



One Flew East, One Flew West

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"Architecture reveals not only the aesthetic and formal preferences of an architect/client, but also the aspirations, power struggles and material culture of a society. The built environment becomes a text whose every word reveals a nation's vicissitudes. In other words, a building may be said to be a work of architectural art, then insofar as it serves as a visual metaphor, declaring in its own form something (though never everything) about the size, permanence, strength, protectiveness, and organizational structure of the institution it stands for."

- Norris Kelly Smith

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ABSTRACT

The intention of this thesis is to investigate space as the relationship between architecture, the body and consciousness. With the advent of anti-psychotic medication and General Hospital mental wards constructed in the 1960's, prison-inspired mental hospitals were de-institutionalized based upon the belief that the mentally ill could now be cared for within the confines of their communities. According to the American Psychiatric Association, this shift in loci continued through much of the remaining century, with the expansion of health care coverage and improved doctor to patient ratios. However, with the emergence of private hospitalization "chains" in the 1990's, there has been demand for personalized mental health care and premium facilities.

Advanced behavioral and communal psychological research has also led to new paradigms in the design of mental institutions as well as its facilitation. The myriad questions raised by this shift in axiom afford us the opportunity to ask foundational questions about the relationship between architecture and its occupants through the design of a psychiatric facility. The skewed perceptions and increased environmental sensitivity of mental hospital patients, as documented in Michel Foucault's *Madness and Civilization*, demand a critical rethinking of the way in which architectural space is conceived and understood. This thesis will rest upon the underlining assumption made by Gilles Deleuze and Felix Guattari in *Capitalism and Schizophrenia: Anti-Oedipus* and a *Thousand Plateaus*, that mental illness and irrationality are another way of looking at our world, with equal validity to what we may deem as "normal".



"Faces watching from the nursing station. Two packs a day. The final Chapter. Nothing to do. Carly Simon. Babies crying. Tears of a clown. Forever and a day. Keys. Escape. Alcatraz. Nothing to do about nothing. A post office mug. Coffee in the morning? Spelled with two Fs, two Es. No thank you. And you're welcome. Blaring silence. Bomber plans. The sixties. Bouncing laughter. Can't breathe. This planet. Too terrified. Charles Mansion. To die, they say. To die. Help me. Help me. Please. Tick. Tick. Tick. Goodbye. Smash that window. I can fly."

-The Quiet Room (Schiller, Bennett 1996 p. 95)

ONE FLEW EAST, ONE FLEW WEST

6

According to the National Institute of Mental Health, 26.2% of American individuals 18 and older suffer from a diagnosable mental disorder in a given year.¹ When applied to the 2008 United States Census residential population for individuals 18 and older, this figure translates to 60.3 million individuals.² Furthermore, mental disorders are the leading cause of disability among those 15-44 years old.³ Despite their widespread nature, mental disorders are greatly stigmatized by today's society. Many mentally ill individuals find themselves trapped in stressful communities and prison inspired environments that continue to attempt the normalization of mental illness. It is estimated that a third of homeless individuals suffer from mental illness and become homeless after passing through the country's rapidly declining mental health system.⁴

1. National Institute of Mental Health, The Numbers Count: Mental Health Disorders in America (NIMH, 2009), www.nimh.nih.gov (accessed January, 2010).

2. U.S. Census Bureau, Population (U.S. Census Bureau, 2008), www.census.gov (accessed January, 2010).

3. National Institute of Mental Health, The Numbers Count: Mental Health Disorders in America (NIMH, 2009), www.nimh.nih.gov (accessed January, 2010).

4. Tom Craig, Philip Timms, Facing up to Social Exclusion: Services for Homeless Mentally Ill People, International Review of Psychiatry (2000): 12,206-211.



"The Ship OF Fools," Hieronymus Bosch, ca. 1490-1500,
Musee du Louvre, Paris

Although modern psychiatry views mental illness as a disease separate from the individual, modern society has yet to distinguish between the two. As Michel Foucault documents in *Madness & Civilization: A History of Insanity in the Age of Reason*, the division between madness and sanity is not defined medically; it is defined by social structures and economic engines.

By the 16th century, leprosy was formally isolated and treated through the use of sanatoriums. While leprosy vanished from the western world, the social structures that bound the illness remained. As Foucault explains, the void left in leprosy's wake was filled by an image of madness, as an ambiguous and passionate disorder, if not extremely dangerous. This attitude towards madness gave rise to the beginning of confinement. The "Ship of Fools," a vessel filled with those deemed as mad, was cast out to sea with no hope of returning. Acting as both a form of isolation and exile, it was thought that those aboard the doomed ship would find sanity.

While in the 16th century madness was viewed as something to be feared, 17th century societies believed that madness was something to be disciplined. As the economic crisis grew, those who were idle members of society were considered sources of disorder. Therefore, it was the duty of society to order them through the labors of work. This notion gave rise to the creation of the "Hospital General" in the year 1656.

Contrived in Paris, France during the mid-century and eventually spreading across all of Europe, the Hospital General is described by Foucault as an ordering machine. Holding up to 6,000 occupants, the Hospital General was a prison for those considered to be idle including the criminal, diseased and mad.⁵ Those inside were given the right to food provided they fulfill their role within the economic institution that was the Hospital. The state considered it their right to confine those whom they deemed hazardous to the ordered system. Once inside the Hospital General walls, the occupants were put on display in cages as they went about their daily routines in dire living conditions.

5. Michel Foucault, *Madness & Civilization: A History of Madness in the Age of Reason* (Pantheon Books, 1961), 32.

This view of madness was drastically altered as Europe succumbed to a series of great plagues in the mid 18th century. As European culture became increasingly focused on religion as salvation, madness was no longer viewed as an economic issue. Foucault notes that all preconceptions of madness had been removed with the destruction of the Hospital Generals. Now understood as a sin in the eyes of God, those considered mad were sheltered by society in an attempt to aid afflicted individuals. The mad were often passed from home to home and cared for by the entire community, creating a strong bond between the ill and the larger social sphere.

As the beliefs of the mid 18th century slowly eroded, they led to the notion of the madmen as a sub-human. Considered as animals and social deviants, mad individuals were locked in cages in an effort to control their behavior. The 'House of Confinement' was born out of this period and marked the creation of a new social space, one in which the individual was removed from a society that valued work as the ultimate measure of morality. The Houses of Confinement became known as "human stables," containing all those who were deemed unable to function normally.⁶ The buildings were disease ridden slums in which prisoners seldom survived. However, as conditions within the Houses of Confinement began to further deteriorate, an internal struggle between madness as a moral issue or medical issue began to take hold within the social elite.

By the 19th century, treatments as well as cures for madness began to emerge. The act of confinement for madmen alongside social deviants was seen as an economic and moral error. This medical perspective of madness led to the birth of the asylum. Seen as a therapeutic establishment, the asylum's goal was focused on curing the individual. Thus madness gained a new social presence; a place in a society that at one time attempted to isolate and exile it.

6. Michel Foucault, *Madness & Civilization: A History of Madness in the Age of Reason* (Pantheon Books, 1961), 43.

Through this archaeology of madness, one can understand the disorder as unnatural and dependant on the society in which it exists. Created and determined by socioeconomic factors, the fate of the mad are entirely dependent on the oscillation in patterns of societal knowledge and opinion. This leads one to question the implications of today's current attitude in the treatment of the mentally ill, their place in society and the creation of their environment.

In 19th and early 20th century United States, these questions have been answered through the institutionalization of the insane asylum. With the intention of regimenting and assimilating patients into a daily routine, insane asylums became a microcosm of societal values and were the pride of many towns at the turn of the 20th century. During this period, it was believed that the architecture alone could cure 70% to 90% of the patients, with spatial relationships being one of the most important aspects of treatment.⁷ However, many paradoxes arose through the design of the asylum as a home like setting. This was in contrast to an institutional and benevolent setting whose role was primarily surveillance. Nevertheless, many designers and psychologists believed that civilization was the root cause for mental illness; therefore, asylums were removed from urban locations in an attempt to connect patients with nature.

The paradoxes that arose through the design of the asylum led to great experimentation in planning, with most ideas stemming from the long established prison typology. In America, most prisons were predicated on the theories of John Howard, featuring a radial plan with small windows along the façade and a single loaded corridor. This organization permitted prisoners to be under constant surveillance, even with their backs turned. The radial plan had great influence on asylum planners in the mid 19th century and held many benefits such as hallways that could be re-appropriated into dayrooms.



7. Carla Yanni, *The Architecture of Madness: Insane Asylums in the United States* (University of Minnesota Press, 2007), 1.

The spoke-like wings of the radial plan also allowed for easy separation and categorization of patients and prisoners alike, while the relatively short wards provided an easy means for natural ventilation. Nevertheless, as the country further transitioned into a service based economy, doctors began to demand higher moral treatment in the care of the mentally ill, requiring planners to deviate from the prison-like topology.

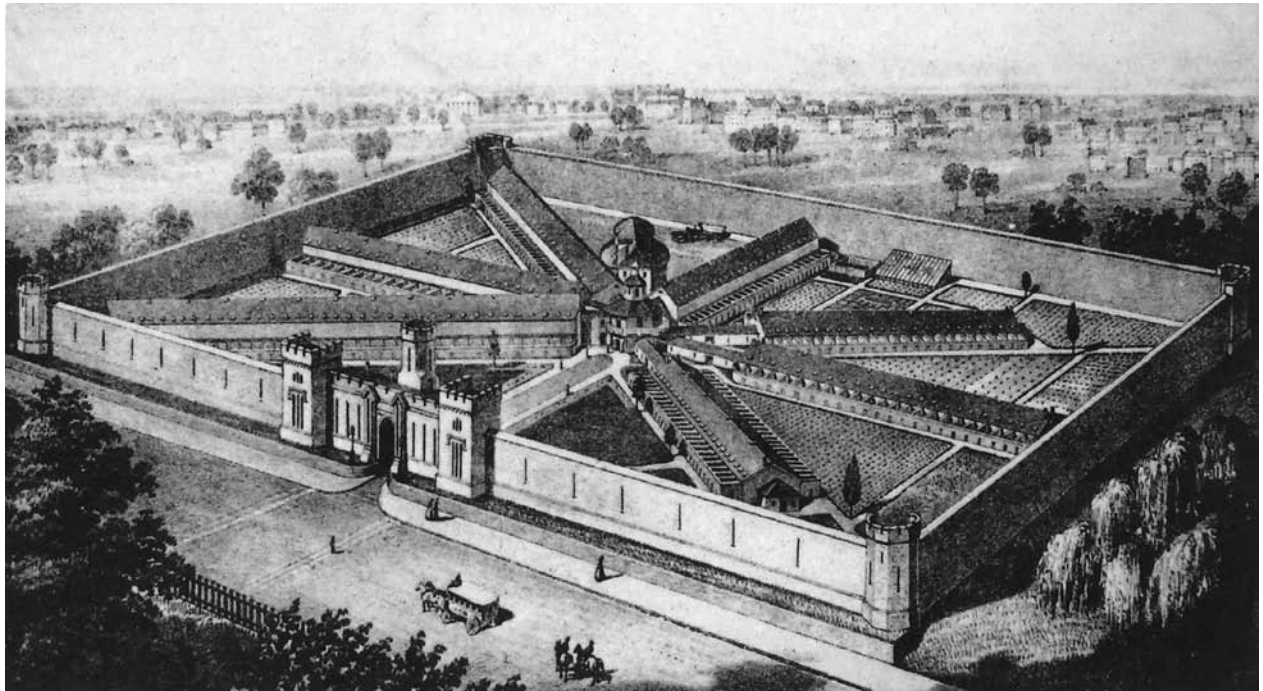
It was through this need that Quaker psychologist Dr. Thomas Kirkbride developed the “Linear” or “Kirkbride” asylum plan that would become the standard in asylum design, dotting the outskirts of many cities. Made up of small stepped pavilions, the Kirkbride plan forms a shallow “V” shape which creates a connection to the landscape that was far superior to when compared to the radial, “H” or pentagon plans.⁸ The simple, compact and easily expandable shape of the Kirkbride plan also proved more efficient than the “U” and “E” shaped plans which had been previously celebrated for their connection with nature.⁹

The Kirkbride Asylum’s size, formality, and heavy stone materiality were intended to signify the stability and power of the state. Holding anywhere from 250 to 600 patients at a time, the program of the asylum accounted for chapels and public parlors grouped with staff rooms in the center, flanked on either side by separate facilities for men and women.¹⁰

8. Carla Yanni, *The Architecture of Madness: Insane Asylums in the United States* (University of Minnesota Press, 2007), 58.

9. *Ibid.*

10. *Ibid.* 130.



Eastern State Penitentiary, Philadelphia, 1823-29

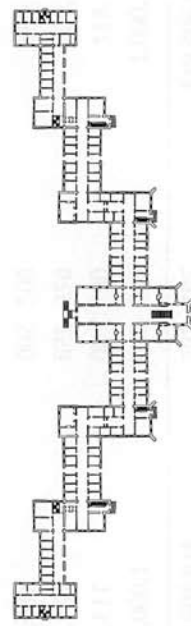
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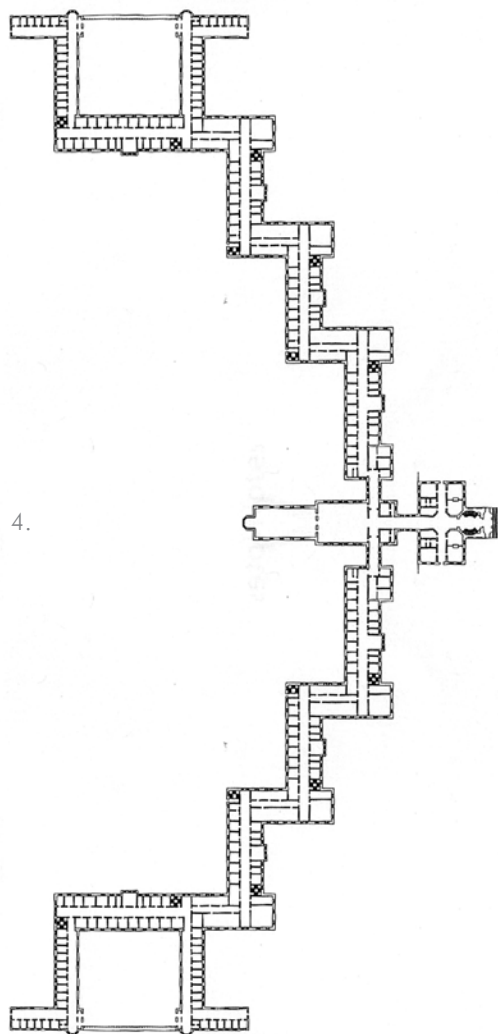


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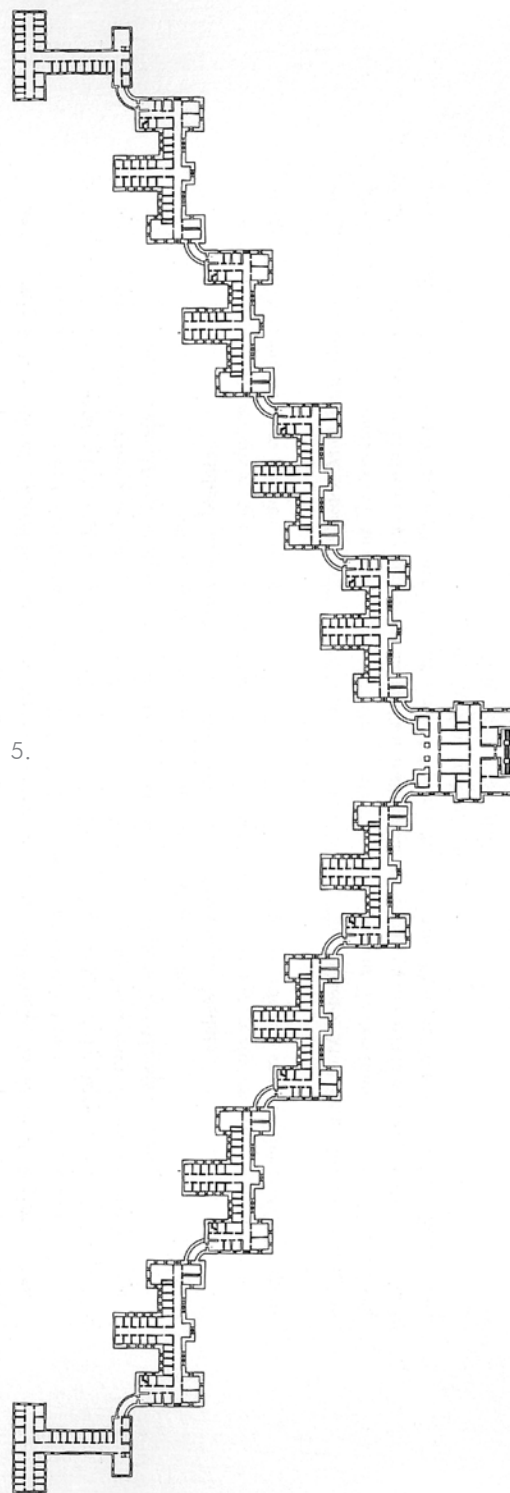


The growth of the Kirkbride Plan in the United States.

1. Public Hospital, Williamsburg, Virginia, 1770. 100 feet across.
2. New Jersey State Lunatic Asylum, Trenton. 1847. 480 feet across.
3. St. Elizabeths Hospital, Washington D.C. 1852. 750 feet across.
4. Grey Stone, Morristown, New Jersey, 1872. 1,243 feet across.
5. Buffalo State Hospital for the Insane, Buffalo, New York. Started 1871. 2,200 feet across.



4.



5.

Through the stepping pavilions, divided by security levels, a single double loaded corridor stretched from one end of the asylum to the other which provided easy transport of patients and supplies.

The pavilions themselves were three stories high and limited in length to “what the wind could carry through,” in an effort to provide natural ventilation for patients.¹¹ Each pavilion contained three wards with a parlor room, a dining room, clothing room, bathing and washroom room as well as space for two attendants. Commonly set into lavish landscapes, the pavilions were isolated from society based on Kirkbride’s notion that “cheerful landscapes and handsome architecture profoundly affected patients.”¹² The social life in the pavilions, controlled by doctors and staff, was intended to mimic that of 18th century English parlor homes. Patient’s daily routine consisted of reading, music and lantern shows as a form of treatment intended to compliment the architecture.

Celebrated by many doctors as spacious, brightly lit, and comfortable, the Kirkbride plan was a welcome change for many mentally ill patients who migrated from jails and closed confinement. In fact, the Kirkbride plan was so successful that it was adopted as the standard by the Association of Medical Superintendents of American Institutions for the Insane, who then lobbied in cities across America for its construction.¹³



11. Carla Yanni, *The Architecture of Madness: Insane Asylums in the United States* (University of Minnesota Press, 2007), 60.

12. *Ibid.* 51.

13. *Ibid.*

Despite its success, the Kirkbride plan was greatly criticized as psychological medicine progressed. The complete removal of an individual from society, coupled with a goal of domesticity that an institution could never achieve, is contradictory. Many of the superintendents of the large asylums spoke of the great difficulty they had in “wanting to promote the asylum in the public eye as a serious and stable institution and, at the same time, calm family’s fears with domestic allusions and spaces.”¹⁴ The highly repetitive spaces created by the single doubled loaded corridor earned these asylums the nickname of “great suburban palace prison(s),”¹⁵ while the hierarchies of the ward often led to a patient versus doctor mentality.

In an effort to combat these critiques of the mental healthcare system, a second asylum typology was created. Known the cottage plan, the design strived for a smaller scale while allowing for a freer and more social atmosphere among patients. In this plan, groups of abandoned structures, such as abandoned homes and school buildings, were reused and converted into individual hospital wards. Each ward consisted of a parlor and kitchen on the first level with caretaker and patient’s rooms on the second level. It was believed that the representation of home and family portrayed by the cottage plan would be more accepted among society while offering a cheaper alternative to the Kirkbride plan. The decentralization of power with the organization structure of the cottage plan attempted to resolve the patient versus doctor mentality of past plans.

Although the design presented a revolutionary leap in scale and social atmosphere, patients care had not changed. Thus, many problems that were found within the Kirkbride plan remained, such as the adversarial nature between patients and doctors. The communal atmosphere, to which the plan aspired to, did not exist because doctors simply would not allow social contact among patients.

14. Carla Yanni, *The Architecture of Madness: Insane Asylums in the United States* (University of Minnesota Press, 2007), 55.

15. *Ibid.* 65.

Eventually the plan encountered issues of scale as the country moved further into a service based industry; villages of the insane began to populate the outskirts of many towns and cities similarly to Kirkbride asylums.

The debate between the Kirkbride and cottage plan continued until the 1960's when rising costs of maintenance and the introduction of psychotropic drugs forced many asylums to close. With the startling recovery rates of many individuals under the influence of psychotropic drugs, it was now believed that individuals could be cared for within their home environment. However, this way of thinking has led to a new epidemic. Many families are unable to cope with the stress of living with a mentally ill individual, let alone provide treatment. Unfortunately this burden has left many mentally ill individuals as well as their families in increasingly difficult positions. It is estimated that one-third of the current homeless population in the United States suffers from mental illness and unfortunately many illnesses come with high rates of co-morbidity, meaning they come in pairs.¹⁶

Recent trends have moved from large asylums to smaller psychiatric hospitals where environmental determinism is not believed to be as strong of a component to a patient's treatment. As spending on mental health care increases, many of these facilities have been incorporated into general hospitals, while others have remained under private ownership. These private psychiatric hospitals are controlled by large hospital firms such as Behavioral Healthcare Corporation, Universal Health Services Inc. and Sheppard Pratt Systems who gross after tax profits of \$3.4 billion annually.¹⁷ As these corporations continue to expand the landscape of mental healthcare, one must ask what role today's current attitude toward the mentally ill has in the design of these new facilities.

16. Tom Craig, Philip Timms, Facing up to Social Exclusion: Services for Homeless Mentally Ill People, *International Review of Psychiatry* (2000): 12,206-211.

17. Jeffery Geller, A History of Private Psychiatric Hospitals in the USA: From Start to Almost Finish, *Psychiatric Quarterly* (2006): 77, No.1

Throughout *Madness & Civilization: A History of Insanity in the Age of Reason*, Foucault records civilization's attempt to rationalize madness, be it through containment, exile or treatment. It is in opposition to society's tendency to order madness that psychoanalyst Felix Guattari and philosopher Gilles Deleuze propose "perhaps schizophrenia (madness) reveals something that comes to us in pieces, always transforming, constantly enough and everywhere."¹⁸

Deleuze and Guattari suggest that perhaps madness, disorder and the removal of a primary logic holds the potential to become an organizing system; a different but equal world view comparable to what we consider normal. Through this world view, that of madness, the world becomes episodic; one oscillates from a normal state into a psychotic state. Rather than looking to hierarchies between the doctor and patient as the primary organizing element within the psychiatric facility, what spaces would result from a patient focused organization? These spaces would be centered on the goal of integration as opposed to prior goals of separation and assimilation through the acceptance of madness as another world view. The resulting architectural strategies implemented by the design will consequently form a new psychiatric facility, one that holds no resemblance to the previous prison typologies and accordingly becomes less oppressive, more humane.

18. Gilles Deleuze, "Deleuze and Schizophrenia (paper presented at the University of Paris).





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Yanni, Carla. *The Architecture of Madness: Insane Asylums in the United States*. University of Minnesota Press, 2007.

Opposite Page: A Collage Exploring the alienating approach to modern psychiatric facility design where the patient often feels as if they are on a performance stage.

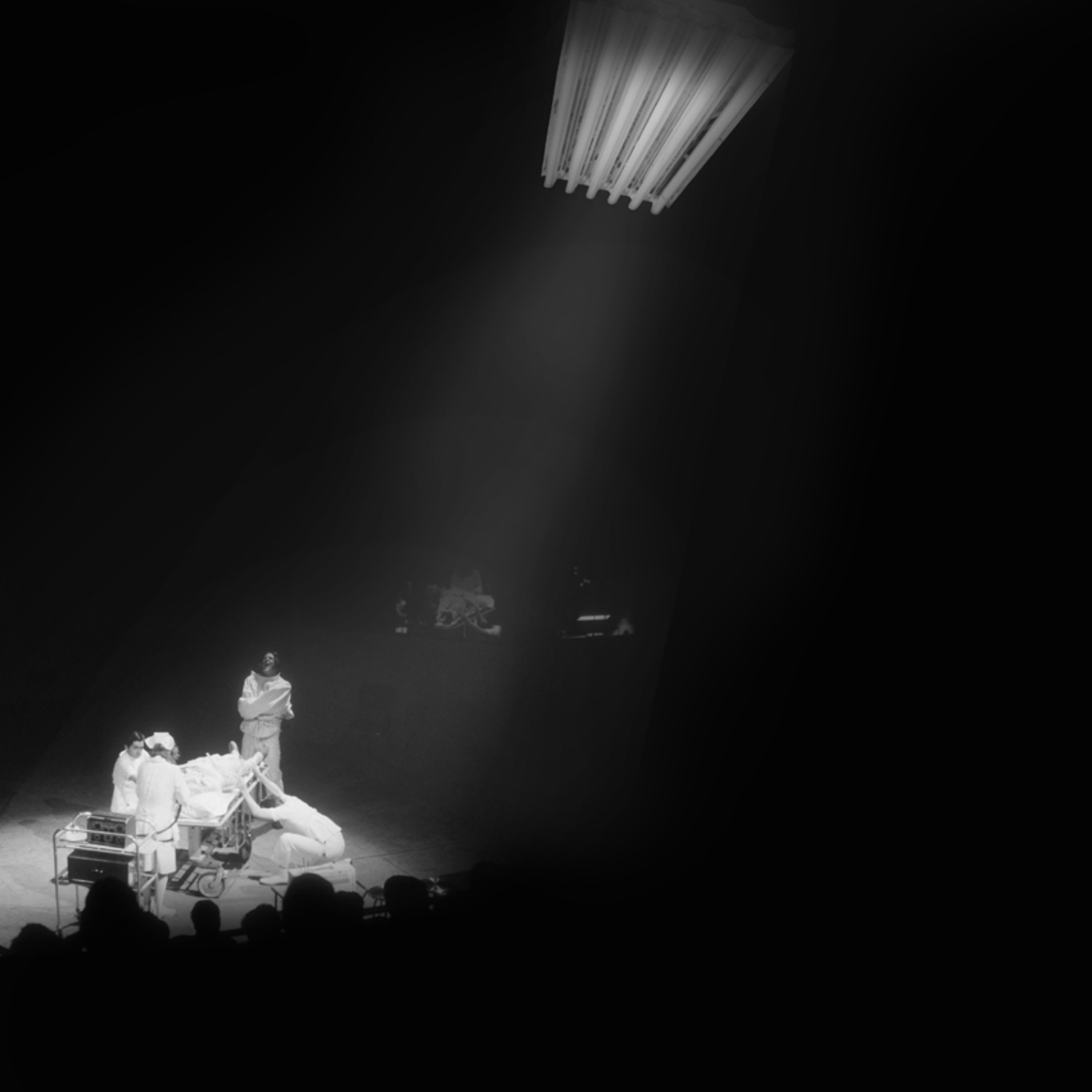
22 PRECEDENT STUDIES

H H Richarson Complex
(Historic Precedent)

Jo-Ellen Smith Psychiatric Hospital
(Anti-Precedent)

Ellisnore Psychiatric Hospital
(Organizational Precedent)

Children Psychiatric Hospital
(Organizational Precedent)



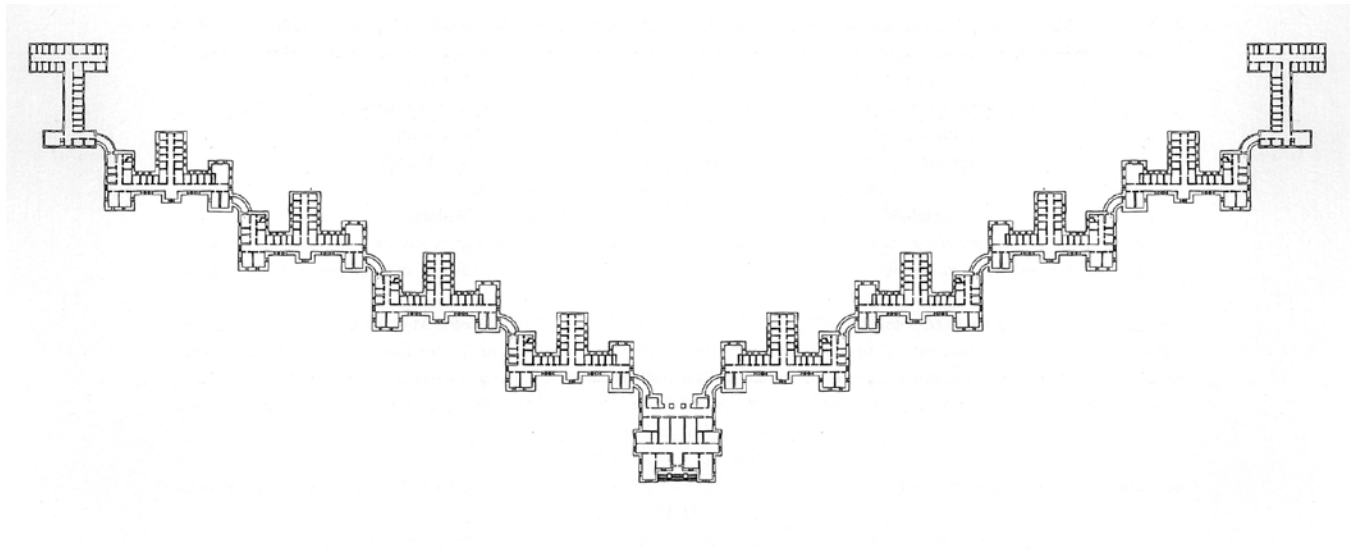
H H Richardson Complex

24



Completed in 1895, the H.H. Richardson Complex occupies a massive site on the northern edge of Buffalo, New York. Designed by Henry Hobson Richardson with assistance from psychologist Dr. Gray and landscaping by Fredrick law Olmstead, the asylum has received much praise for Richardson's break through use of the Romanesque style. However, while Richardson based the design on the Kirkbride plan, he was also sensitive to its many flaws, thus transforming the typology.

Pertaining to this thesis, Richardson's use of a wide single loaded corridor allowed for a large communal space to be filled with natural light and draw further connections to the landscape. The relatively small pavilions (by Kirkbride standards) permitted each ward to become a separate community while simultaneously adding variety to the public façade of the building. The use of balconies on the exterior also formed a greater connection to the surrounding community while curved corridors connecting to pavilions provided surveillance of those passing through.



Above: The immense floor plan of the H H Richardson Complex.

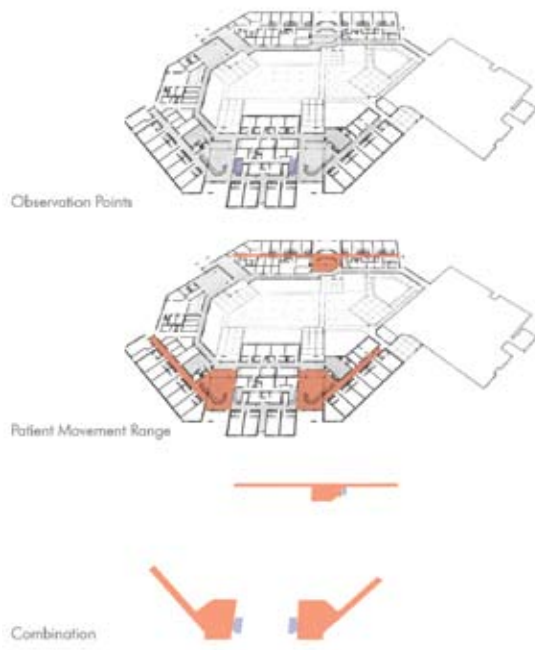
Right: The wide and sunlit communal spaces of the complex.

Opposite Page: The public face of the asylum is further glorified through the use of two large romanesque towers meant to portray a sense of permanence.



Jo-Ellen Smith Psychiatric Hospital

26



The Jo-Ellen Smith Psychiatric Hospital located in New Orleans, Louisiana preserves the archetypal design features of the United States mental health care system. Designed by Architecture Incorporated and accredited in 1989, the facility is 22,000 square feet and holds 20 patient beds organized around a central courtyard. Programmatically, the facility is divided into three wards, each with a recreation area and a nurse station.

The relationship of those observing and those being observed permits little patient freedom, which is noted by modern psychology as the greatest source of stress for mentally ill patients. The atmosphere of the spaces also leaves much to be desired. As documented by the collages on the following page, the spaces of these facilities are filled with dizzying corridors of endless doors and white patient rooms lit by harsh fluorescent lights.



Above Right: This collage examines the experience of many psychiatric hospitals, an endless repetition of corridors.

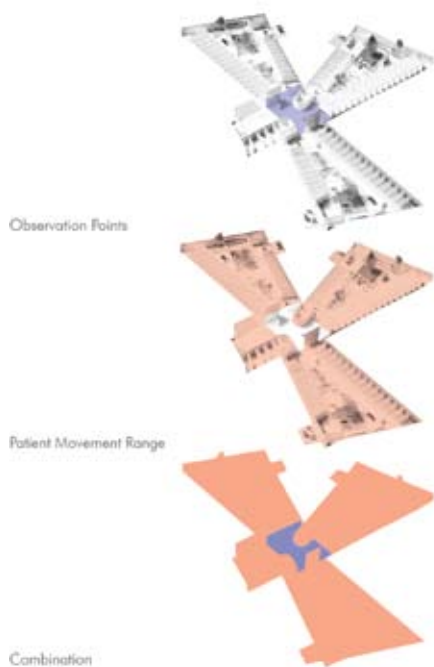
Right: The purpose of this collage is to document the patient facilities of modern psychiatric hospitals, white rooms lit by harsh fluorescent lights

Opposite Page: An organizational diagram analyzing the relationship between the observed, the observer and the range of a patient's freedom.



Ellisnore Psychiatric Hospital

28



In contrast to the standardization of psychiatric hospitals within the United States, many architects in Europe have begun experimenting with a variety of organizational patterns. The example shown here is of the Helsingør Psychiatric Hospital located in Helsingør, Denmark. Designed by BIG in combination with JDS Architects, the plan utilizes unobstructed linear hallways and a central nurse's station as a method of surveillance to allow for maximum freedom among patients.

This organizational strategy combined with individual courtyards integrated into the wards of the hospital permit patients to pass between inside and outside as well as through the other facilities freely. The program has also been divided into day spaces on the lower level and night spaces on the upper level, thus reducing the number of staff members required in the facility at one time. Bold colors have also been implemented as a way finding device for patients, the resulting spaces are bright and vigorously daylight.



Above Right: The fluid and color coded spaces of the facility.

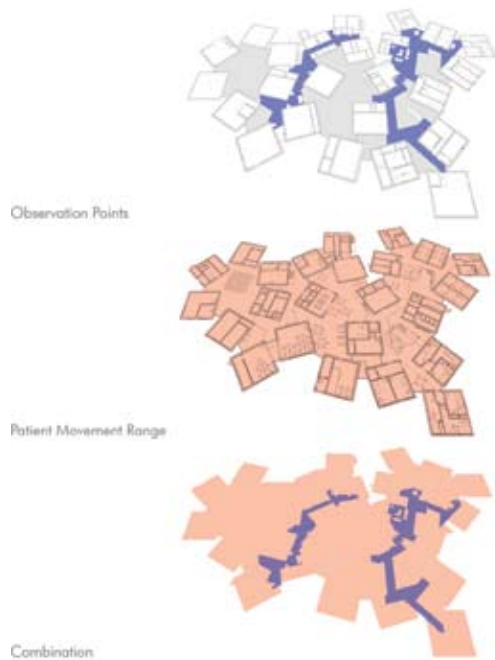
Right: The private courtyards not only become communal spaces, but are areas for natural light to enter the building.

Opposite Page: Through this diagram, one gains an understanding of the organizational principles at work in the hospital.



Childrens Psychiatric Hospital

30



Pushing the psychiatric hospital design to its limits, this final precedent comes from Hokkaido, Japan and is design by Sou Fujimoto Architects. Described as a series of cottages strung through the landscape, the organization strategy focuses on randomness. The programmatic elements are housed in discrete cubes that border an irregularly shaped communal space. An observation catwalk is overlaid above this organization for surveillance purposes.

The resulting spaces can be freely traversed by patients. While the facilities lack a clear connection with the outdoors, the building unfolds as if one was in a kollidescope and becomes something to be explored. The organization of the building begins to recognize two organizational systems, one of randomness and one of absolute order.



Above Right: The wide and irregular communal space.

Right: Natural light leaks in from all directions.

Opposite Page: An analysis of the organization of the facility reveals high levels of patient freedom.







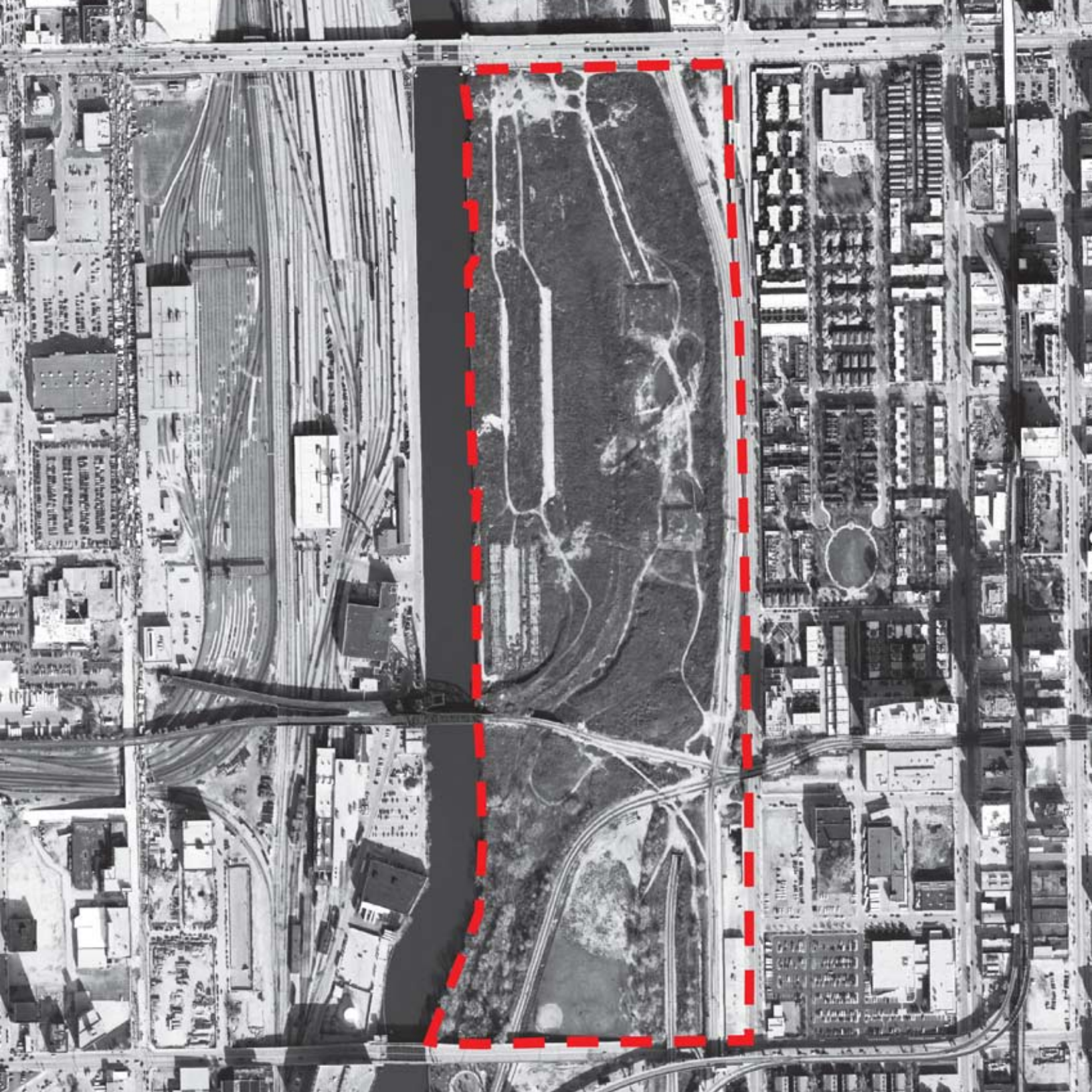
Site Selection

River Corridor District, Chicago, Illinois

Site selection was predicated on three main criteria: the risk factors for mental illness put forth by the Surgeon General, an urban community to which the facility could engage and a lacking in the existing mental health care system. According to the Surgeon General, there are three primary risk factors, aside from genetic disposition, that place one at risk for mental illness; these include a rapid growth in residential population, a low income level and an existing disability. Aside from these factors, many mental health professionals have also claimed that the stress of city life puts one in further danger of developing a mental illness. This belief, coupled with the intent of engaging an urban community, suggests the location of this thesis to be in a city. While the National Alliance on Mental Health demonstrates that many cities in the United States are lacking in mental health care, it is the intent of this thesis to select a site that is severely lacking in mental health resources.

The resulting site is a green field located on the south side of Chicago, Illinois. Located in the River Corridor District, the site meets the three primary risk factors put forth by the Surgeon General. As reported by the United States Census Bureau, the residential population in this area has been growing by 100 individuals every year for the past ten years leading to a dramatic rise in density. While population is on the rise, income levels for the area have declined dramatically over this same period. Poverty levels in the outlying areas of the site are as high as 20% with average home incomes ranging from \$30,000-\$40,000 annually. Furthermore, 30%-40% of the residence in this area of Chicago has an existing disability. Despite the negative demographics, the site remains very walkable, boasting many shops and restaurants to the east among a close knit community.







Industrial Developments



Commercial Developments



Residential Developments

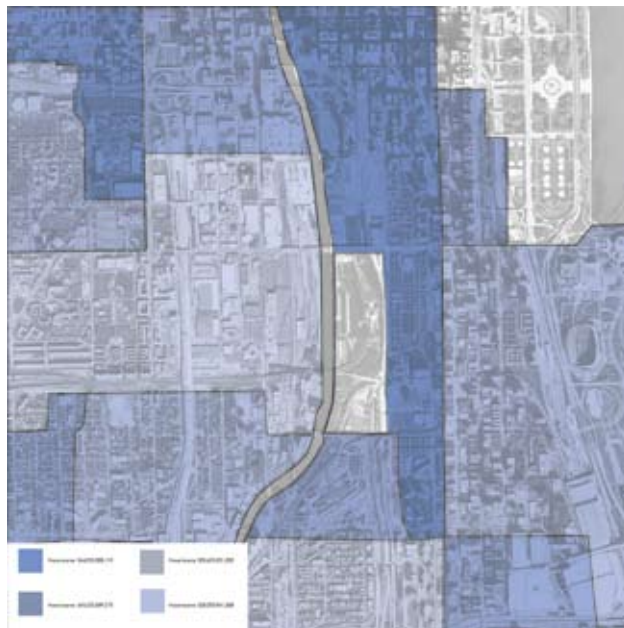
Opposite Page: The high density of the site provides a vibrant and walk able community to engage.



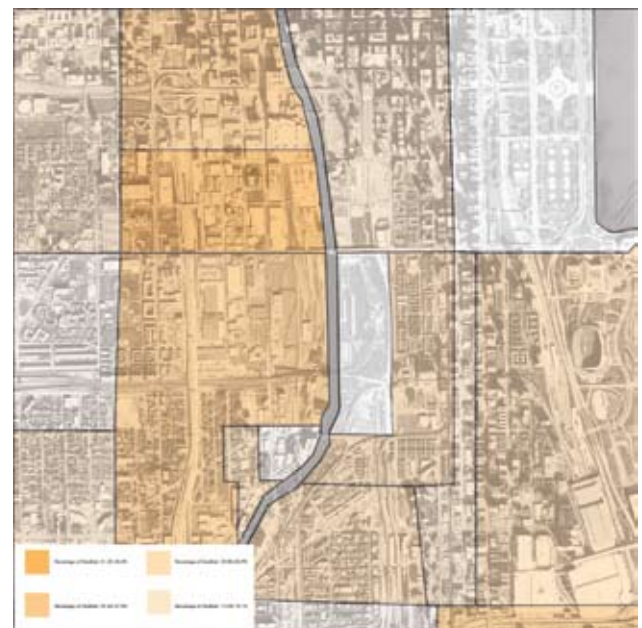
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This aerial photograph shows the Los Angeles River and the surrounding urban landscape. The river flows from the top left towards the bottom center. To the right of the river, a major highway (Interstate 5) is visible. Numerous sampling locations are marked with black circles, distributed across the river and the adjacent urban areas. The circles are concentrated in the upper half of the image, particularly along the river and in the surrounding urban areas.

Below: Income Level Analysis.



Below: Disability Level Analysis



In March 2009, the Mental Health Association of Greater Chicago announced that there have been four psychiatric hospital closures in the south side of Chicago due to a lack of state funding. Although some of the individuals housed in these facilities have moved into geriatric care, a majority of patients now live with family or on the street. Through discussions with the Mental Health Association of Greater Chicago and professionals at the University of Detroit Mercy, the illnesses that pose the greatest risk to this area and have been displaced in the hospital closures have been identified as those suffering from substance abuse, autism and schizophrenia. In an effort to further narrow the thesis, schizophrenia has been selected as the primary disorder to be treated in this psychiatric hospital.

The 62-acre site was once filled with rail lines dating back to 1800's. Today the site is primarily used by homeless individuals as a shanty town and by neighborhood kids as a large soccer field. There is one rail line still in use on the eastern edge of the site; however current plans are to phase out its usage.

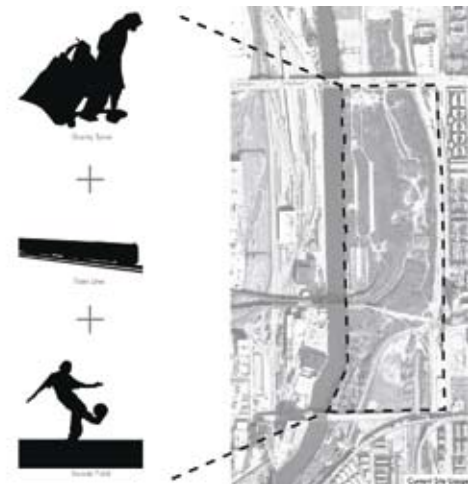
Although the property has changed owners several times, the City of Chicago Department of Planning has developed a master plan for the site which includes retail and residential development. It is the intent of this thesis to integrate the psychiatric hospital into this existing plan.

The City's plan includes extending the street grid through the site with improved pedestrian walk ability on those running east-west. The plan also includes new park amenities and an extension of the river walk in an effort to provide better access to the river front. Big box retail spaces buffer the heavily trafficked Roosevelt corridor to the north, while residential units taper in scale to the south.

Opposite Page: The City of Chicago's current plan for the site includes the extension of the existing grid as well as residential, park and retail spaces.

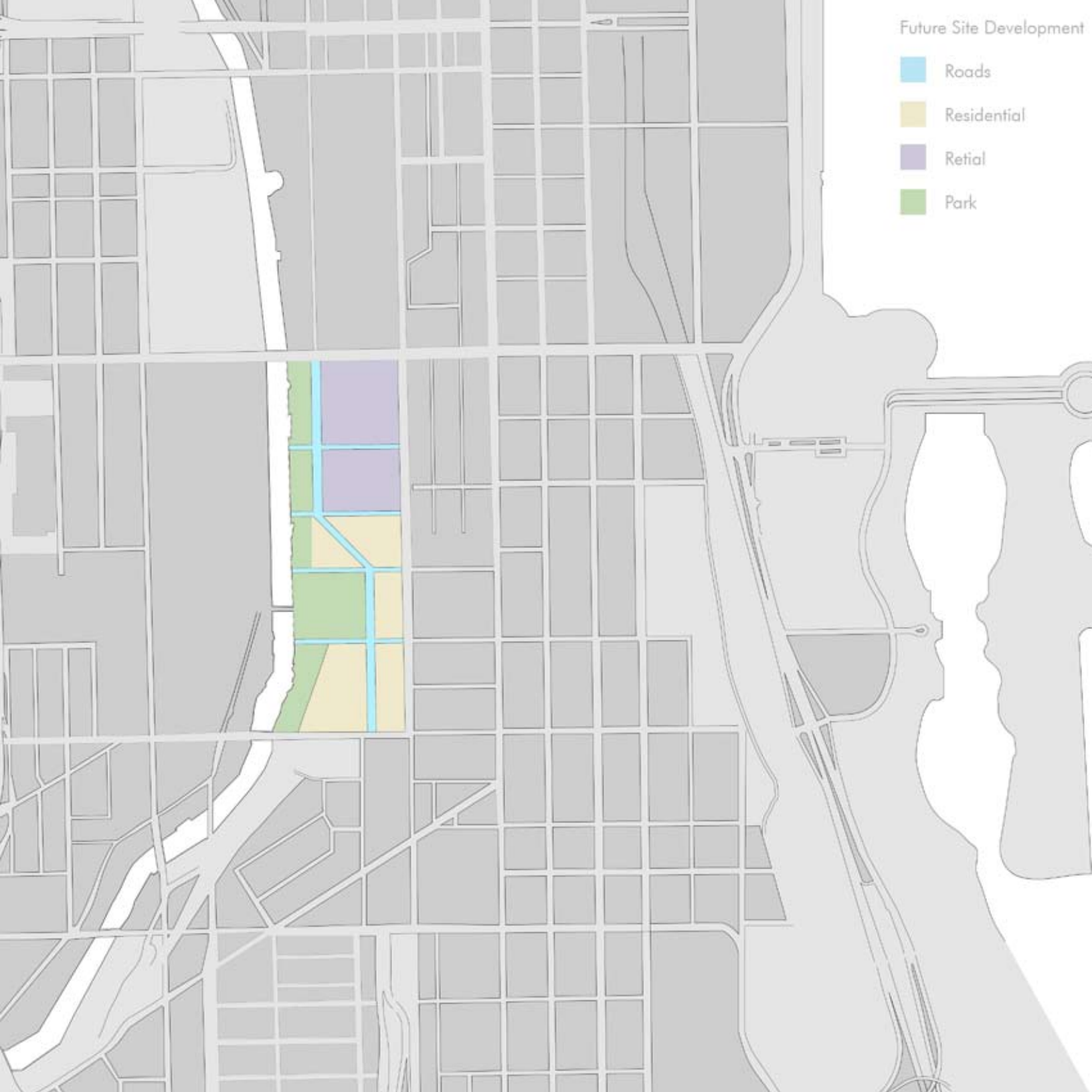
Below: The Site's current usage as a shanty town and a soccer field with one existing train line

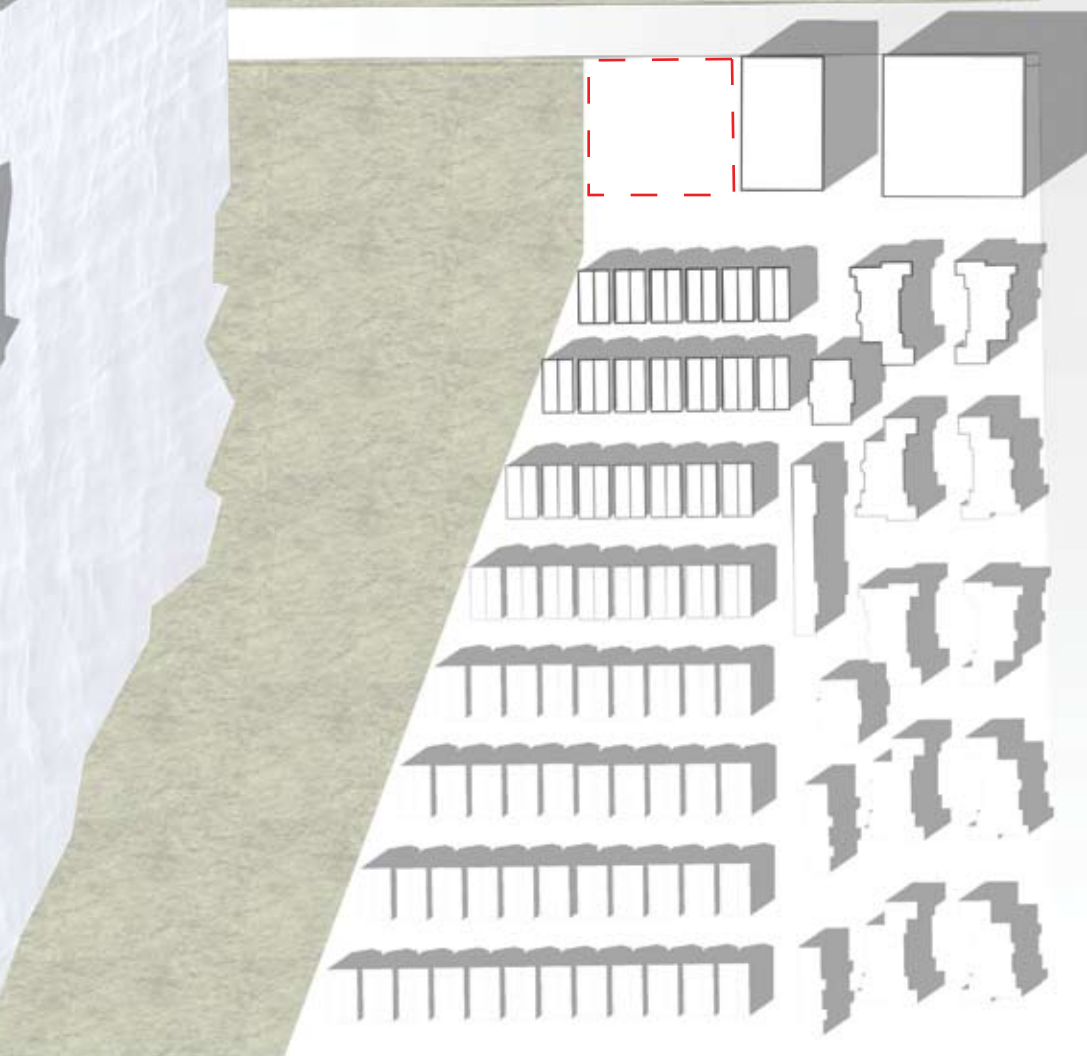
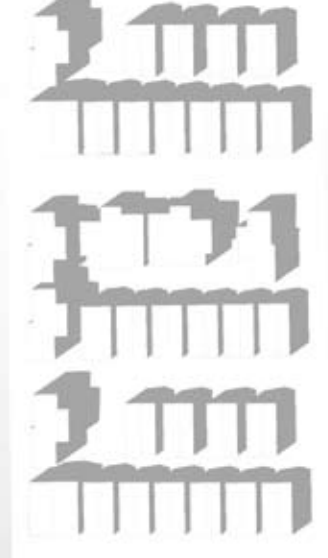
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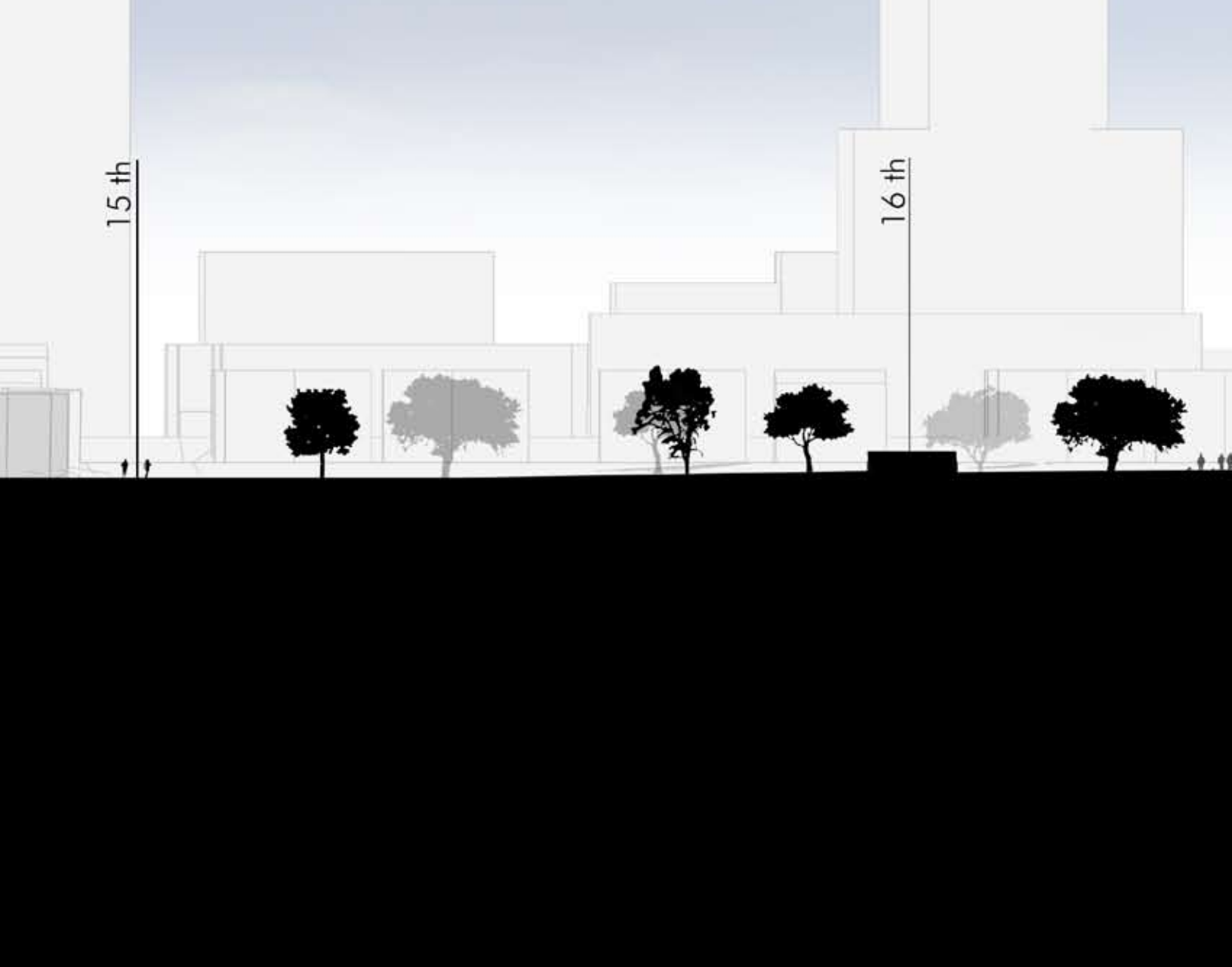
Future Site Development

- Roads
- Residential
- Retail
- Park

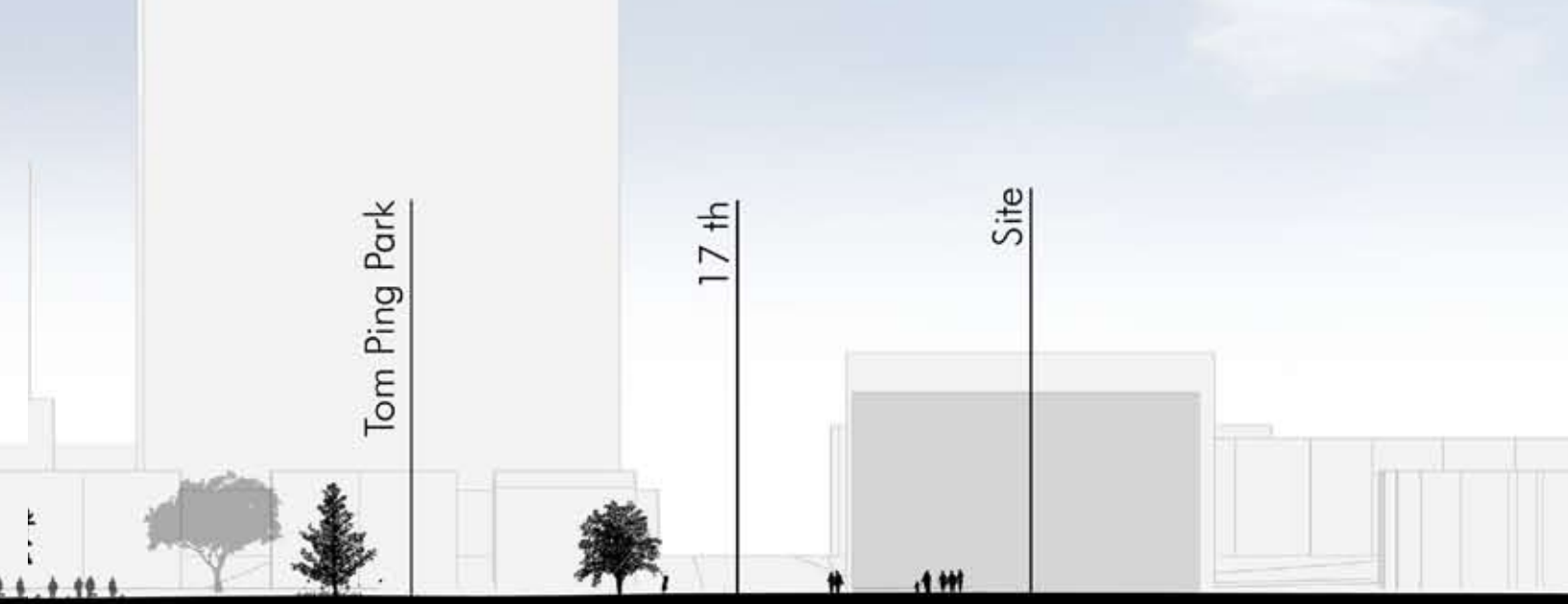


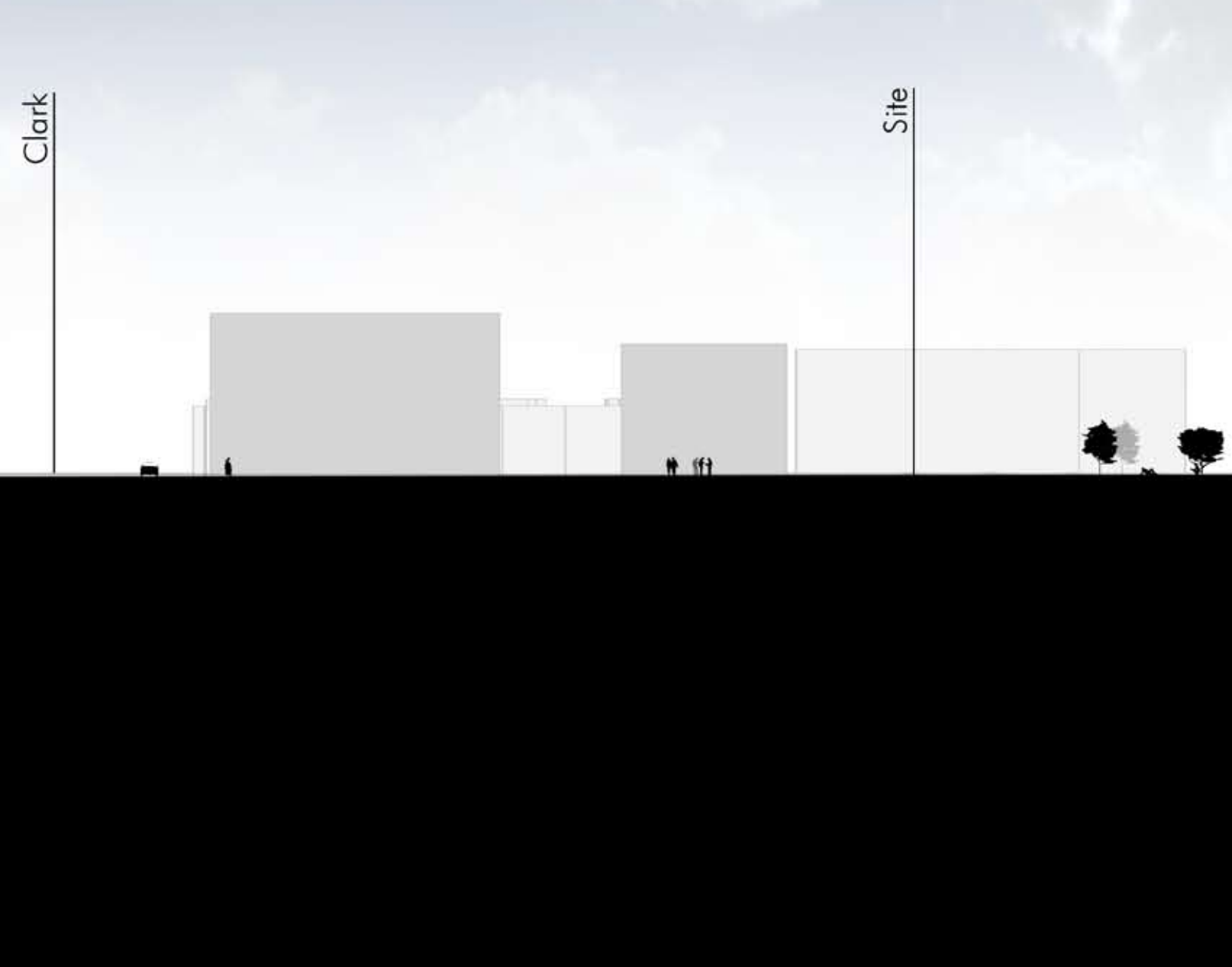


In an effort to integrate the new psychiatric hospital with this plan, it has been decided to further refine the site selection to the southernmost end of the River Corridor District. Boarding the less trafficked 18th street, the site is more secluded while still providing opportunities to connect to the residential communities to the north and south.



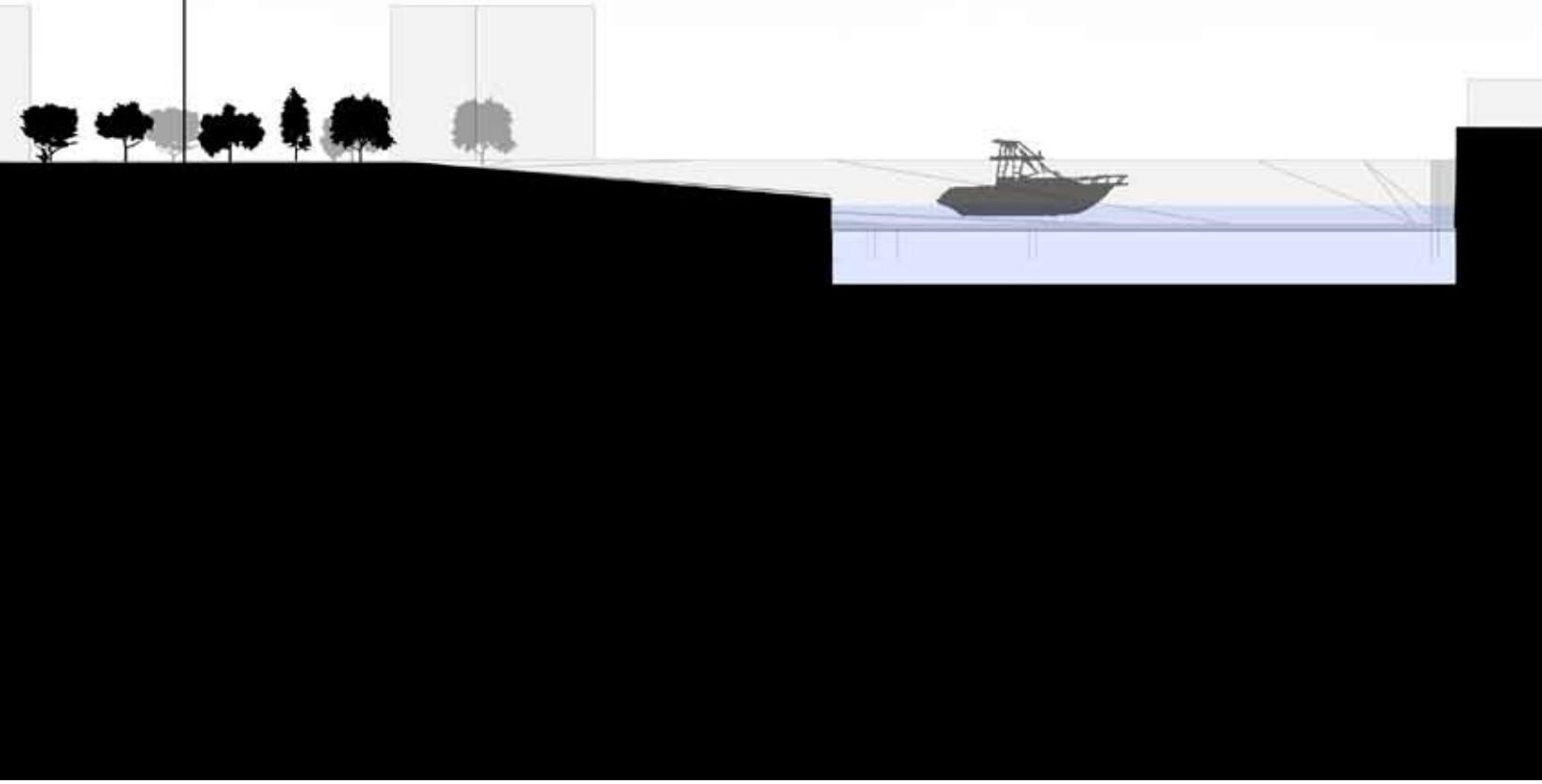
Above: North-South site section.





Above: East-West site section.

Tom Ping Park





Above: The site in its current condition as a green field.





Above: A collage developed after discussions with the site's project manager providing insight into what the community may look like.



Beyond the quantitative aspects of the site, there are many qualitative characteristics that make it an appropriate selection. These phenomenological aspects are recognized and recorded through the use of series of collages.

The first collage responds to the vast emptiness of the site. Like a puncture wound in the repetitious urban fabric, the site appears foreign. This emptiness is a breath of fresh air, as many modern thinkers in mental illness cite the city as a primary stressor.

The second collage describes the texture of the site. Without upkeep, the property has become over grown and park like. This setting provides an unparalleled opportunity to connect with the natural environment that could not be found elsewhere in the city.

The third collage describes the phenomenological experience when one enters the site: being within the cities shadow. While one is geographically located in the middle of Chicago proper, the feeling from within the site is one of looking out upon the city from a primordial landscape. -

Opposite Page: This collage documents the site as a refreshing hole in the city's fabric.

Below: The textures of the site are recorded in this collage.









Big Box Developments to the North.



The pedestrian sidewalks intended to be carried into the site.



The street character intended to be carried in the site.

Opposite Page: Although located in the center of the city, the site feels as if its within the city's shadow.

“We know how to categorize buildings by the shapes of their windows or the decorative detail of their column capitals. We understand them as the products of available materials and skills. What we are not so comfortable with is coming to grips with the wider political dimensions of buildings: why they exist in fact, rather than how.”

-Deyan Sudjic



PROGRAM

Lobby	450 sqft.
Occupational Therapy	1200 sqft.
Dayroom (1 per ward)	1000 sqft. ea.
Living Area (1 per ward)	200 sqft. ea.
Kitchen	240 sqft.
Nurse Station (1 per ward)	240 sqft. ea.
Charting Room (1 per ward)	100 sqft. ea.
Isolation Room (1 per ward)	150 sqft. ea.
Patient Rooms (18 total)	150 sqft. ea.
Offices (4 per ward)	100 sqft. ea.
Outpatient Rooms (2 total)	150 sqft.
Waiting Room	240 Sqft.

Programmatic Intent

Opposite Page and Below: These collages describe the facilities experiential qualities.

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Rather than abstracting the experiential aspects of a space from a pre-defined program set, this thesis began by exploring the phenomenological aspects of key rooms through collage. It is from these collages that a set of intents were derived, thus creating a means to drive the programmed spaces.

The first collage describes a space infused with nature. While modern psychology enforces the idea of relaxation and reconnection with nature; this unfortunately amounts to little more than a courtyard within the center of the psychiatric hospital.¹ Patient spaces typically lack basic connections such as windows or natural day lighting. In this image the room is daylight by the sky and plants surround the user, while fanciful, it describes a space that is both soothing and engaging to the patient.

The second image speaks about communal spaces. Group therapy is an extremely important aspect of mental health care; here it is expanded beyond the group circles of the hospital. The space engages the community through transparency literally and physically.² This can be achieved through many of the programs held by the Mental Health Association of the greater Chicago area's outreach program and also through an overlap of programmed spaces with the adjacent community. The large number of residential units proposed by the Chicago Planning Department affords the opportunity for the housing of a small number of patients within the community. The adjacent park allows for a recreational connection between patients and park goers, creating an environment where utilities might be shared. It is through these efforts that the stigma of mental illness may be attacked, and those deemed mentally ill will have to opportunity to connect to their community.

1. Dvoskin, Radmoski, Bennett, Olin, Hawkins, Dotson, Drewnicky, Architectural Design of a Secure Forensic State Psychiatric Hospital, Behavioral Sciences and the Law (2002): 481-493.

2. Ibid





The collage on the left speaks to the need for recreational activities within the psychiatric hospital. These activities should take place within a variety of environments; exposing patients to various scenarios.³ There should also be a visual link between these spaces, permitting patients to be aware of their surroundings and while feeling associated with others.⁴

The final collage describes the need for profound silence and peace within some spaces. It is crucial to the success of the final design that some spaces promote activity while others promote reflection, whether with one's self or a professional. These spaces should be carefully lit and isolated from others.⁵

Opposite Page: This collage documents the attitude towards recreational activities.

Below: Recorded in this image is the profound need for reflection and isolation.

61

3. Dvoskin, Radmoski, Bennett, Olin, Hawkins, Dotson, Drewnicky, Architectural Design of a Secure Forensic State Psychiatric Hospital, Behavioral Sciences and the Law (2002): 481-493.

4. Ibid

5. Ibid





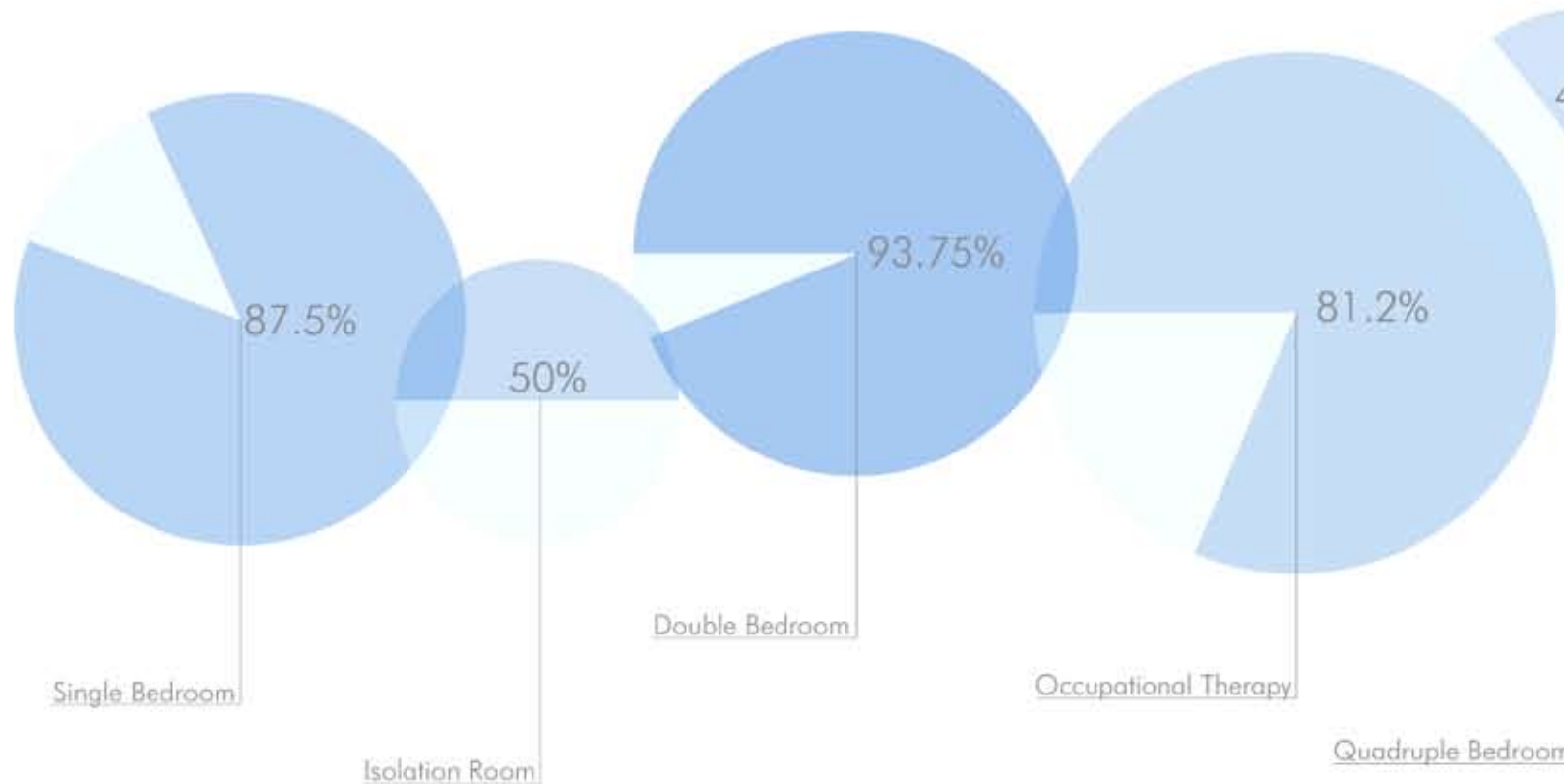
Above: In this site section one can see the layers of participation the facility will have with the surrounding community. This may come in many forms such as through exhibitions spaces of patient work, classes and through the Mental Health Association of the Greater Chicago Area.



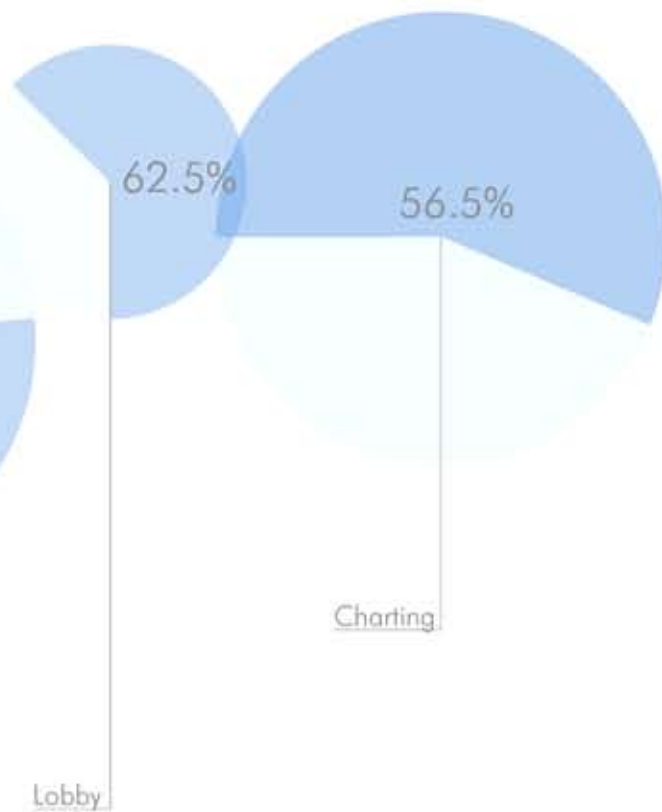
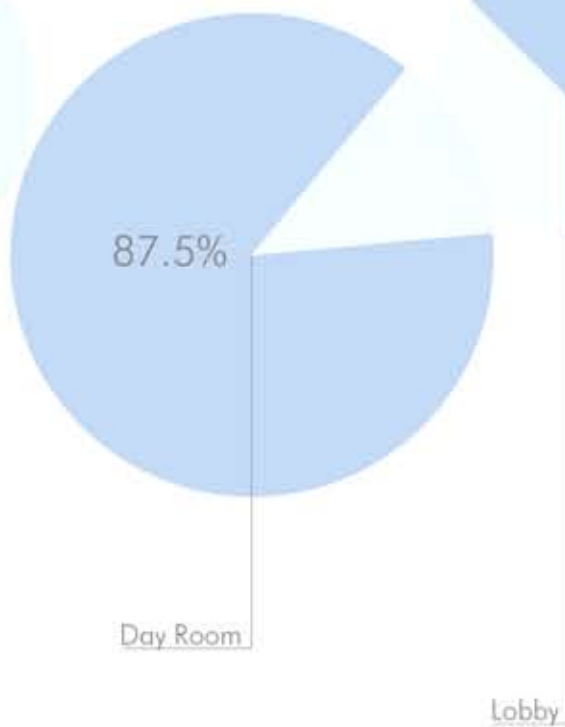
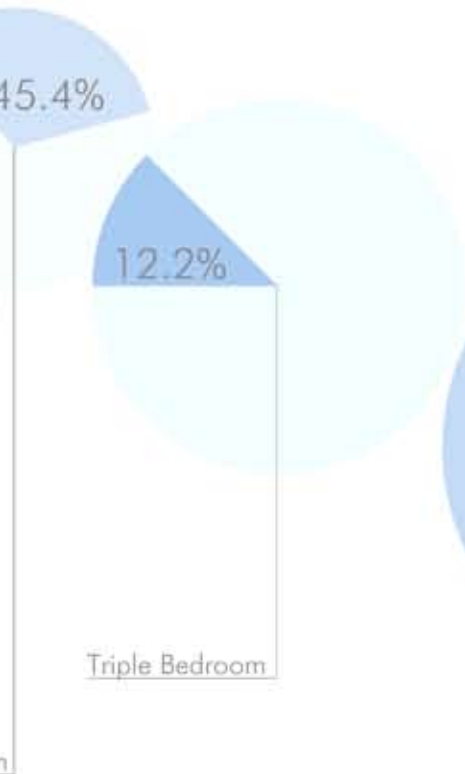
Site

Engagement

→ Privacy



The program was derived from a survey of 16 mental hospitals located around the United States. This survey recorded rooms, room sizes and the frequency at which they occurred. From this, a program was created that complements the initial intents of the project. The program includes psychiatric hospital staples such as patient rooms, nurse's stations and doctor's offices. Added to the program are outpatient spaces for a community in desperate need of mental health care. Just as important as the spaces included in the program, are the spaces the program does not include. Spaces typically deemed as "Quality of Life" spaces, spaces such as barber shops and cafes, have been removed in an effort to end the isolation between the facility and the community. Many of these services can be found directly across the street, not only allowing for convenience, but also an opportunity for patients to experience life outside the facility.



“Perhaps schizophrenia (madness) reveals something that comes to us in pieces, always transforming, constantly enough and everywhere.”

-Gilles Deleuze

DESIGN PROCESS

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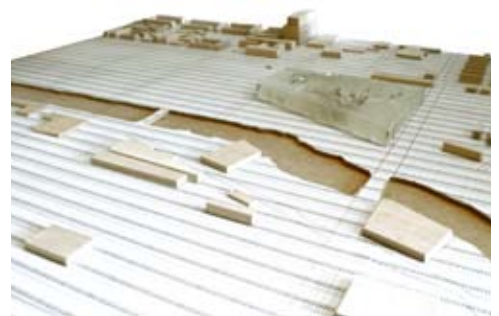


The disjointed, yet rigorous, design process began by asking the question, "what if two organizational systems were to collide?" One of these systems was very methodical, a matrix of 1" x 1" cubes set into a cube that measured 6" x 6," thus creating a perfect cube made of 36 smaller cubes. Into this logic, a second system of intuitive forms were interjected and the arrangement was cast in resin. The results indicate that one system must always conform to meet another system; there must be give and take. In this model, the intuitive space is carved from the space of the grid, yet still exists within the cubes overall frame.






This mode of thinking was then applied to the site. Careful attention was paid to the notion of the building's boundary and how it may affect the context.







As the exploration of space and organization continued, the notion of section began to gain importance over the conventional floor plan. The typical floor plan, cut three feet above the ground plane (as convention dictates), simply does not grant a tangible understanding of space. Rather, the floor plan can be understood as a diagram that contains prescribed spatial ideas. These recommendations have no permanence, as they may be changed if the user wishes to do so. However, when one designs in section, one is intimately linked to volume, natural light and proportion. These factors directly relate not only to the body, but how the body interacts with space and, consequently, how the space is used. It is for these reasons that this thesis will continue to explore space solely through sectional examinations.

The first sections analyzed the relationship between the observer and the observed. The results of these experiments were disastrous as many of the sections created recalled a prison like atmosphere. In order to change the dynamic between the observer and the observed, a different organizational principle was sought. This system was predicated on the notion of mental illness becoming the organizational principle. By recognizing the various spatial demands required when one suffers from mental illness, the concept of an oscillating space emerged. This space would have to simultaneously be one coherent space to allow for observation, while becoming fragmented in order to provide adequate privacy and ownership. It is no coincidence that in the book *Earth Moves: The Furnishing of Territories*, Bernard Cache discusses the notion of oscillation as “a kneading process that is close to that of thought itself”.¹

The initial studies into this kind of space centered around three conditions: the frequency of the oscillation, its interval and duration. In this first study model the frequency, interval and duration are equal to one another. Evoking the form of a wave, the resulting spatial condition is one of repetition and predictability. A distinct edge is formed between what could be imagined as the outside and the inside. Yet, this spatial condition risks becoming too repetitive, as it may morph into a familiar endless corridor. In this model, it would seem that the space has not responded to the unpredictability of mental illness. The space is static and unbroken; it is too coherent.

Opposite Page and Below: The first study model into the concept of spatial oscillation.

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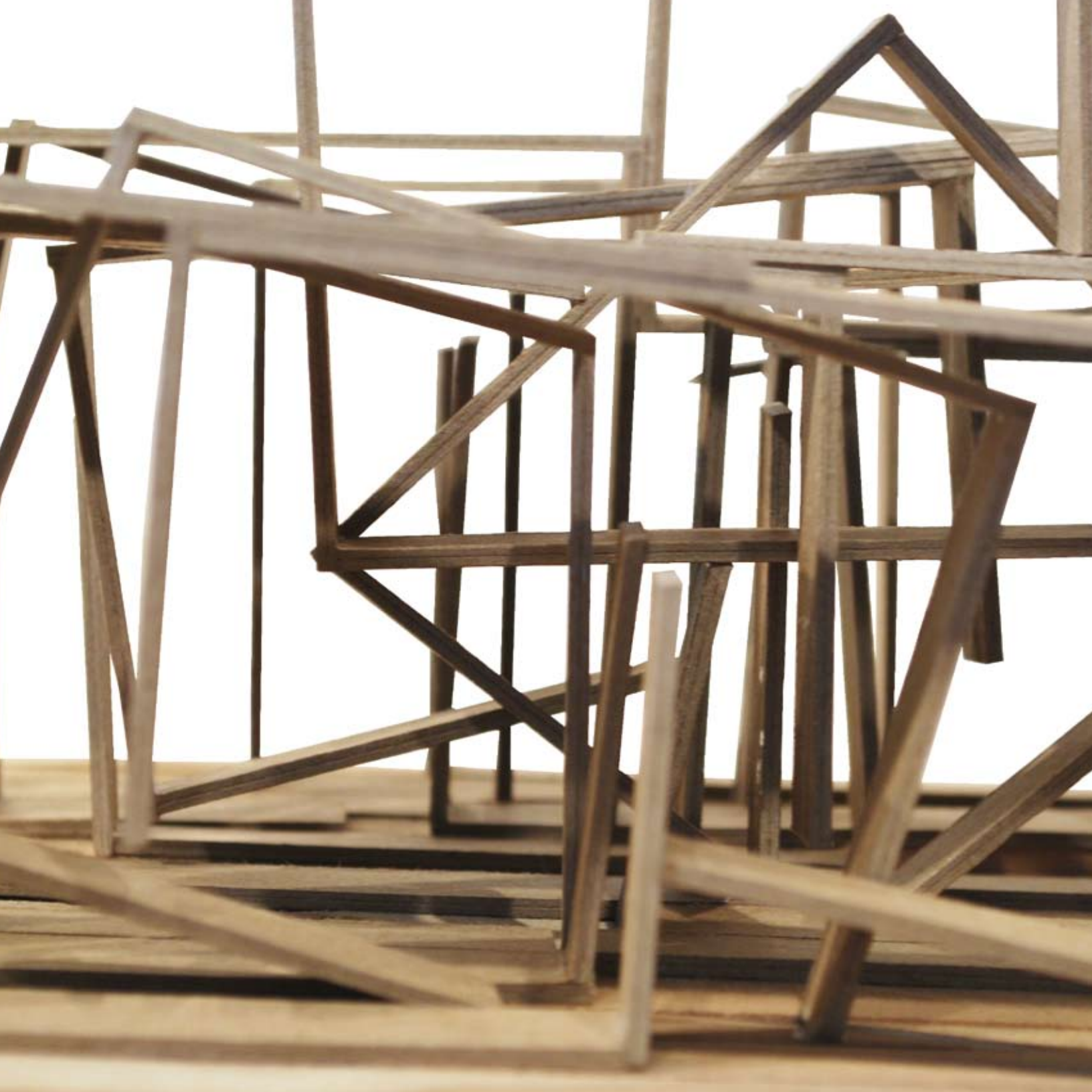
1. Bernard Cache, *Earth Moves: The Furnishing of Territories* (MIT Press, 1995), 117.

Opposite Page and Below: In this study model, the frequency, interval and duration of the oscillation have been adjusted.



In the second study model, the frequency, interval and duration of the oscillation have been altered randomly. The rigid coherence seen in the first model has been erased and the resulting space is one of slight fragmentation. The relationship between what might be considered the interior and the exterior has been dissolved in favor of smaller pockets of space. We can imagine these smaller spaces as areas where one could separate themselves from the group, while providing a visual connection to the larger space. Light leaks in through the discontinuity of the surfaces, allowing the sun to animate the space throughout the day. This furthers the inhabitant's connection with the outside world and reality.



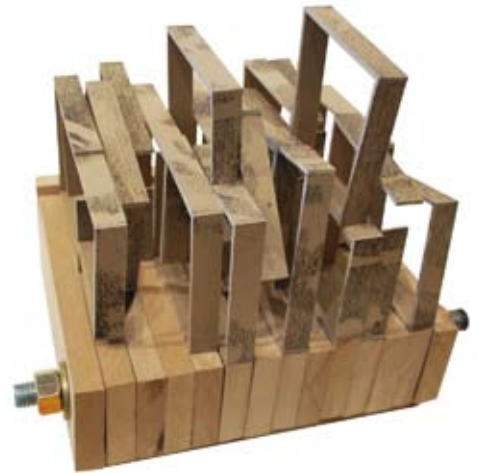


Opposite Page and Below: The notion of frequency, interval and duration have been pushed further.

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In the third study model the frequency, interval and duration of the space has been brought to its extreme. Lebbeus Woods has reasoned that space can only be constructed mentally.² Thus, space can only be described through a psychiatric vocabulary. In this spirit, the space of this study seems to be paranoid and overly fragmented. The lack of continuity between surfaces destroys the overarching space while creating an abundance of pocket spaces. In this example, the space becomes as disorienting as the proverbial endless hospital corridor.

2. Lebbeus Woods, The Question of Space, available at <http://lebbeuswoods.wordpress.com/2009/11/19/the-question-of-space/>.

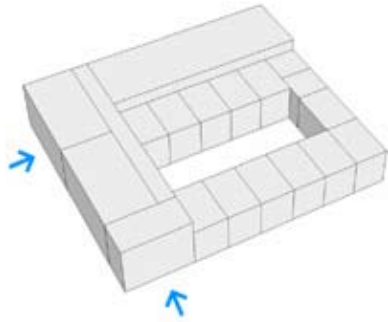


Below: Early massing study of patient room spatial adjacencies.

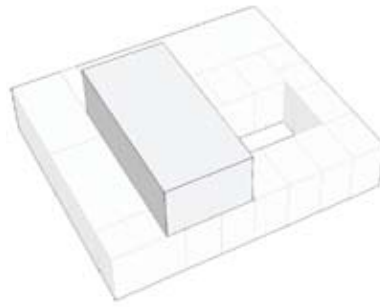
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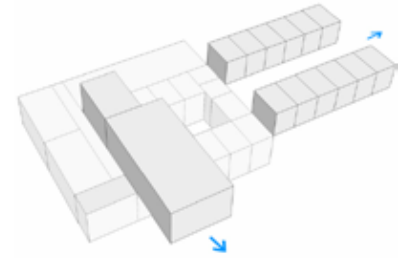
As the design progressed, the programmed spaces began to take on greater significance. The first iteration of these spaces consisted of diagrammatic and foam core studies which searched for a proper hierarchy of spaces. In this example, the entry, gallery and outpatient spaces are located on the ground level of the facility. On top of these spaces are the minimum security ward and the cantilevered occupational therapy room. Landscape is merged with the second level, providing a strong connection with nature as well as private areas for recreation. The carefully placed third and fourth floors provide private balconies for the medium and maximum security ward. The arrangement of this initial scheme is severely logical and provides for no flexibility, which reinforces the current state of mental health care. It is for these reasons that this plan was abandoned and new strategies were interrogated.



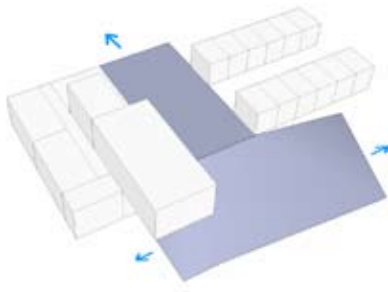
Main Entrances



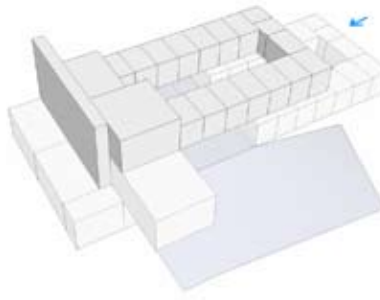
Occupational Therapy



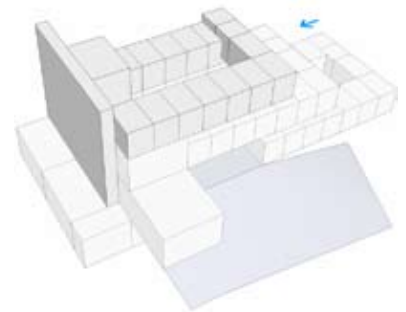
Minimum Security Ward



Introduction of the Landscape



Medium Security Ward



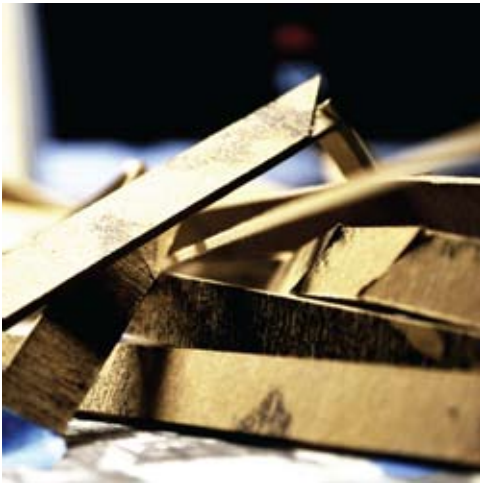
Maximum Security Ward

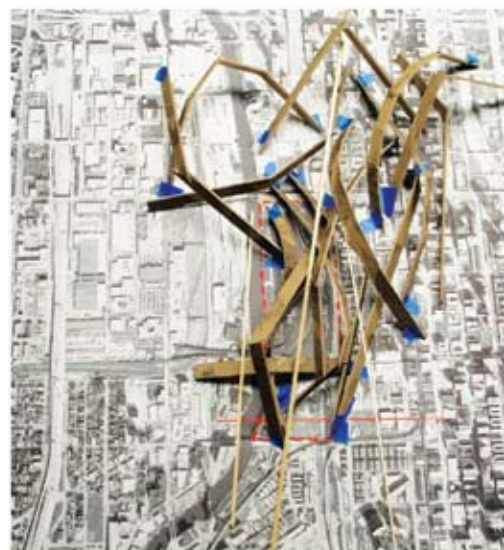
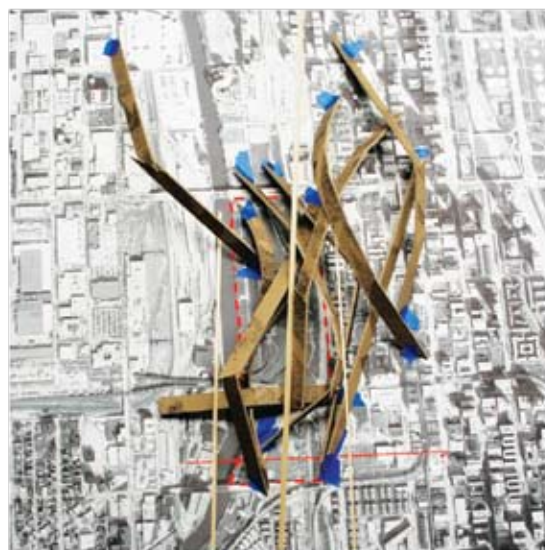
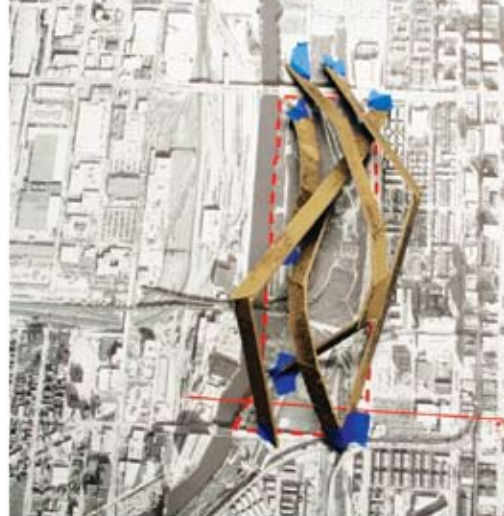
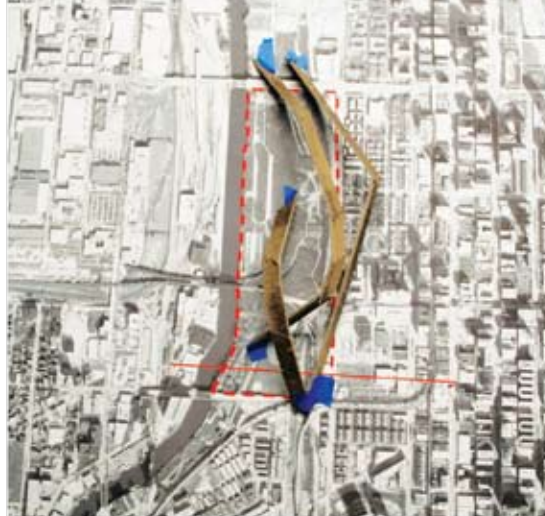
As a direct reaction to the previous scheme, the next study challenges the rigidity of the city as well as the socioeconomic engine that drives mental illness. Through this scheme, the psychiatric hospital becomes a piece of infrastructure indiscernible from the city. The building becomes connective tissue that latches on to the very institutions that demand its creation.

The design questions normative issues of scale as it literally weaves itself into the urban fabric. In these spaces, architecture is no longer static; the building expands and contracts with changes in social structure and cultural stigmas. An oscillating section provides for ever shifting light patterns, views and ground planes. In this vectored system, space becomes something to be colonized by the inhabitants. As infrastructure, the building takes a dominant role in the city's landscape, forming strong relationships with the rest of society.

Although radical in scale and use, this design leaves much to be desired. The lack of programming and consideration for psychiatric care conventions seems to offer no solution to the problem. However, the idea of a space territorialized based on patient comfort, brings about a level of autonomy not previously seen in this building type.

Opposite Page and Below: The psychiatric ward as infrastructure.









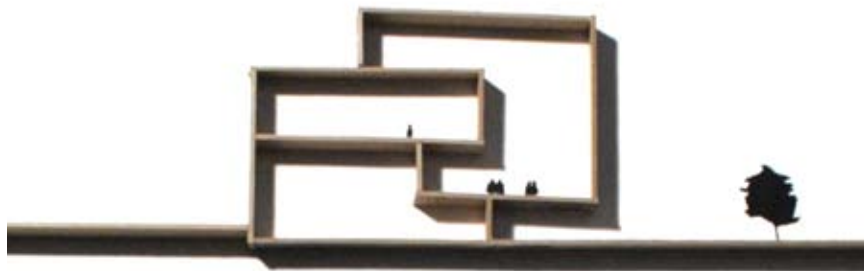
Stage 1 of growth.



Stage 2 of growth.



Stage 3 of growth.



The idea of spatial territorialization shifted the design trajectory from formal approaches to a more subdued sectional approach. With the site as the generator, nine unconnected sections were contrived. Each section considers how natural light enters spaces and how the building might engage the park to the east while remaining sensitive to issues such as human scale and context.

Opposite Page: Sectional studies exploring spatial relationships with the site.







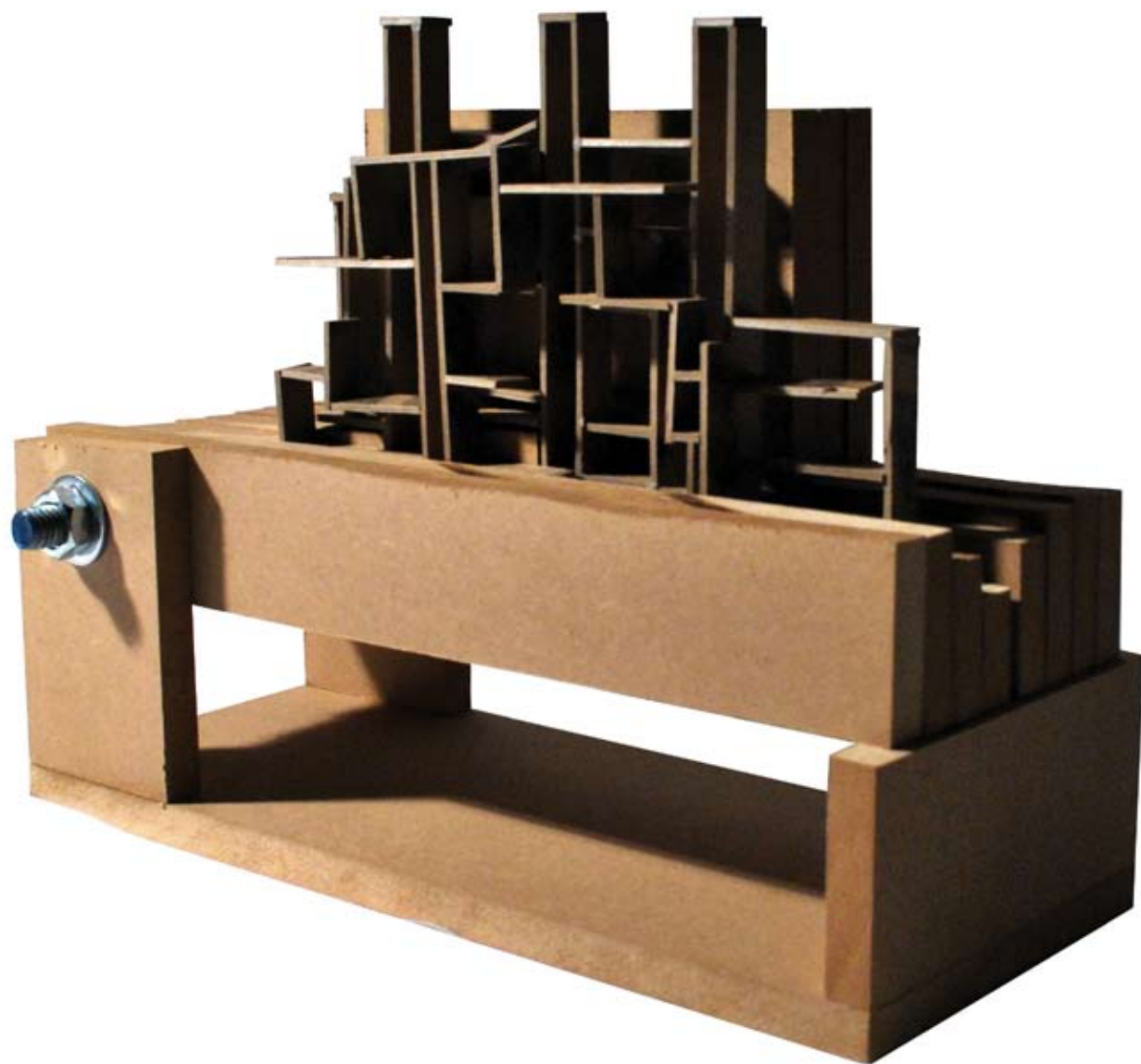
These sections were then combined to create deep spaces and shallow spaces. Like the prior scheme, the facility becomes something to be colonized by its occupants. Sections were taken from the north and south as well as the east and west, forming a variety of spatial conditions in plan as well as section. In this building, floor planes shift with walls as light leaks in from all sides; again the structure becomes an organism. A hinged model allows for the spaces to be continually shuffled while searching for the most appropriate arrangement.

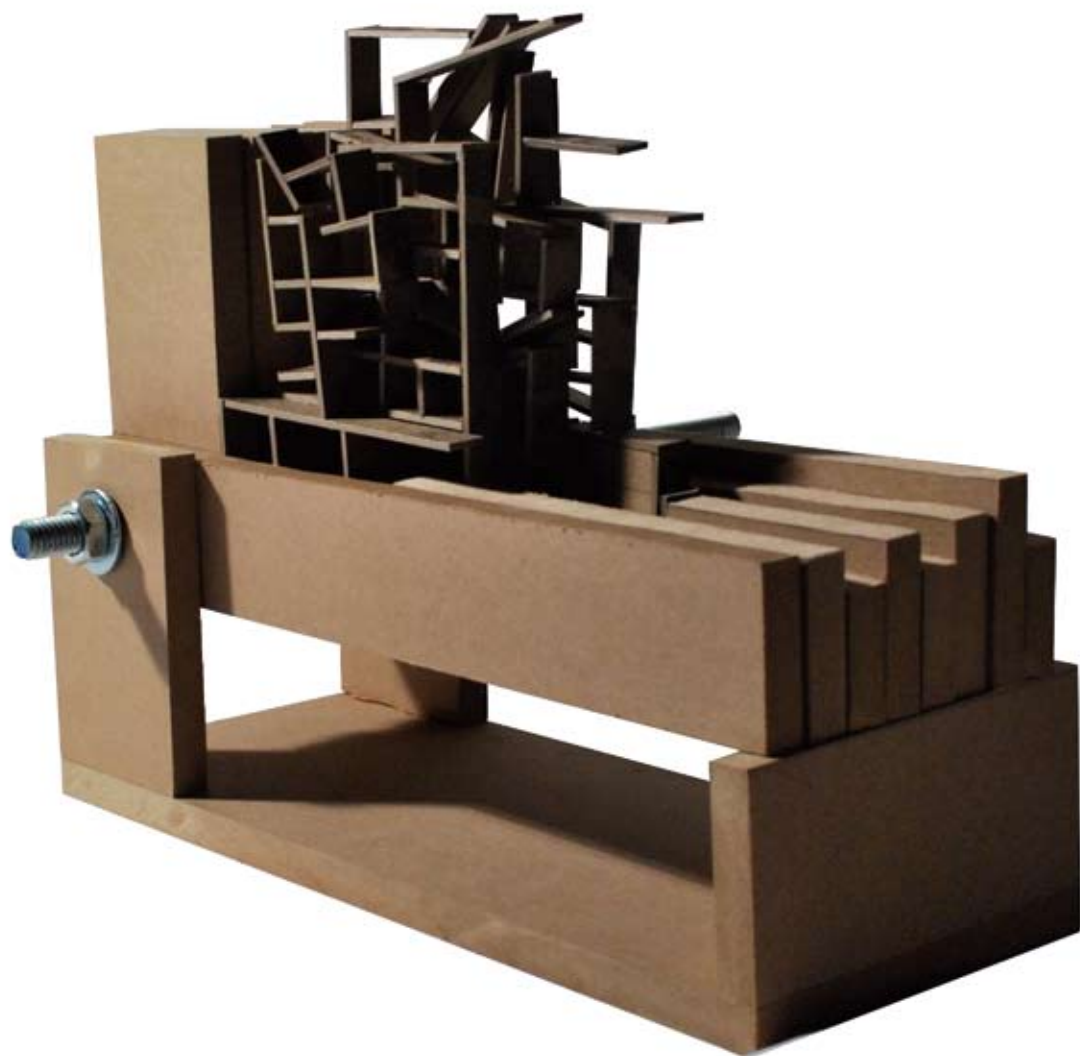
Opposite Page and Below: Combined sectional studies.

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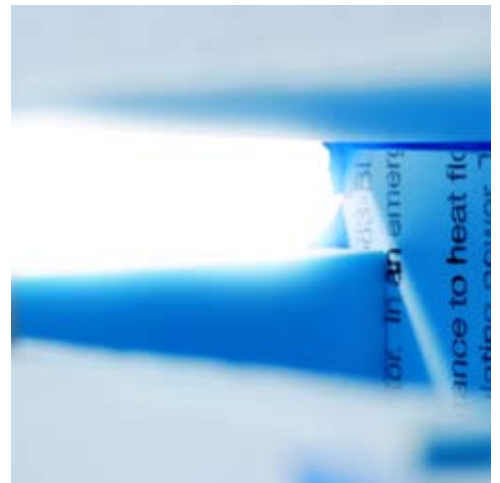


"Space is essentially a mental construct. We imagine space to be there, even if we experience it as a void, an absence we cannot perceive... We must think space into existence."

-Lebbeus Woods

SPATIAL EXPLORATIONS

95





Up to this point, the actual spaces of habitation had not been thoroughly studied. Working at a large scale, each item in the program was thoroughly interrogated in an effort to derive the correct spatial proportions of natural light and volume. The goal is for the architecture to dissolve and one to be left with the simple elegance of the space, natural light and materials.

This first example is of the isolation room, which is used when a patient has become extremely agitated and must be separated from others. In this profound space, natural light plays a key role. A single oculus located at the south west edge of the space permits direct light to enter from sun rise to sun set, year round. Circular windows on the north and west facades provide small glimpses into the surrounding landscapes, while the thickness of the wall diffuses the entering light. The proportions of the space have been fine tuned to act as a clock. While the patient is confined in the space, they are able to trace the path of the sun across the circular windows. Each window aligns with a specific hour of the day depending on the time of year, allowing one to remain oriented.

The study between the sun and natural light continues into the dayroom, perhaps the most important space in facility. This is the space in which patients spend most of the day engaging in communal therapy, watching television, playing board games and talking with others. A large light cannon dominates this space, illuminating a sunken square located in the center. In a typical psychiatric hospital the dayroom is simply a large space connected to the nurse station, allowing for observational views but destroying privacy. This dayroom has been separated into three distinct zones by virtue of ground plane manipulation. Each zone has its own purpose ranging from group meeting and free time to privacy and isolation. The fenestration of the day room ensures an appropriate amount of natural lighting for each activity throughout the day. For example, the communal portion of the dayroom is lit throughout the morning hours when group therapy would be underway. In the afternoon, when patients may partake in free time, the fenestration of the west wall illuminates the entire floor, suggesting the entire space for use.



Opposite Page, Above and Below: Early spatial studies of the isolation space.



In the occupational therapy room, layered space provides patients the opportunity to connect to one another as they engage in a variety of recreational activities and experiences. Offset floors allow natural light to wash the walls in sensitive spaces such as the art and music rooms. Second story curtain walls permit views into the landscape for those who are undergoing psychical therapy on the upper levels.





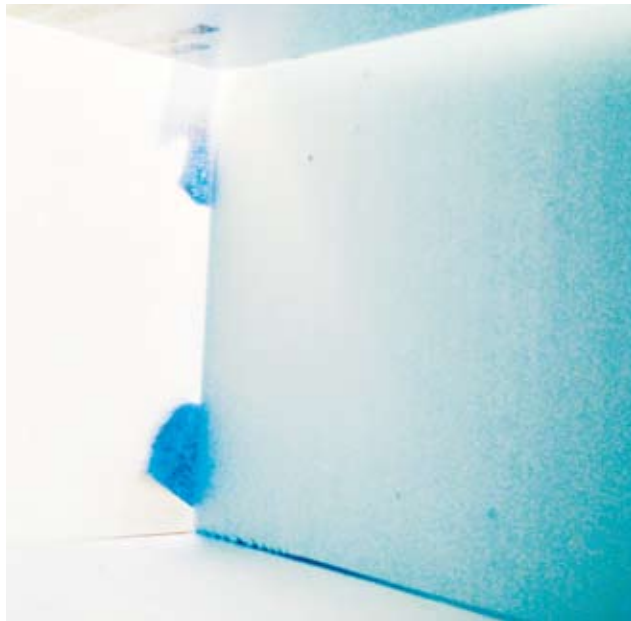
Below: Occupational therapy room study model.



Below: Patient room study model.



Below: Outpatient room study model.



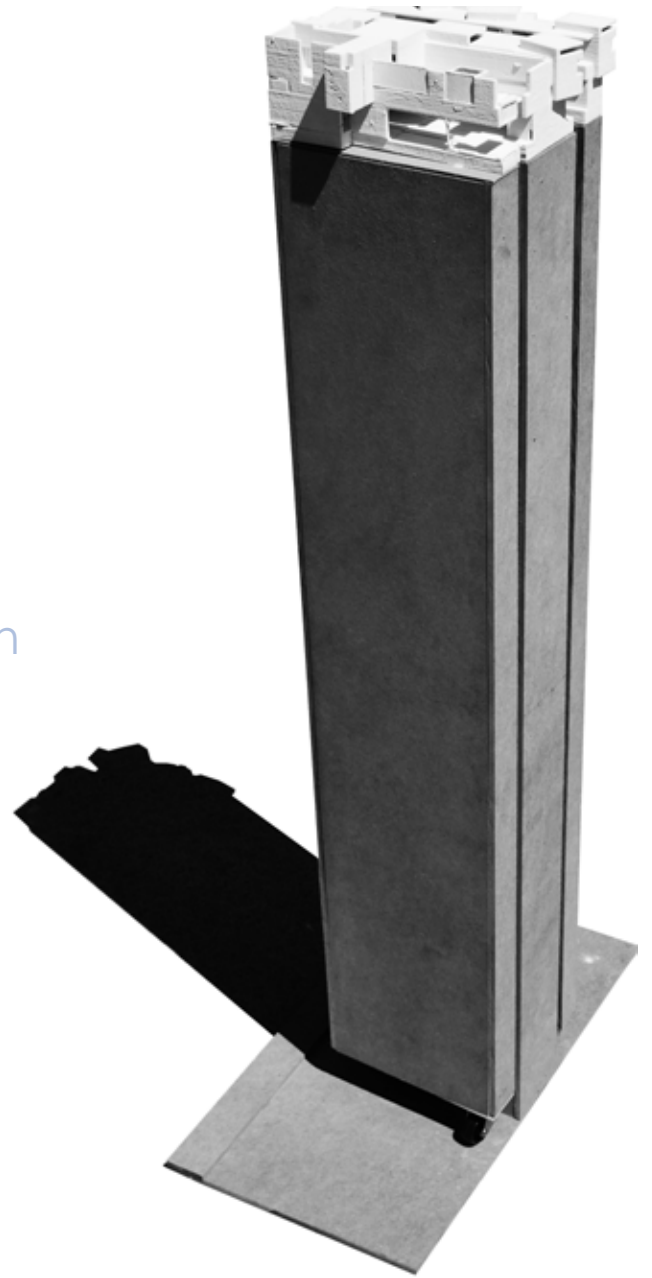
Below: Isolation room study model.



"...in order to see the world and grasp it as paradoxical, we must break with our familiar acceptance of it...."

-Merleau-Ponty

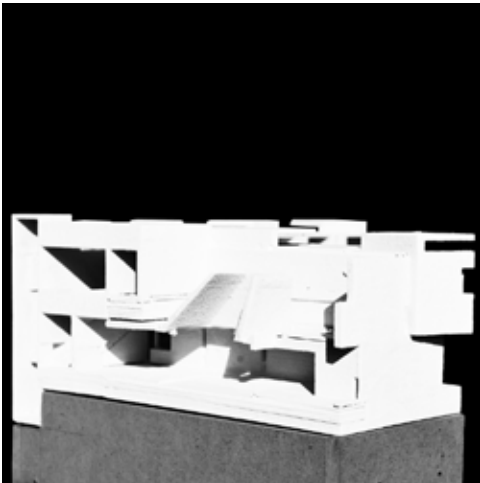
Organizational Implementation



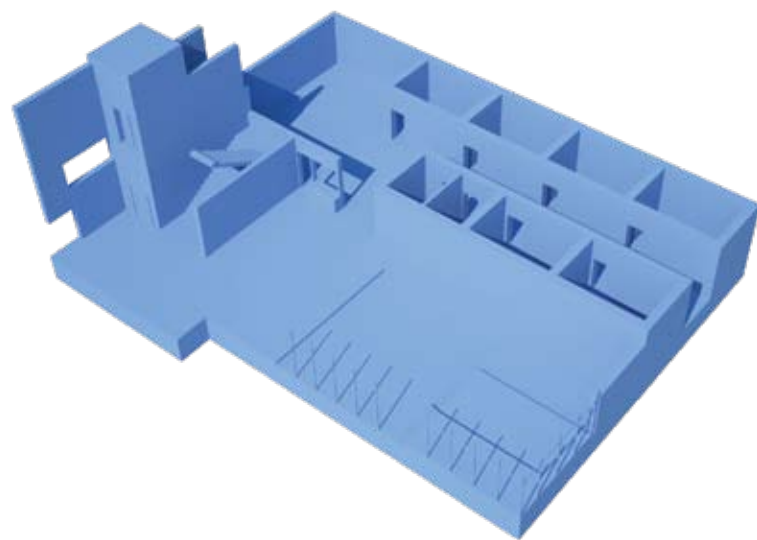
Opposite Page: The first level of the ward contains the dayroom, offices and a conference room.

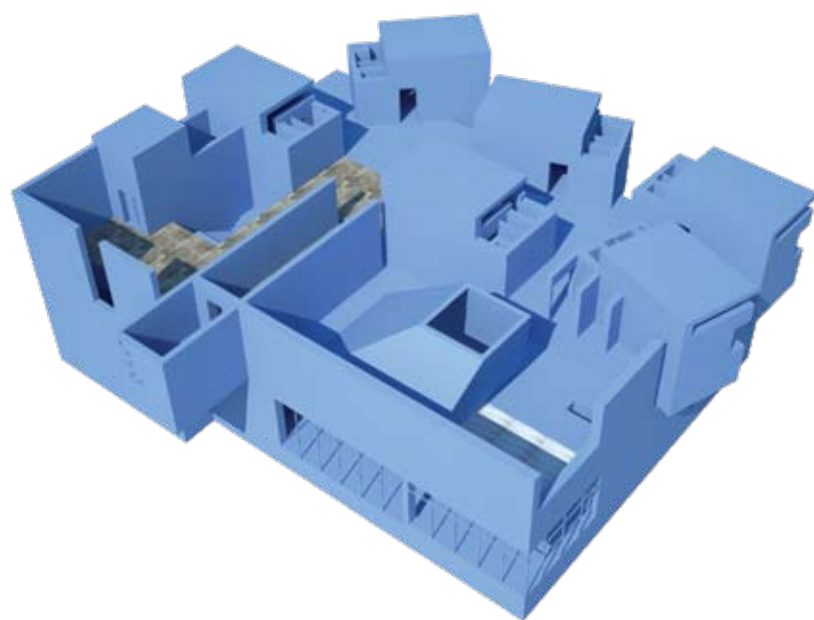
Below: In this sectional model, one sees the large light cannon that provides natural light into the dayroom.

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The next step in the design process required the marriage of the spaces with the original organizational concept to create a psychiatric ward. Taking design cues from earlier precedent studies, the ward is layered across two levels with loud spaces on the bottom and quieter spaces on top. This separation ensures that patients who are easily aroused receive adequate sound insulation from those who are louder. On the lower level, one finds the dayroom as well as doctor and nurse offices, conference rooms and charting rooms. The nurse's station has been divorced from the dayroom proper, ensuring nurse-patient interaction versus nurse-patient observation.



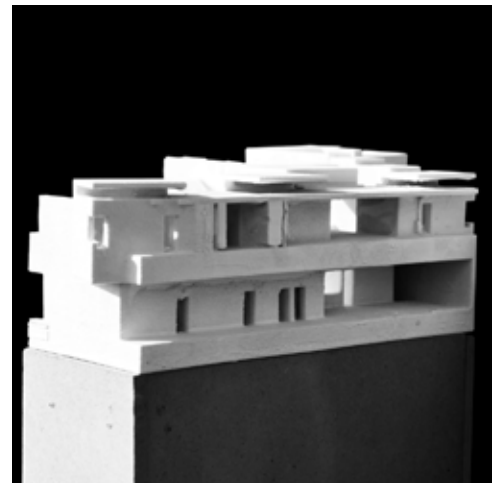


On the second level of the ward, one finds the patient rooms as well as the isolation room. By scattering the patient rooms, smaller group and isolation spaces are created, allowing for areas where patients might have alone time with family members. The walk to the isolation room becomes dramatized through the use of a long corridor ending in a small cantilever which permits light to enter the space from all sides.

Opposite Page: The second level of the ward contains quieter spaces.

Below: A sectional model revealing the layering of doctor's offices and patient rooms.

107



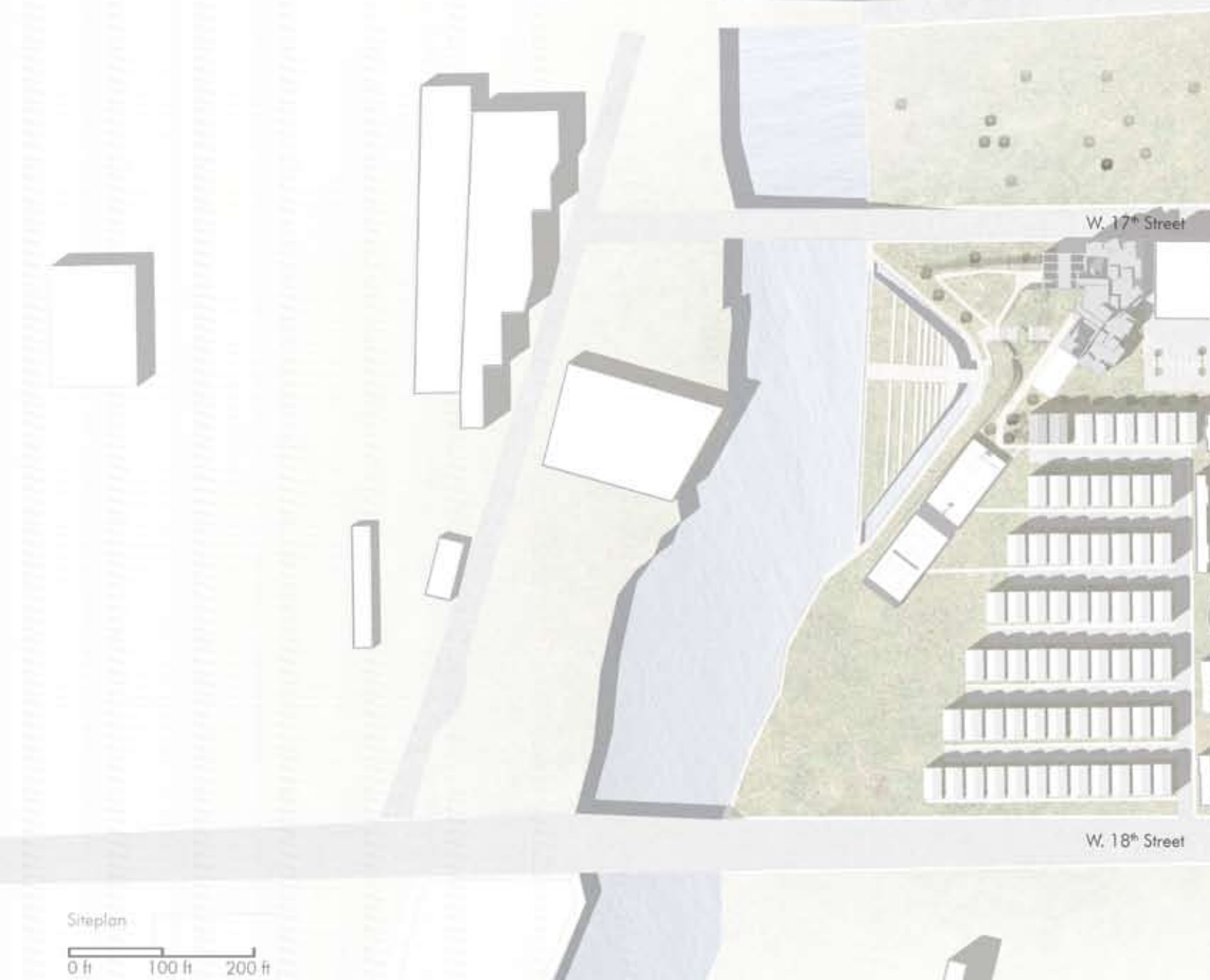
"Philosophy, art, and science are not the mental objects of an objectified brain but the three aspects under which the brain becomes subject."

-Gilles Deleuze

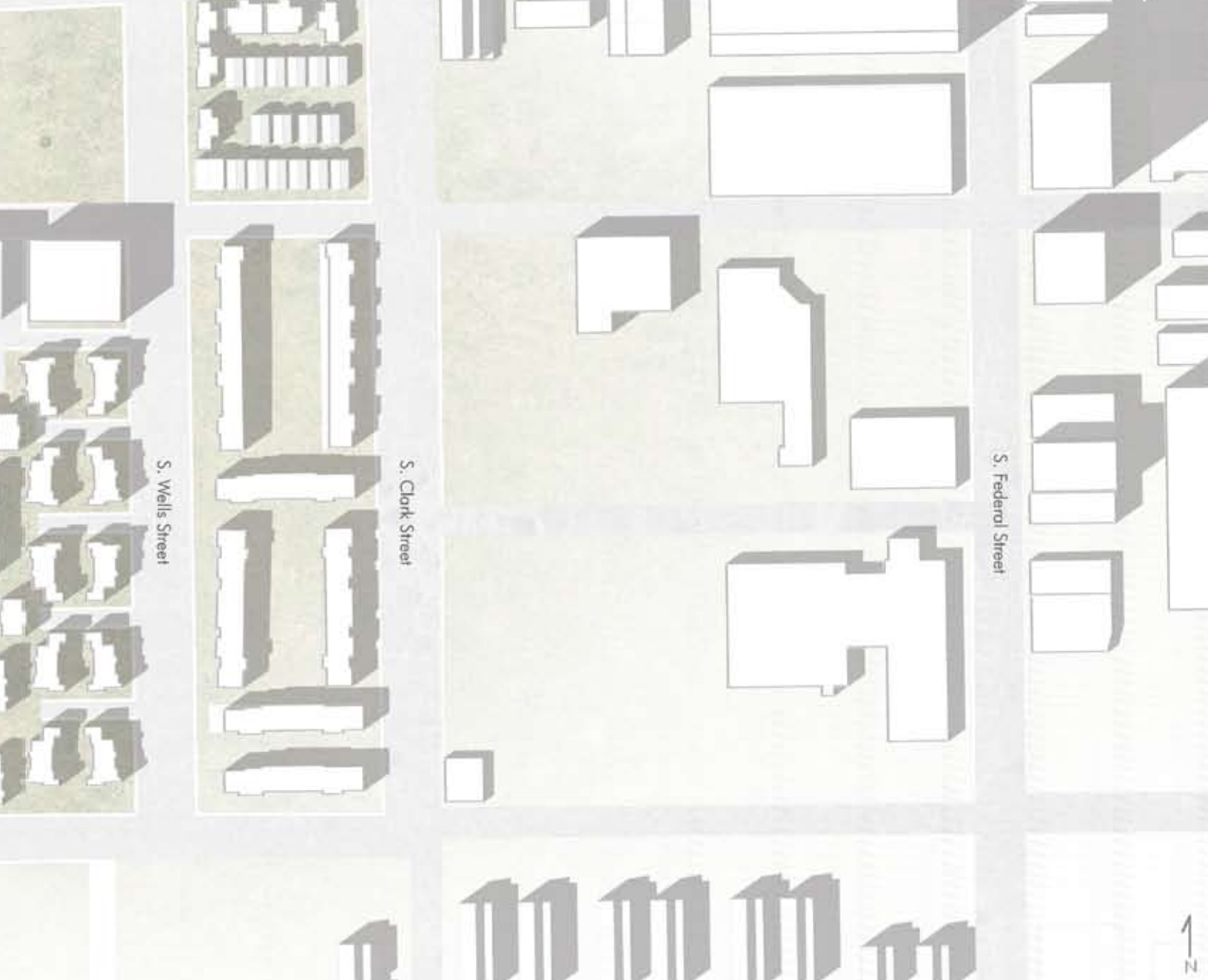
Final Design

109

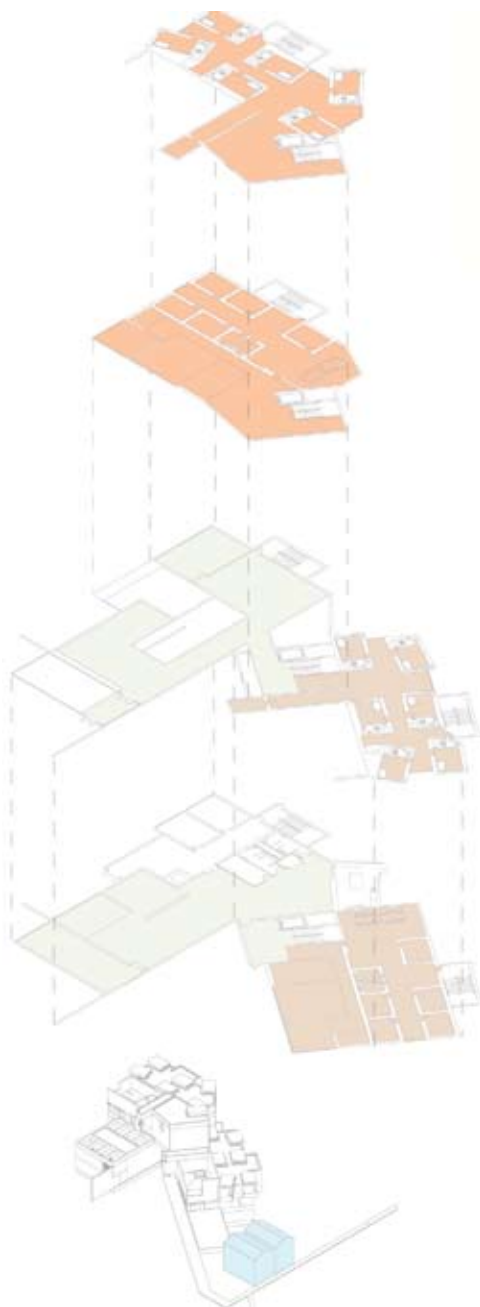




The final design synthesizes these explorations into a continuous patient experience. The building engages the site and the river walk through an active landscape that seeks to create a unique park experience. By aligning the building with 17th street and incorporating a bus stop into the façade, the walk-ability of the area is reinforced.



1
N



Ward Distribution

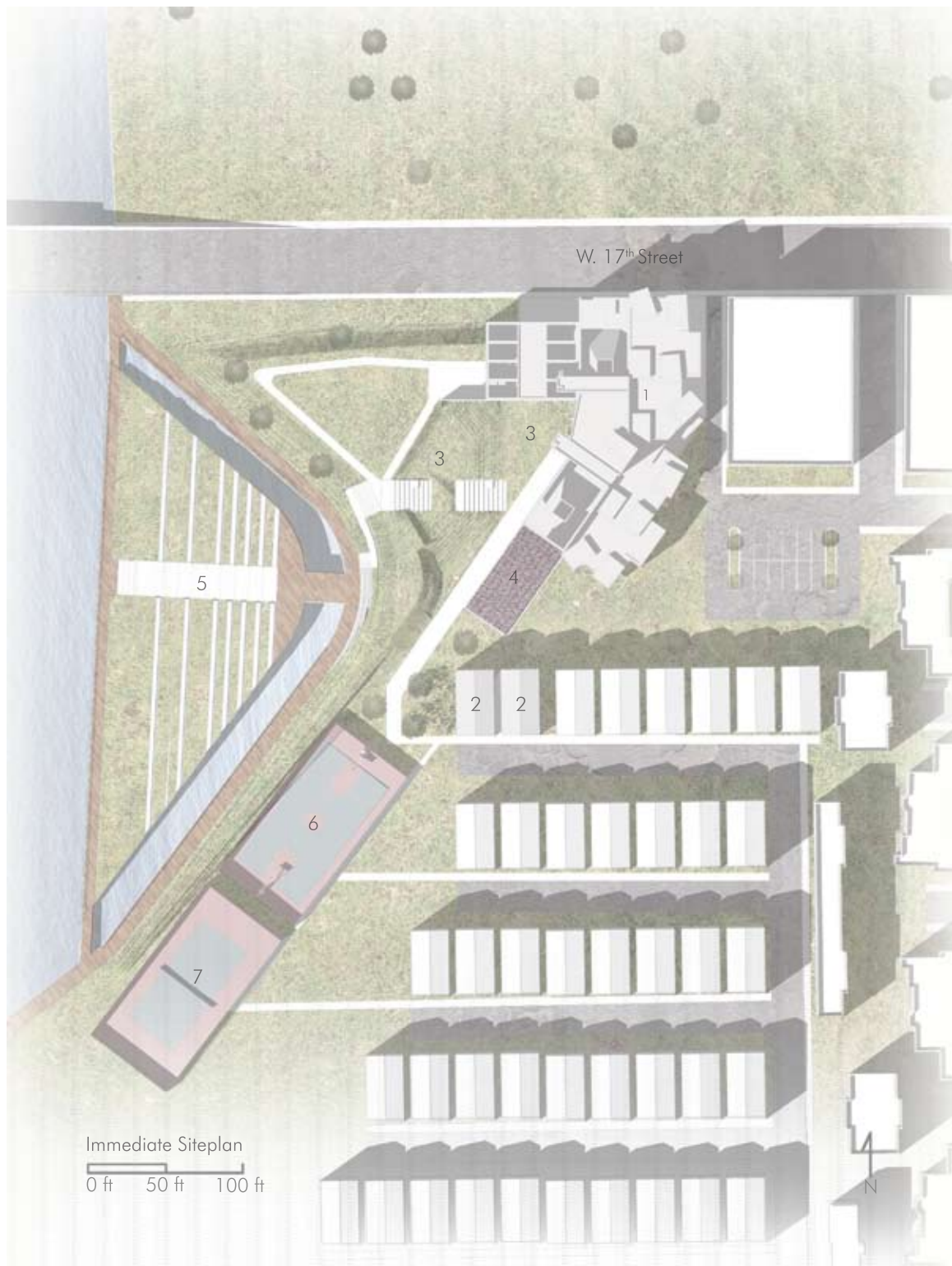
- Maximum Security
- Medium Security
- Minimum Security
- Common Spaces

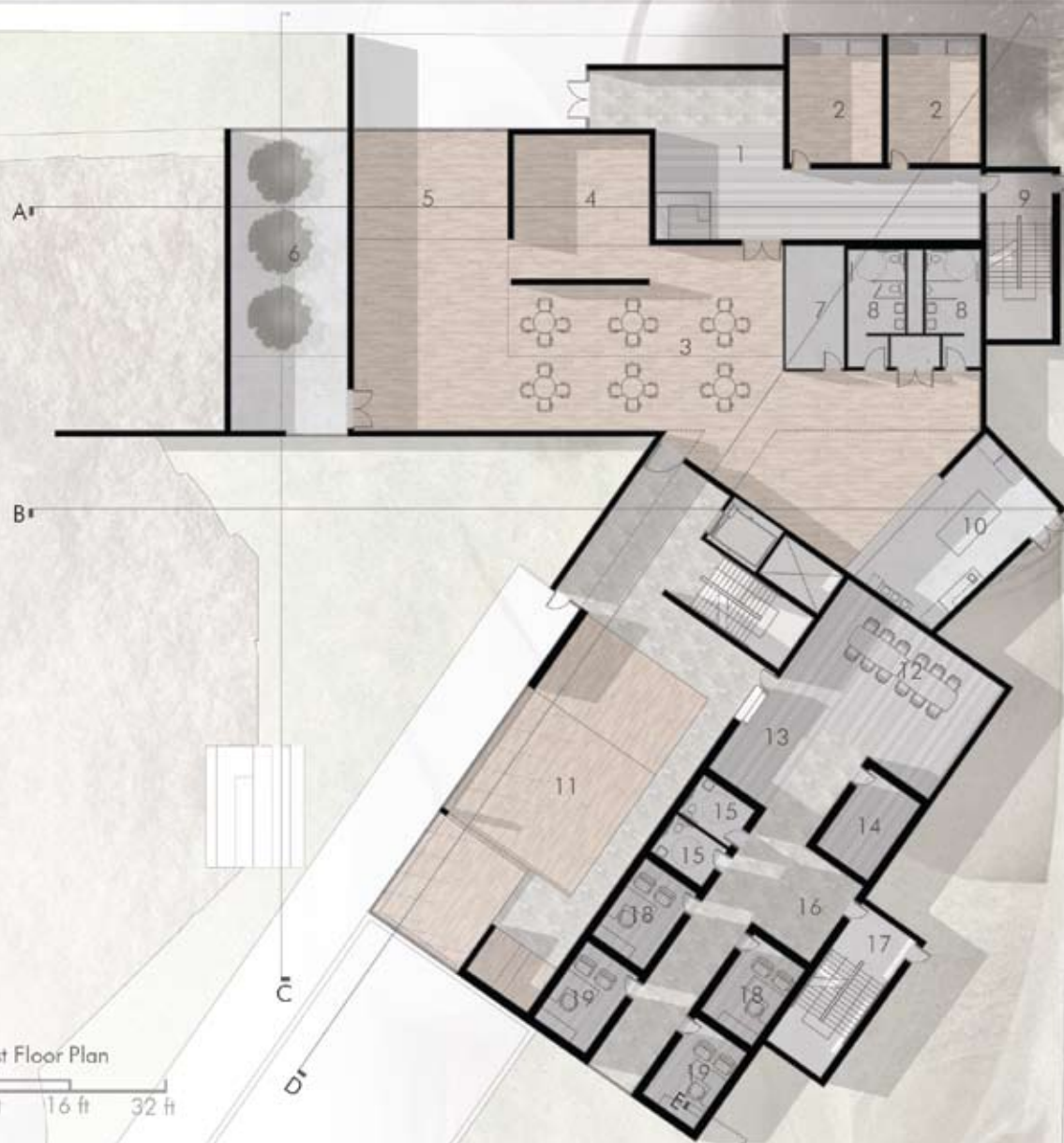
Site Distribution

1. Building
2. Minimum Ward
3. Private Courtyard
4. Vegetable Garden
5. River Walk Garden
6. Basketball Court
7. Tennis Court

A small creek has been used to separate the facility from the river walk. The resulting island of gardens becomes a unique pedestrian experience that will be maintained by patients of the psychiatric hospital as a component of occupational therapy. The landscape rises to create an edge between the public park and the private courtyard formed by the plateau. The edge of this landscape simultaneously blocks views while creating outdoor rooms for patients to comfortably enjoy. Recreational courts are located to the south side of the site, allowing the neighboring community to utilize the amenities when not being used by the hospital.

The minimum security ward has been injected into the neighboring community and mimicking a halfway house arrangement. The homes used for this ward are the four-bedroom town homes proposed by the developer for this site. This ensures that the patient gains a real world experience, while still reporting to the hospital daily for care.





First Floor Plan

0 ft 16 ft 32 ft

N

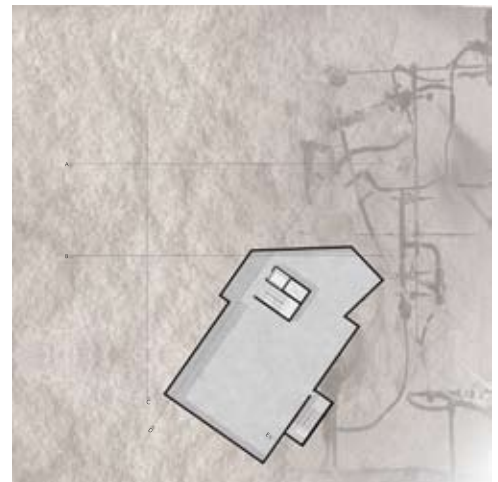
1. Lobby/ Waiting Room
2. Outpatient Room
3. Occupational Therapy
4. Music Room
5. Art Room
6. Sun Room
7. Storage
8. Toilet Room
9. Egress Stair
- 10 Kitchen
11. Medium Security Day Room
12. Conference Room
13. Nurse Station
14. Storage Room
15. Toilet Room
16. Break Area
17. Egress Stair
18. Nurse Office
19. Doctor's Office

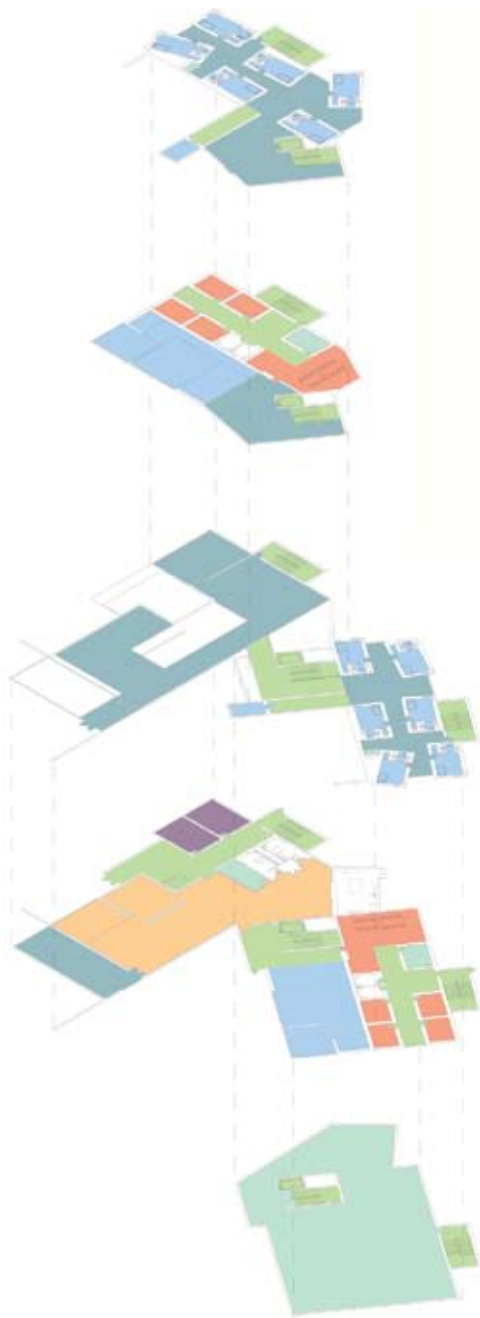
Below: The basement of the facility contains mechanical as well as storage space.

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The plan of the facility plays out as if it were a game of chess. Spaces of oscillation provide patients the opportunity to territorialize an adequate amount of space while remaining in sight of the facilitators. The first floor separates public space from private space by virtue of the semi-private occupational therapy room. The occupational therapy space remains continuous, while niches carved out for programmatic elements ensure privacy without isolation.

The medium security ward is located on the south end of the building, behind a lockable door. The day room is located on the west side, ensuring that the patients receive afternoon sunlight and have views to the outdoors. A small open space on the southeast side of the dayroom allows patients to withdraw themselves if needed, while differentiation in floor levels create a variety of zones to be colonized.



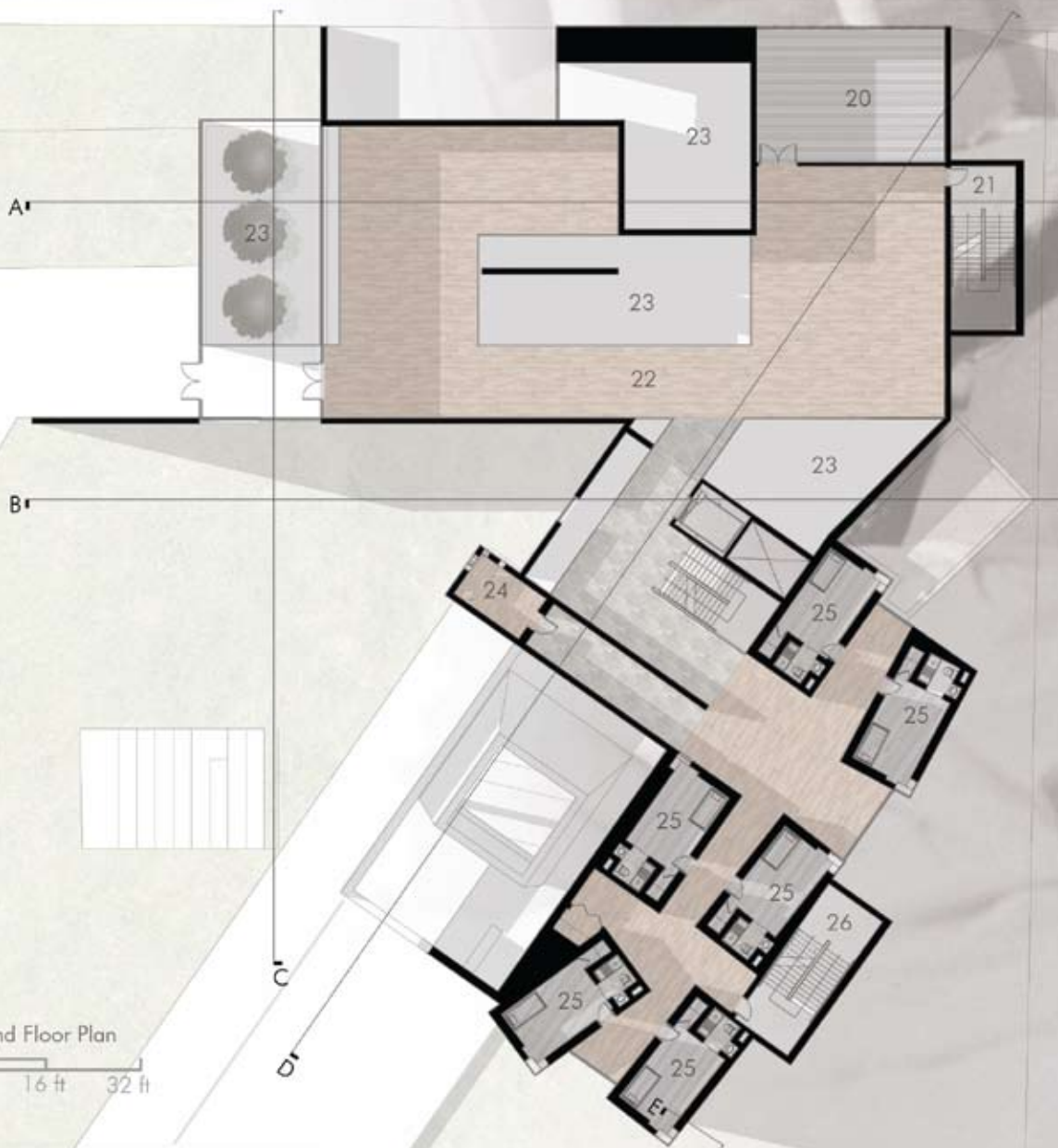
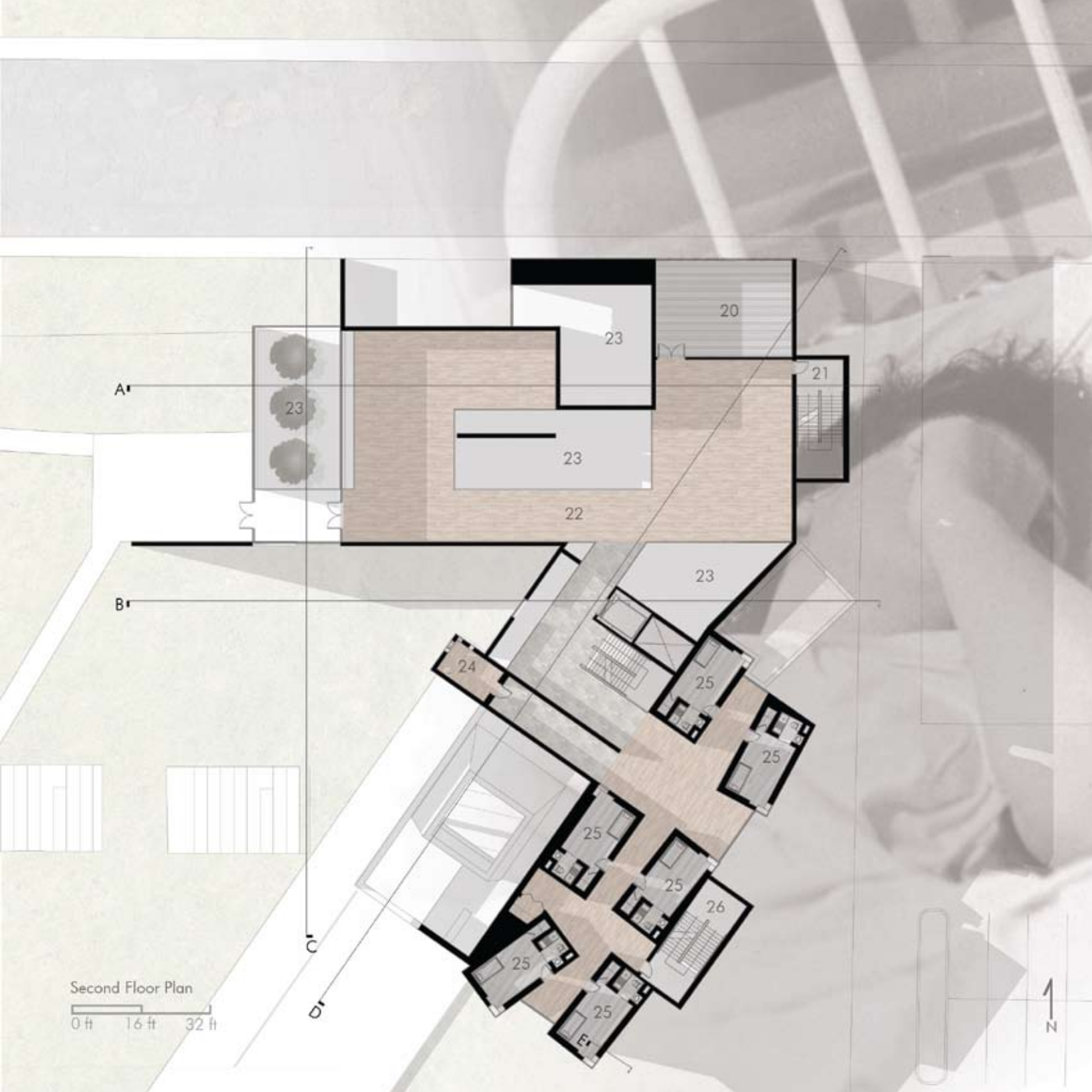


Program Distribution

■	Patient Space	20. Classroom
■	Gathering Space	21. Egress Stair
■	Circulation Space	22. Occupational Therapy
■	Facilitator Space	23. Open to Below
■	Public Space	24. Isolation Room
■	Patient Public Overl	25. Medium Security Patient Room
■	Storage Space	26. Egress Stair

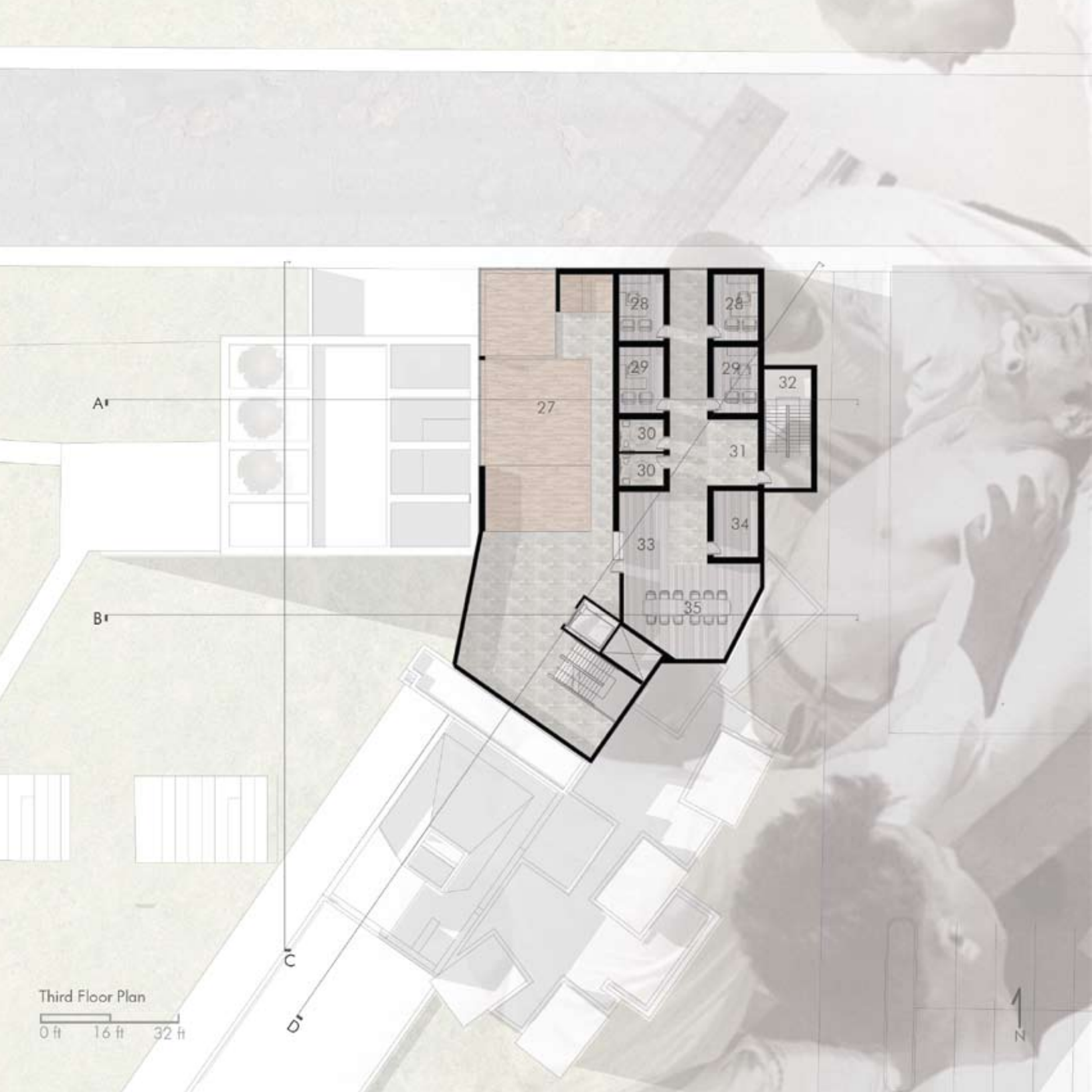
The second level contains the private spaces of occupational therapy that would be open solely to those staying at the facility. This portion of therapy includes workout rooms, a classroom and secluded spaces complete with an indoor tree garden for patients to use on rainy or winter days. The central portion of the space has been carved out to ensure a connection with those below.

The upper level of the medium security ward includes six patient rooms and an isolation room. The loose layout of the patient rooms ensures privacy by destroying linear perspective. The layout also permits light to flow into quieter spaces while allowing each room to have an inoperable window (with the exception of one for those patients who should not have access to a window).



Second Floor Plan

0 ft 16 ft 32 ft



A*

B*

C

D*

27

28

28

29

29

32

30

31

30

34

33

35

Third Floor Plan

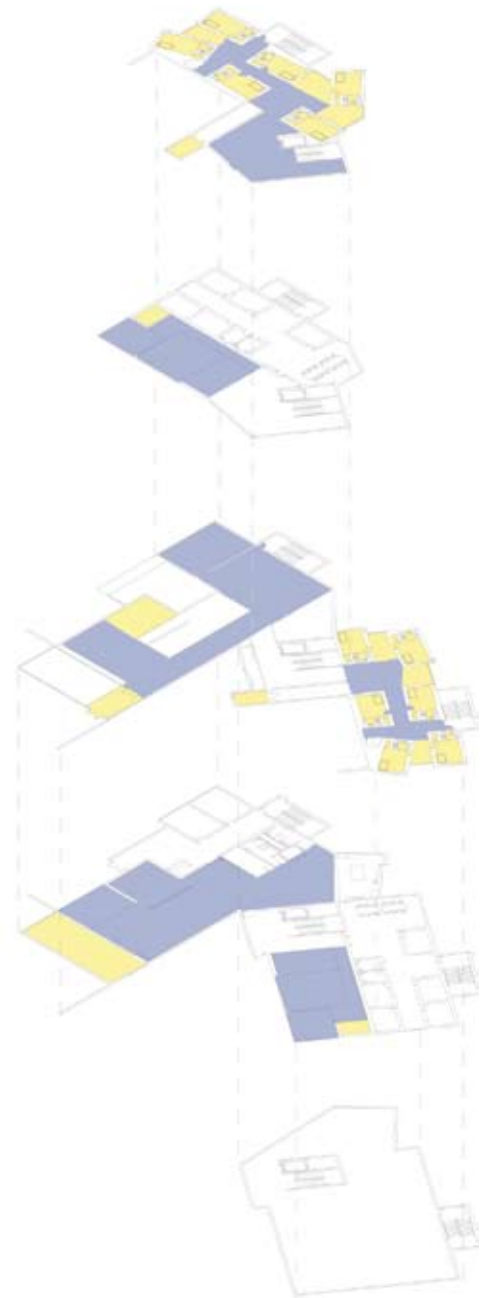
0 ft 16 ft 32 ft

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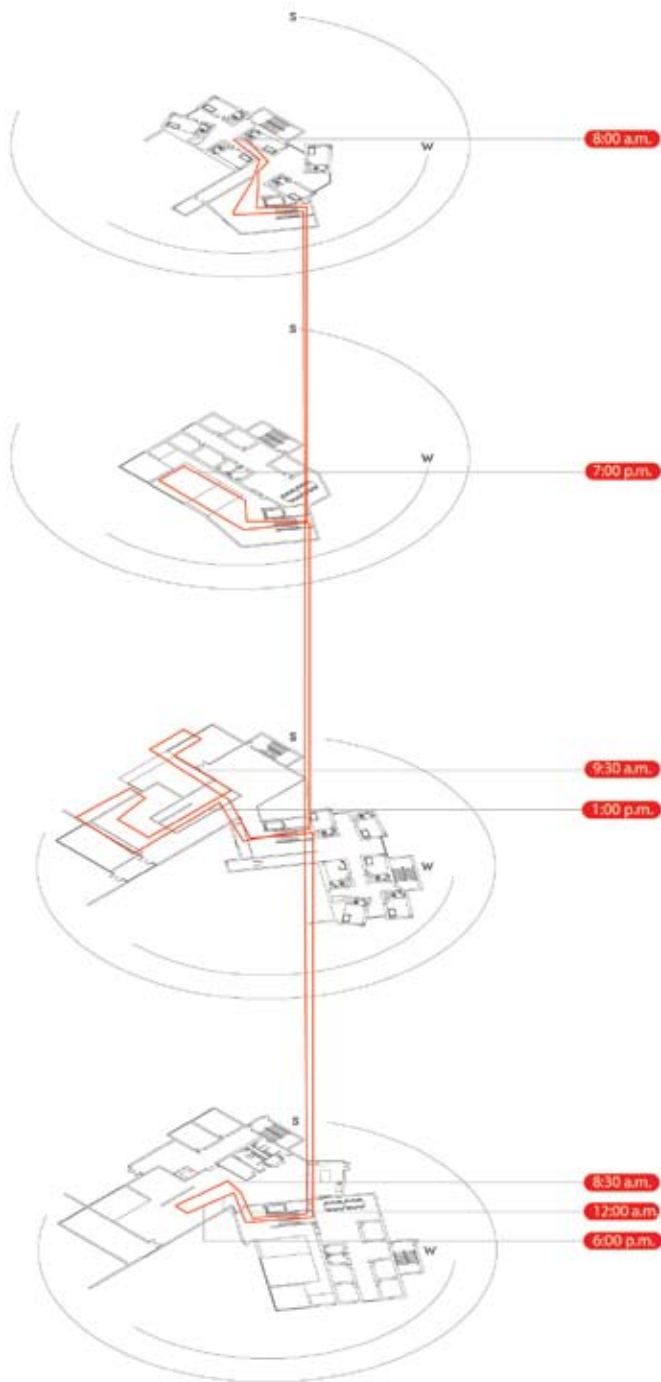
Private Space Distribution

- 27. Maximum Security Day Room
- 28. Doctor's Office
- 29. Nurse Office
- 30. Toilet Room
- 31. Break Area
- 32. Egress Stair
- 33. Storage
- 34. Nurse Station
- 35. Conference Room

- Private Space
- Group Space

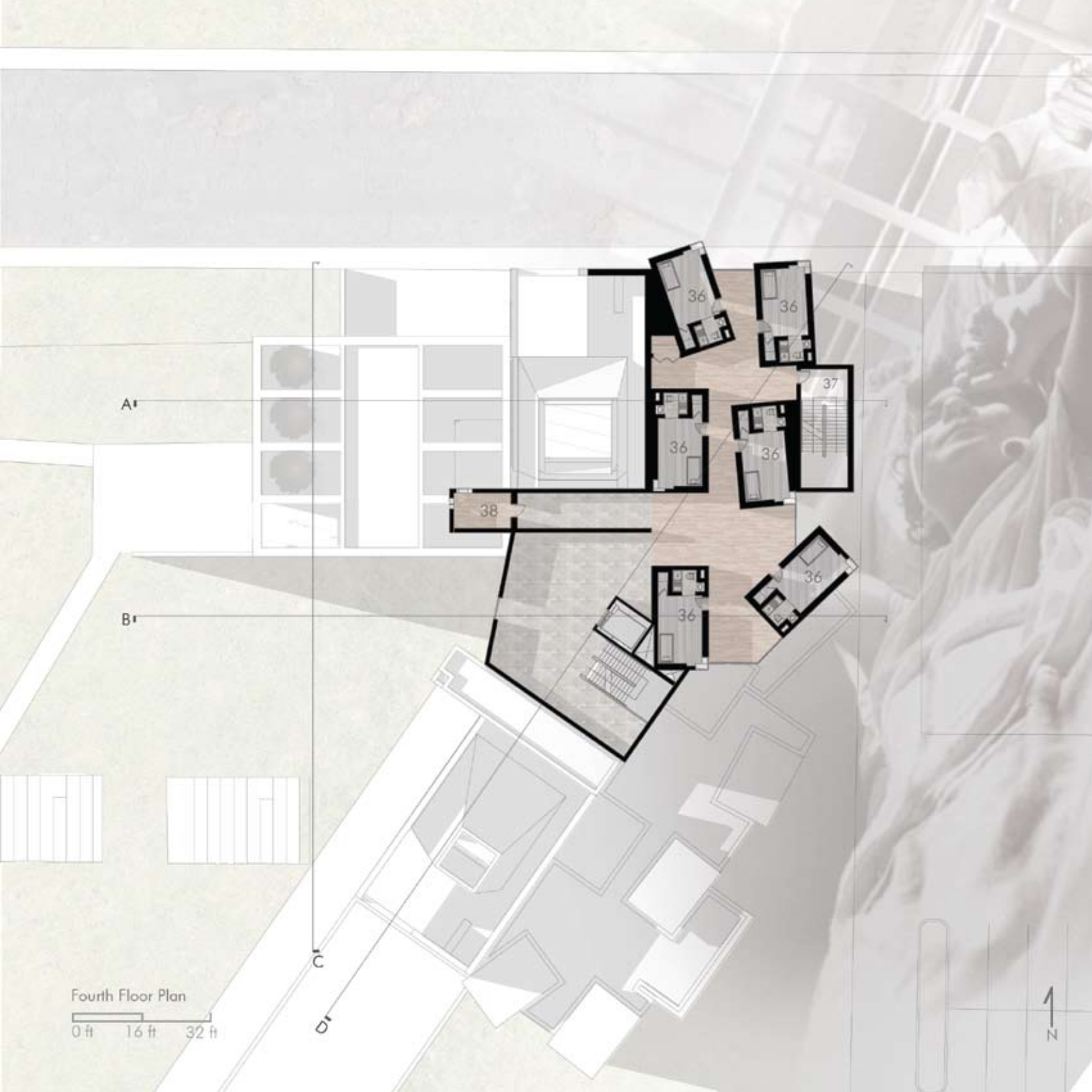


The third and fourth levels of the facility contain the maximum security ward. The ward design is similar to the medium security ward in design but, due to its elevation, the patients retain a sense of privacy and natural light.



36. Maximum Security Patient Room
 37. Egress Stair
 38. Isolation Room

Left: Potential patient routine as choreographed with the path of the sun.



A

B

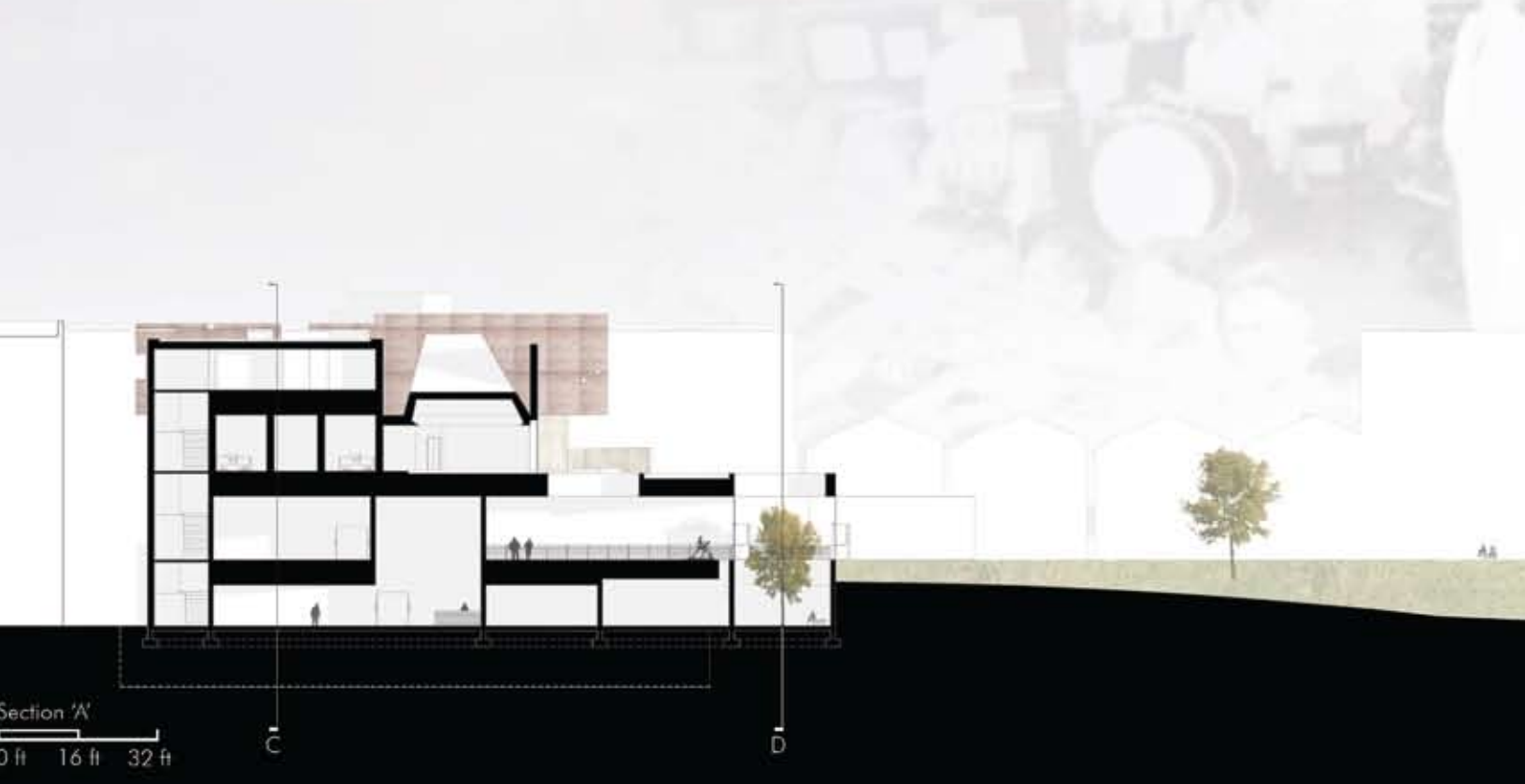
C

D

Fourth Floor Plan

0 ft 16 ft 32 ft

1
N



The concept of oscillation is also prevalent in section. Spaces expand and contract depending on use, natural lighting and privacy level. The narrow floor plate of the building supports the passage of light into the innermost spaces. The landscape folds to create private and public spaces, separating the facility from the public without coldness of a fence.

Opposite Page: Section 'B.'





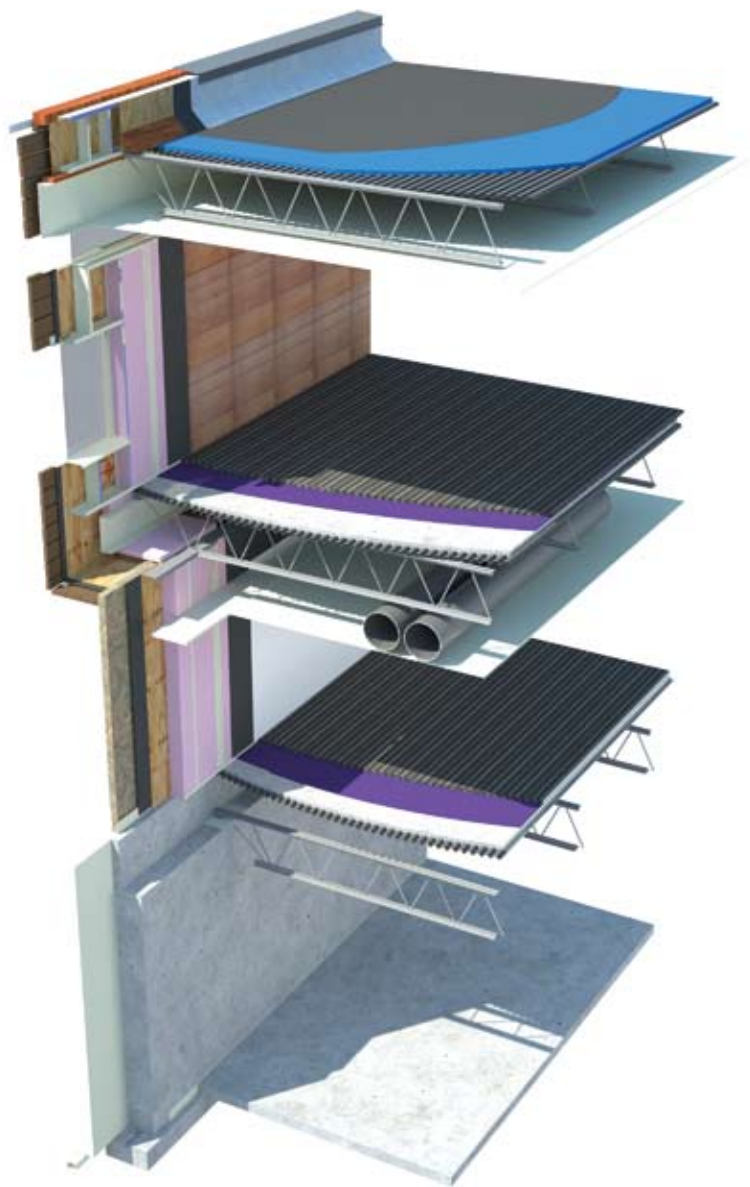


The vertical circulation of the facility has been centralized in an effort to free up façade space for fenestration. This also permits a variety of two story spaces to penetrate the floor plates creating diverse spatial relationships in rooms such as occupational therapy.

Opposite Page: Section 'D.'

Opposite Page: Wall Section 'E' documenting the construction details of the facility.

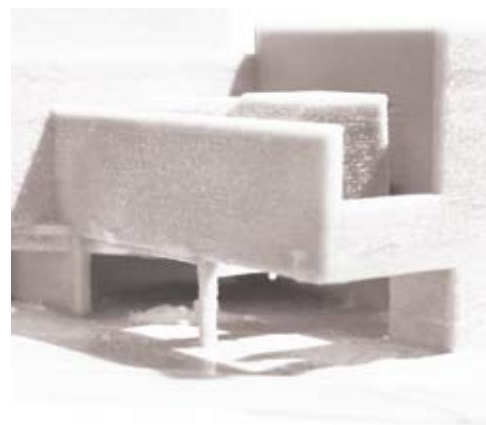
The structure of the building is comprised of steel members with light gauge metal framing in fill panels. Batt insulation is used between the light gauge steel framing, on to which plywood sheathing is attached. The exterior cladding includes limestone and wood finished Trespa. The light joist members provide ample room between the finished ceiling and sub floor for mechanical work and artificial lighting. The floor construction consists of corrugated steel topped with a layer of concrete, on to which the finish material is attached.





Architectural space has the deeply felt ability to disappear while engaging all the sense; it is the space of experience. The ramifications of these studies have profound effects on the spatial experiences of the patients.

As documented in the montage to the left, the space of the dayroom is dominated by the light cannon. The materiality of the space records the path of light throughout the day, while the hard wood floor adds warmth to a typically sterile environment. Ceramic tiling in the circulation spaces allow patients to be aware of when some is approaching or leaving the ward. The various levels of the space are reinforced by different qualities of light during different times of the day. Yet, the secluded back corner of the space remains steady and calm.



The organization of the patient room corridor permits views into the nearby parks and landscapes while removing surveillance from the space. Light leaks in past the units reflecting the warmth of the wood floor onto the gypsum board walls. The organization also generates a series of quiet areas that provide patients with spaces to meet with care givers or relatives.

The patient's room is designed to show ownership. Perhaps the most troubling aspect of psychiatric care is the stripping of ones sense of control. Wood paneling relates the materiality of the room directly to the sense of touch, while the gypsum board wall allows for patients to hang photos, posters and express themselves as they see fit. A corner window, complete with small bench, provides an area for patients to seclude themselves and focus their thoughts. Clerestory windows align themselves with the eastern morning sun, providing patients with a connection to the outdoors.









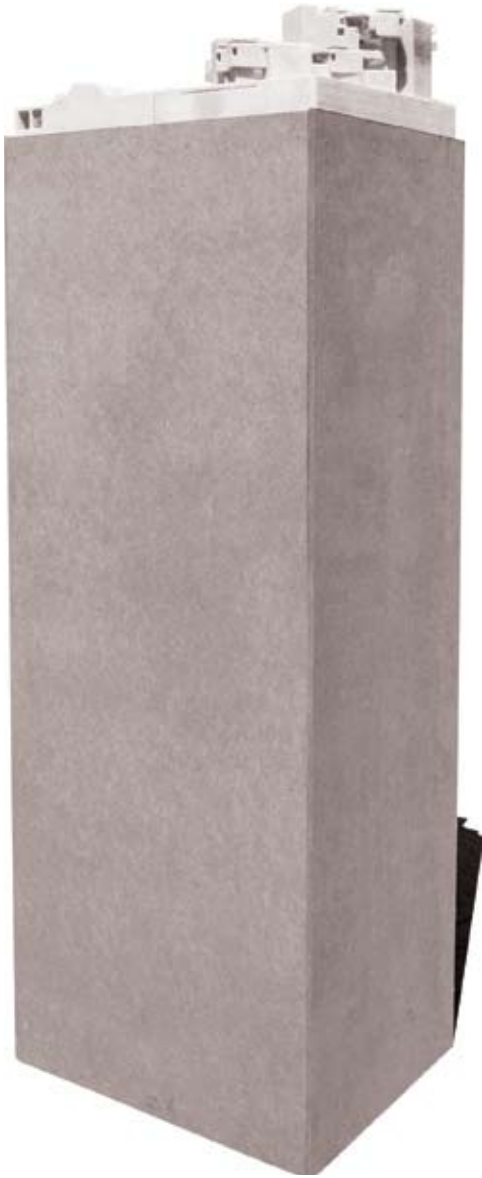
In the book *Atmospheres*, Peter Zumthor describes interior spaces as “large instruments, collecting sound, amplifying it, transmitting it elsewhere.”¹ This idea permeates the space of the isolation room more so than any other space in the building. The tone of the isolation room is one of reflective silence or perhaps even an echo. The materiality of the space combines cool stone with the warmth of a wood floor. The texture of the stone and its temperature wake the skin, while the warmth of the wood reflects onto its rough surface.

1. Peter Zumthor, *Atmospheres*, (Birkhäuser Architecture, 2006), 29.

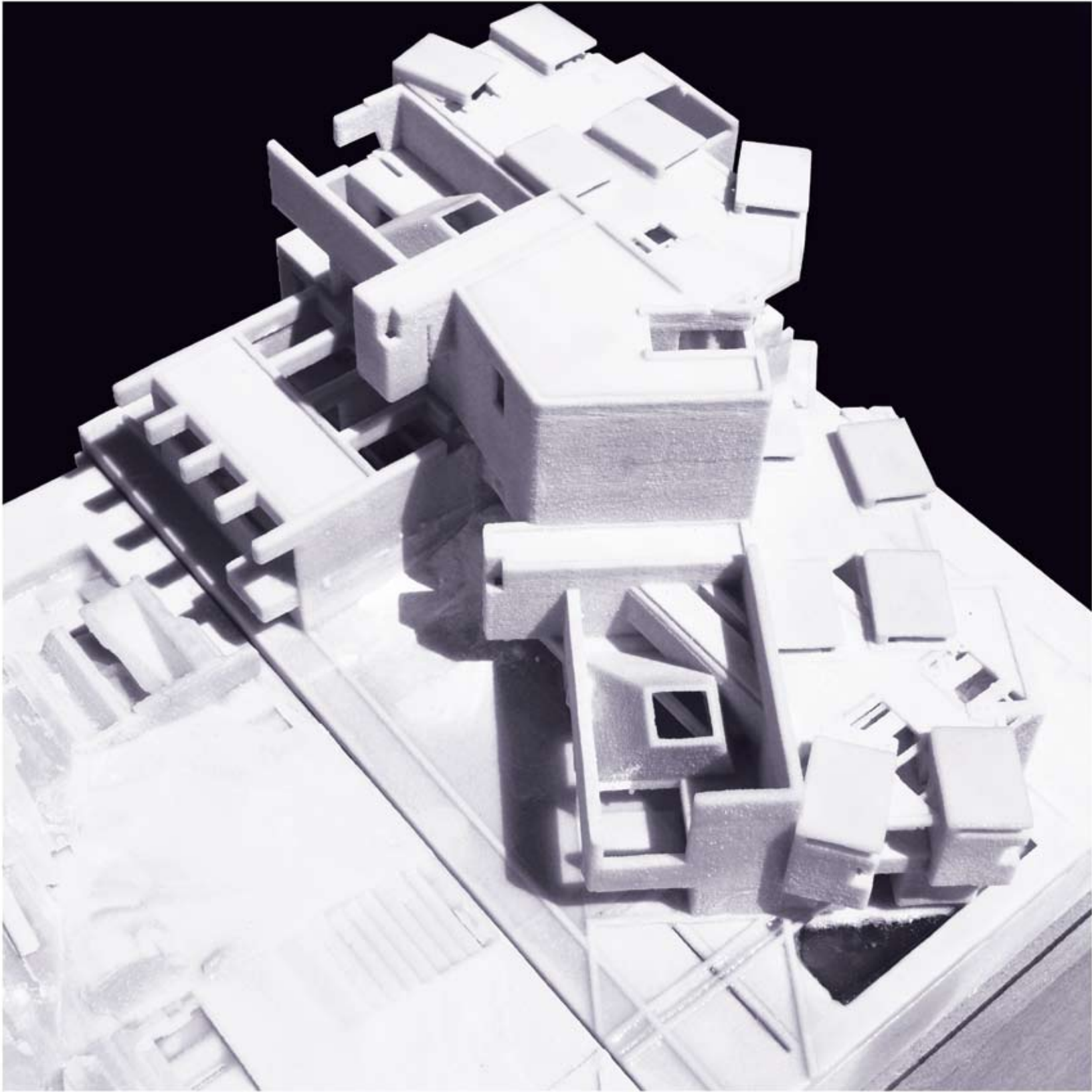


The occupational therapy space is a very open and welcoming environment. Nature intersects the space through natural lighting and an indoor tree garden. The garden allows for privacy while still connecting one to nature. The notion of the oscillation of space continues in the outdoor areas. In these spaces, patients benefit from the landscape's ability to create private, semi-private and public zones. As one moves further away from the facility, the spaces gradually become more public through a series of undulations.





The form of the building is the result of the internal forces. The rear of the building is angled to allow light to enter the patient rooms and is lower in height to respond to the surrounding context. The north side of the building responds to the level of the street and the neighboring building, providing for a seamless integration into the urban fabric.



Conclusion

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To conclude this thesis is to call it complete or finished. Rather, it should be viewed as an ongoing experiment in the search for what we might term architectural knowledge. There have been a variety of strategies explored through this design that evoke a different solution to the dilemma of mental health. It is my hope that the search for more humane solutions does not end here, but rather just begins.



"We must not, therefore, wonder whether we really perceive a world, we must instead say: the world is what we perceive. "

-Merleau-Ponty

Appendix A

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Corporeal Perspective

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As filtered light slices through the Shrine of the Little Flower's large nave, one cannot help but be impressed by the presence of the space. The sun pierces the massive walls and leaks in through the cracks as if it had a life of its own. Footsteps and howling winds echo off the cold stone surfaces, bringing your attention to the volume of the space and drawing you in ever deeper. The experience is one of symbiosis between the individual's consciousness and the space that surrounds them. There is an exchange that occurs in the nave between the individual's constant wonder and the environment's response to that wonder. It is a space that engages our senses and their connection to our consciousness.

This essay will explore the connection between consciousness and our senses through the generation of a phenomenological description of perspective. This description will not only consider perspective as a visual phenomenon but as a phenomenon that engages the other senses as well. This description will provide us with the essence of how perspective appears to our consciousness.

This investigation has the potential to radically change the way in which environments are designed and utilized. With an expanded view of perspective, designers can engage the body in a multitude of new ways. Just as the nave of the Shrine of the Little Flower communicates with the individual, we could imagine new types of spaces that communicate on different levels of perspective with various intensities. These types of spaces could also become useful in a building's ability to acknowledge its users, such as the spiritual communication in the nave of the Shrine of the Little Flower. These spaces could become inherently helpful in the design for the handicapped, such as the mentally disabled.

Phenomenology asks the question of how a particular phenomenon appears to consciousness; it does not ask why it appears. Therefore, we shall begin with how visual perspective appears to consciousness, looking for universal essences. This requires the setting aside of subjective facts in a search for deeper truths.

When focusing on how visual perspective appears, there are a few significant aspects that seem universal. The first significant aspect is that visual perspective changes and becomes re-interpreted as the individual moves throughout their world; the body has an essential role in the phenomenon. Thus, visual perspective is always dependant on the individual and the individual's body in their world. The individual is always the point of origin for a visual perspective. In the example of the nave in the Shrine of the Little Flower, if one were to stand on one side of the nave and look across to the opposing side, they would see one point of view in relation to their body. If the individual were to move even slightly, this point of view would be drastically altered, therefore proving that perspective is dependent on placement of the body.

In addition to the individualistic aspect of perspective, this example also amplifies the issue that visual perspective is a binary relationship. Visual perspective always appears as a relationship between the individual's body and that which is being viewed. Consequently, visual perspective is experienced as a perspective of something being viewed.

If visual perspective presents itself as a relationship between an individual body and something being viewed, then one can conclude that they exist at a distance from each other. When considering how visual perspective appears, one finds that this is indeed the case. The individual will always be at a distance, whether great or small, from what is being viewed. The distance an object is viewed at reflects the amount of detail that is being seen, yet whether the distance is great or small, the object will appear with equal intensity.

In our "lived-space", visual perspective is also fluid.¹ In the context of the Shrine of the Little Flower, in order for one to gain a visual perspective of the space of the nave, they may walk around the space to explore it further. Through this act, they are constructing a visual perspective of the space. True "lived-space" visual perspective does not appear from only one point of view.² Rather, the experience of visual perspective is fluid, operating continuously so the experience becomes a coherent whole.

Accordingly, visual perspective could be phenomenologically described as a fluid visual experience that appears between the individual and what is being viewed, with distance being a necessary aspect. In response to this description, one may find it lacking because it does not acknowledge the horizon line, the vanishing point or perhaps even the human eye's cone of vision. While it is true that these aspects of visual perspective do exist, one must ask themselves whether they appear to consciousness. Is the horizon line or vanishing point ever truly seen, or is it an abstraction we use in the construction of false two-dimensional perspectives? One could argue that the horizon line can be seen when looking out over the ocean. However, this seems to be an extreme example when we consider the context of visual perspective in our everyday lives. When we look upon a space, the horizon line does not immediately exist. Rather, like a vanishing point, it must be constructed. This same logic can be applied to the argument for an acknowledgement of the human eye's cone of vision. The cone of vision never truly appears to our consciousness; rather it is the means through which we see.

Opposite page: The nave of the Shrine of the Little Flower.

1. Kimberly Dovey, *Putting Geometry in its Place*, AR 5920-01:Phenomenology in Architecture Course Packet (2009): 248.

2. Ibid

These aspects of visual perspective answer the non-phenomenological question of what visual perspective is, as opposed to the phenomenological question of how visual perspective appears.

With this description of visual perspective, it is now possible to ask whether the threshold of perspective can be extended to include the other senses as well. In returning to the example of the nave of the Shrine of the Little Flower, there is the faint sound of running water amidst the echoes of footsteps and the howling winds when one enters the nave. The sound of the running water emanates from a small fountain in a chapel directly across from the entrance to the nave, and effectively draws you into the space. This experience leads one to ask the question “is it possible to experience an “auditory perspective” in the same way we experience a visual perspective?” It would seem so, as it is possible to transfer many of the same aspects of visual perspective to auditory perspective. When focusing on the sound of the running water in the nave, the individual is clearly engaged in the phenomenon in much the same way as in visual perspective. In auditory perspective, the individual is the origin point and the intensity of the sound is solely dependent on the individual’s placement in space. Accordingly, if the individual were to move even slightly, the intensity of the sound would be affected. The individual is an essential aspect to auditory perspective.

In order for the individual’s auditory senses to be activated, there must be something to sense. In visual perspective, this was the object being viewed. In auditory perspective, it is the object from which the sound is emanating. Even in the case of an echo, where it is somewhat difficult to locate the source object, the initial source object is necessary to begin the auditory process. In the case of the Shrine of the Little Flower, this object is the fountain, from which a spatial field is created by virtue of the sound’s relationship to the individual. A binary relationship exists between what is being heard and what is making the sound; a relationship that is mirrored in visual perspective.

The distance that is inherent in this relationship is perhaps more relevant in auditory perspective than visual perspective. When one experiences sound, the intensity of the sound varies according to the distance one is standing from the object making the sound. If one were to follow the sound of the fountain in the Shrine of the Little Flower, they would find a gradual increase in the sound’s intensity as they approached the fountain. This concept is taken to the extreme in cities such as Rome, where one can truly experience navigating the city based upon the variety of different sounds created by specifically placed fountains.

This example also illustrates that auditory perspective has a fluid aspect; it does not exist from one point of view. One must effectively explore the space in order to create a true auditory perspective. This

allows fountains such as the one in the Shrine of the Little Flower to effectively become spatial devices, engaging the individual beyond mere visual stimulation.

As one continues to explore the nave further, they feel a comfortable cool sensation fall upon their skin. This is the temperature of the stone on the walls and the tile across the floors. One can intuitively feel the heaviness and massiveness inherent in the stone walls and columns as they pass through the nave. This is the perspective of the haptic, a view of the world taken from a sense of touch.

As Juhani Pallasmaa notes in *The Eyes of the Skin*, “the skin reads texture, weight, density, and temperature of matter... The tactile sense connects us with time and tradition: through impressions of touch we shake (the) hands of countless generations.”³ One certainly gains this haptic perspective as they pass the cool stone columns of the nave or sit in the warmth of the wooden pews. Even upon entering the small chapel with the fountain, one can feel a slight change in temperature as materials and the light change into a warmer palette.

While it seems obvious that the haptic perspective requires an individual to do the sensing and an object to be sensed, the aspect of distance seems to differ from the visual and auditory perspectives. Haptic perspective operates at a much shorter range; it requires closeness. Closeness need not be direct contact, as we can sense the temperature of materials from a few inches away. Nonetheless, distance, or the lack of distance, is an essential aspect to haptic perspective because the generation of the perspective and its intensity is dependent on the distance between the individual and the object to be sensed. If an object were to be grazed by our hand, the sensation felt is very differently than if the object were to be firmly grasped. In the example of the Shrine of the Little Flower, if one were to lightly pass by a stone column, one would feel its coolness. However, if one were to run their hand across the column, they would not only feel its coolness, but also its divots, imperfections and impermeability. Through this act of physical contact, one is engaging the more fully and gaining a deeper perspective of their environment.

The act of engaging the environment through a sense of touch is also inherently fluid. When an object is engaged by the hand, the hand moves across its surface to gain knowledge of the surfaces texture and continuities, in much the same way visual and auditory perspectives are temporal. A simple example of this can be experienced in the worn pews found in the nave. The armrests of the pews are polished from decades of use and wear.

Below: The massive quality of the stone work within the shrine.



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3. Juhani, Pallasmaa, *The Eyes of the Skin*, John Wiley & Sons, LTD. 2005. 56.

As one runs their fingers up the silk-like wood, they experience this wear, the continuity of its surface and what Pallasmaa calls a “shinning of the thousands of hands” that have used the pew before us.⁴ Through this act, the pew enters into the “lived-space” in multiple points of view.⁵

Perhaps the strongest sense that is experienced in the nave of the Shrine of the Little Flower is the sense of smell. On an early Sunday morning, the faint aroma of incense burning from within the building can be inhaled in the crisp outdoor air. Following this scent trail leads one through the entrance of the shrine, down the hall and through the large worn doors that welcome your sense of touch. Upon opening the doors, the scent that fills the room is the first experience you become aware of, all others become secondary.

This dynamic experience is a testament to the subtle yet powerful nature of the aromatic perspective. Like the other perspectives, aromatic perspective changes according to the individual as they navigate their world. The experience of smell is tied to the body, with the individual as the phenomenon’s origin point. For example, if one were to enter a home while a holiday meal was being prepared, the scents that one experiences as they approach the kitchen from the front door would change dramatically. This experience parallels the phenomenon of the shifting point of view in visual perspective.

Similar to visual perspective, aromatic perspective appears to exist in a binary relationship with the individual and that object being perceived with the nose. Through this relationship, one can navigate their surroundings, similar to the experience of the progression into the nave of the Shrine of the Little Flower. In this regard, aromatic perspective becomes very much like visual and auditory perspective in leading one through their environment and creating a spatial field.

Fundamental to this relationship is, again, distance. Much like auditory perspective, aromatic perspective’s intensity is based on one’s proximity to that which is being sensed. As one approaches an object such as a bouquet, the smell grows stronger; as one recedes, the scent diminishes. Thus distance becomes an essential aspect in the appearance of aromatic perspective to our consciousness. Of course these aspects of aromatic perspective exist in temporality, based on the individual and that being sensed. Much like haptic perspective, aromatic perspective is fluid and exists from multiple points of view.

4. Kimberly Dovey, *Putting Geometry in its Place*, AR 5920-01:Phenomenology in Architecture Course Packet (2009): 248.

5. Juhani, Pallasmaa, *The Eyes of the Skin*, John Wiley & Sons, LTD. 2005. 56.

One might imagine the experience of a field of flowers and shifting aromas that occur as they move from one side to another. It is through the continuity of the individual that the experience of these multiple points of view. It is through the continuity of the individual that the experience of these multiple points of view.

The sense of taste is the possibly the only sense that is not activated by the space of the nave. However, this sense can be imagined as working similarly to the haptic perspective. The experience of taste requires a body and an object to be tasted. However, unlike many of the other senses, the experience of taste requires direct contact with the object being sensed. Without direct contact the sense is not activated. This sense is also not temporal in that it does not take multiple points of view in order to taste an object. Although some aspects of perspective may diverge in the taste perspective, it is still a necessary perspective to take into account when experiencing the totality of our environment.

Up to this point, the description of perspective has been fragmented into five sub-categories: that of vision, sound, touch, smell and taste. Nonetheless, spaces such as the nave of the Shrine of the Little Flower require the activation of more than a single category to gain a true lived-world perspective of the space. To simply limit perspective to that of the visual is to remove much of the spatial experience, thus negating the true essence of the phenomenon. It is in opposition to this view that a corporeal description of perspective is proposed. Corporeal perspective can be described as a fluid perspective that exists in overlapping spheres of distance in accordance with the five senses. This perspective has the individual as its origin point who is always held in relation to an object to be understood or sensed. The experience of taste and touch appear as the first sphere in corporeal perspective. Through these senses, we gain a perspective of taste, texture, temperature and density. The following sphere is that of the aromatic perspective, which provides a perspective of smell which can be particularly useful in navigation. Overlapped with this sphere is that of the auditory perspective, which affords the individual a greater sense of their surroundings by virtue of its un-directional nature. The final sphere of corporeal perspective is that of vision, which allows for an extremely directional experience of the world around us. The combinations of all these senses provide a coherent, integrated holistic view of perspective as it appears in our lived-world.

In the case of the nave of the Shrine of the Little Flower, one could imagine being in the church parking lot on a Sunday morning and being drawn through the main entrance by the hint of incense in the air. From here, the large door to the entrance of the nave is now in full view and, as one opens it, a subtle squeak echoes off of the stone surfaces. The individual is now within the nave and visually experiencing its volume and the way in which light pierces its walls.

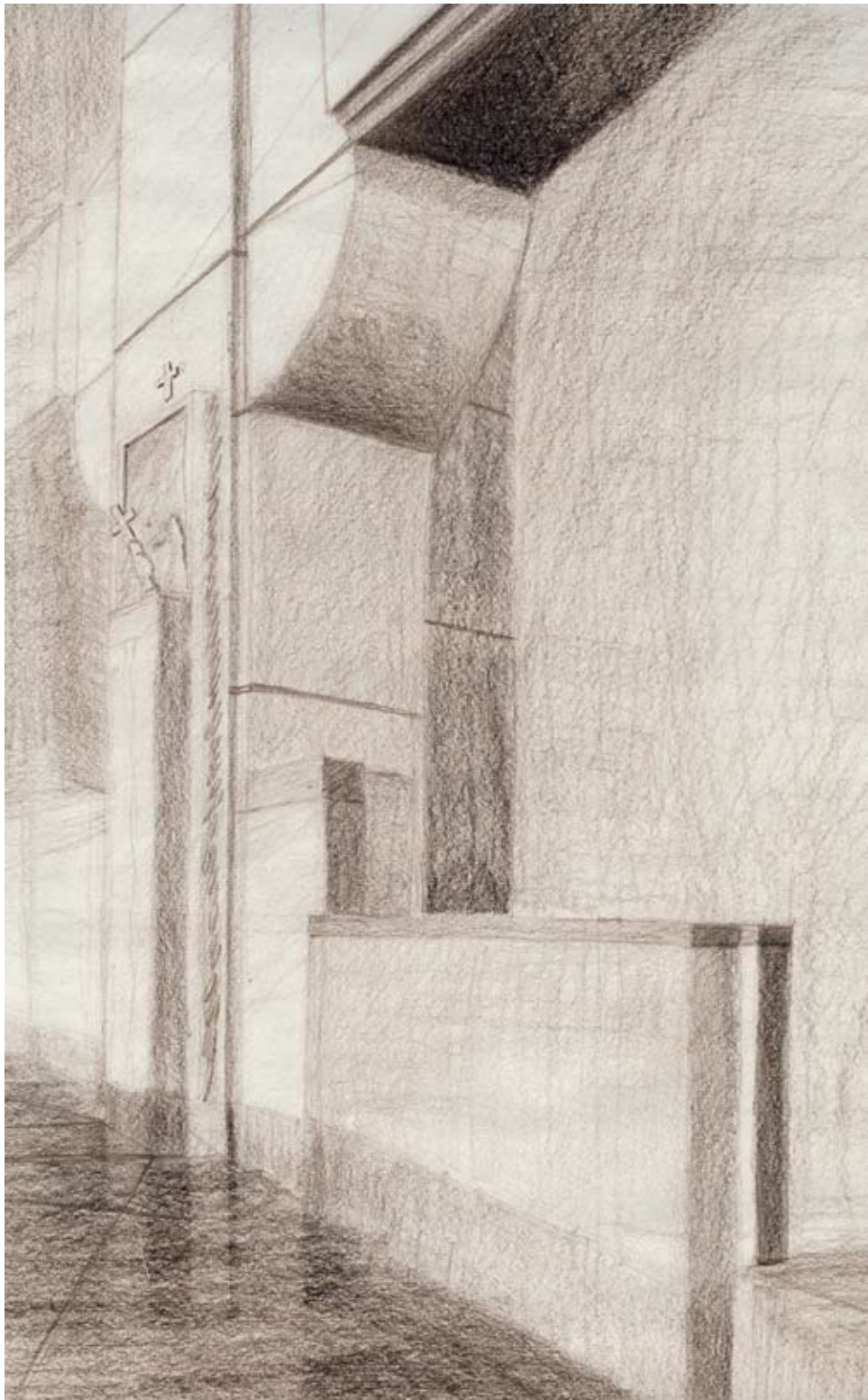
A quiet fountain can be heard in the distance and leads one further into the space as one takes their seat in the worn, comfortable pew. One is fully immersed in the environment and now peers into the center of the space to listen to the sermon.

The phenomenon of corporeal perspective is not unique to the nave of the Shrine of the Little Flower. The activation of the full range of senses can also be experienced in environments such as the Cranbrook Campus, where designers have taken care to choreograph each and every sensory event. From the moment one steps foot on the campus, they are confronted by visual axis and the aroma of flowers which are particular to specific areas on the campus. As a result of the dense vegetation obscuring views, the auditory perspective is used as a means of navigation by virtue of carefully orchestrated fountains. The texture and materials of the built environment change as one moves from the hardness of concrete to worn dirt paths and wooden bridges. Here, again, one is confronted with an environment designed to engage all senses.

The impacts that corporeal perspective can have on the design of architecture are profound. By considering the spheres at which senses operate and how these various perspectives appear, designers can effectively create buildings around the narrative of human experience. The atmospheres of these buildings have the potential to engage the body in ways that are deeply rooted in the way in which our world is understood. For example, when designing a space for a handicapped individual, one may assume their corporeal perspective, such as the mentally handicapped. In designing through this perspective, the designer has the ability to create a building that is much better suited for its purpose and the specific needs of the client. In the case of the mentally handicapped, the designer may realize that due to the patient's condition, there is an increased need for a connection with nature. In implementing this realization, the designer may take steps towards addressing all five senses with the intention of opening the individual up to nature.

Perspective is typically viewed as a purely visual experience, removing much of the lived-world from its grasp. Yet the expansion of perspective to include all five senses allows for an accurate description of how the phenomenon truly appears to a purified consciousness. This corporeal perspective enables a better understanding of the spheres at which these senses are activated and their operation. Consequently, allowing designers to create engaging humanistic environments based on the foundational workings of the human body that have the potential to impact lives. For example, one might imagine the importance of the haptic and aromatic perspectives as a tool for navigation in the design of facilities for the blind. By narrowing the focus of the design on the appropriate perspectives, one has the ability to not only create an immersive environment, but also a meaningful experience for the users. As we have seen through the nave of the Shrine of the Little Flower, these spaces have the ability to inspire those who enter and engage them.

Opposite Page: A study in capturing the visual weight of the architecture within the shrine.



“Psychologically experienced consciousness is therefore no longer pure consciousness; construed Objectively in this way, consciousness itself becomes something transcendent, becomes an event in that spatial world which appears, by virtue of consciousness, to be transcendent.”

-Edmund Husserl

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