-conscious reflection of modern man and the artist.

We are unaware of historical consciousness but without it we may not be able to perceive the precise composition displayed by earlier art. It is defined as "the fact that our senses are spiritually organized in such a way as to determine in advance our perception and experience of art" (pg. 11). For example, Alexander the Great is depicted in "The Battle of Issus" as though he had just defeated the Persians. Without context, one may not draw the connection and significance of the imagery and Alexander would be just a man in a picture.

Art

Art has embodied the same meaning for the last 200 years. The Greeks believed it belonged to the poietke episteme realm, or the knowledge and facility appropriate for production. In art, the work becomes separated from the activity and it is the "emergence of the work as the intended goal of regulated effort" (pg. 12)

"Art is only possible because nature leaves an open domain which in return is able to be filled by the products of the human spirit." Greeks saw art similarly as an imitation of nature. It has no real use but it finds its fulfillment when one gazes upon its appearance. Art is more philosophical than historical because it attempts to be universal.

When the concept of art took on the features which we all have been accustomed too, it became merely "art" in the "museum." This idea coincides with the great artist rebellion which occurred when art rejected the intelligible communication itself and wished to be nothing but art itself. Kant described this experience as "disinterested delight" or the disinterest that forbids us from inquire after art does its purpose. However, art should be more than this for it is "the creation of something exemplary which is not simply produced by following rules" (pg. 21). Art, in return, unites us in its communicative dimension. What it must say to us is only within itself. It challenges us to listen. The artist no longer speaks for the community but forms their own.

> "All art of whatever kind, whether the art of a substantial tradition with which we are familiar or the contemporary art that is unfamiliar because it has no tradition, always demands constructive activity on our past" (pg. 37).

Beautiful

What is beautiful? For us, it is something worth seeing and that enjoys universal recognition. There is no true reason why it pleases us but it is what shines most clearly and draws us to itself. Although it may be unexpected, it can be encountered in the disorder of reality and bridge us between the ideal and the real. It is through the "virtue of the beautiful that we are able to acquire a lasting remembrance of the true world" (pg. 15). Beauty was the process by which art was detached from the sphere of technical facility. Philosophy began to concern itself with it because of its concern for the "utterly subjective". The beautiful could transcend all conceptual thought.

Cognito sensitiva or sensuous knowledge is when perceiving art, nature and the beautiful we do not encounter the universal. For example, an enchanting sunset does not exist in the universal it is an individual appearance itself. When we find this sunset to be beautiful, it is because it "is" beautiful. Understanding beauty is developed by everyone based on being beautiful to lesser or greater degree.

There are two types of things that can be classified as beautiful without qualification: those of nature and those of human art. As Hegel states, “the beauty of art lies in the sensuous showing of an idea” (pg. 33). Great art is thus able to shake us because we are unprepared and defenseless toward the impact of it. Art is irreplaceable and signifies an increase in being. Gadamer continues by explaining what is it that maintains the continuity of art and in what sense art represents an overcoming of time through three concepts: play, symbol, and festival.

Part I: Play

Play is an elementary function of human life and a freedom of movement. It is specifically a self-movement with no particular end. For animals, it is an excess itself in the living being, while for humans it also involves reason and rationality. Counting each bounce, we make of the ball, for example, is play within which reason sets the rules. The act of playing “always requires a playing along with”. There is no separation of distance between the one playing and the one observing for he “takes part”. When going to a museum or a concert, we leave with a new feeling of life than we had before. Everyone involved is a participant. Modern art attempts to break down this distance. When interpreting Cubist work, we actively construct the painting because a “synthetic act is required in which we must unite and bring together many different aspects” (pg. 27). We do not distinguish between the way the work is realized and the identity of the work itself.

Part II: Symbol

The symbol is something through which we recognize someone or something already known to us. In Plato’s Symposium humans were cut into two by the Gods upon misbehavior. Each half then seek to be made whole again causing every individual to be a fragment that only became whole again with the experience of love. Our references point us towards another experience in an immediate way, while an allegory says differently than what we mean with a reference known in advance. A symbol is different than these because it is a representation of a fragment that seeks to complete a fragmented life.

> “Any encounter of art, it is not the particular, but rather the totality of the experienceable world, man’s ontological place in it, and above all his finitude before which transcends him, is brought to experience” (pg. 33).

It is in the symbolic of art that rests upon an intricate interplay of showing and concealing. The meaning is in that art is there. We must replace the word work with creation for the “thing now stands and thereby is there once and for all, ready to be encountered by anyone who meets it and to be perceived in its own quality” (pg. 34). It is more than a manifestation but rather a containment of sense and the impact by which it overwhelms us. The symbolic does not point to meaning but allows the meaning to be presented to us. The symbol thus preserves its meaning within itself like how the play is a type of representation.

Part III: Festival

A festival allows for no separation between people and is in return a community experience. It is where everyone gathers together to celebrate regardless of knowing exactly what for. This is a common art within primitive cultures. The festival is “an intentional activity” which is similar for art because it “is not simply the fact that we are all in the same place, but rather the intention that unites us and prevents us as individuals from falling into private conversations and private subjective experiences” (pg. 40). It does not reoccur but it is assigned to a specific place within time such as Christmas or Easter.

Within art and the festival, we no longer see time as needed to be “spent” but rather as “fulfilled,” and the normal way in which we go about time is stilled. “The work of art is determined by its own temporal structure rather than by the quantifiable duration of its existence through time” (pg. 43).

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STUDIO EXPERIENCE

Second Year

FALL 2013

Instructor: Joan Vordebruggen
Project: Tea House

SPRING 2014

Instructor: Darryl Booker
Projects: Concordia Dance School, Dwelling Project

Third Year

FALL 2014

Instructor: Steve Martens
Projects: Fire Station, Sustainable Learning Center

SPRING 2015

Instructor: Mark Barnhouse
Projects: NDSU Library, SC Johnson Lab Building

Fourth Year

FALL 2015

Instructor: Bakr Aly Ahmed
Project: High-Rise

SPRING 2016

Instructor: Malini Srivastava
Project: Design + Build

Fifth Year

FALL 2016

Instructor: Ronald Ramsey
Project: Historic Home

SPRING 2017

Instructor: Stephen Wischer
Projects: Design Thesis