

Architecture and Well-being:

Against Doctors' Orders,

by

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A thesis submitted to
The Faculty of Graduate Studies
in partial fulfillment of
the requirements for the degree of

Master of Architecture
(M.Arch Professional)

Carleton University
Ottawa, Ontario
September 14, 2006

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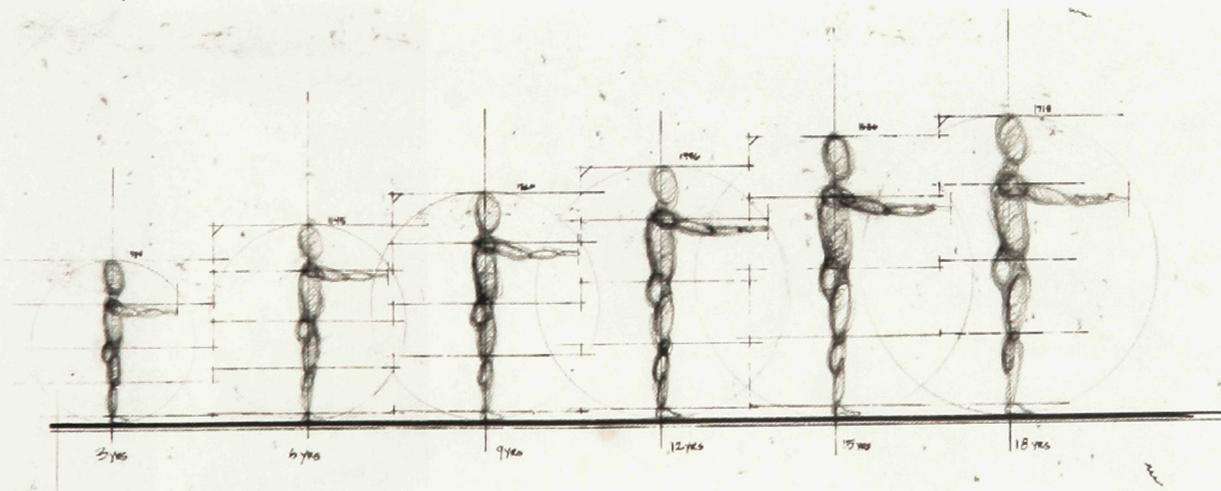
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Abstract

This thesis explores the effect modern medicine is having on the well-being of contemporary society. It questions the hegemony of professional medicine and reflects upon the authenticity of being healthy. In an attempt to counter the negative effects of modern medicine, this thesis presents an alternative healing environment to the functionally driven hospital architecture that is strongly directed by the profession of medicine. By specifically connecting healing architecture with concepts of self and communal care, familiarity in everyday life and by phenomenologically enhancing experience through sensorial delights, I establish that architecture alone can alternatively invigorate the convalescent and subdued medicalized life. The proposed *Adolescent Healing Centre*, located in Montreal on Boulevard St. Laurent, resides in a diminished multicultural hub and symbiotically replenishes the current urban stagnation while providing an environment for autonomous healing.

Thank you to my family for supporting me,
and thank you to Jen for all your help and patience...



Contents

	Abstract	ii
	List of Illustrations	v
	List of Plates	vii
	Introduction	1
1	Institution of Healing: A Post-Mortem	5
	The Pagan Institution	7
	Monastic Hospital	11
	Medieval Hospital	13
	Reformation	14
	Conclusion	16
	Chapter Notes	19
2	Modern Medicine: An Epidemic	21
	Professional Control	22
	Human Decentralization	27
	Inverting the Everyday	29
	Conclusion	31
	Chapter Notes	34
3	Sensory Perception: An Engaging Experience	36
	Engagement	37
	Tranquility in Darkness	39
	Colourful Enchantment	43
	Material Sensuality	45
	Conclusion	48
	Chapter Notes	50
4	Eudemonic Architecture: An Adolescent Healing Centre on The Main	52
	Contextual Overview—Boulevard St. Laurent, Montreal	54
	Reserve Sites: the Lower Main	56
	Design Process	61
	Descriptive Program	72
	Building Design	74
	Chapter Notes	87
6	Conclusion	88
	Works Cited	91

List of Illustrations

(all images are copyright of the author unless noted otherwise)

- Figure 1 Ancient carvings of the Greek priest medical consultant. *Hospital Architecture and Beyond* (Van New York: Nostrand Reinhold Company, 1969).
- Figure 2 Plan of a double incubation hall at the Asklepieion of Epidauros, fifth century B.C.E. *The Hospital: A Social and Architectural History* (New Haven: Yale University Press, 1975).
- Figure 3 Model of the Asklepieion of Pergamon by H. Schleif. *The Hospital: A Social and Architectural History* (New Haven: Yale University Press, 1975).
- Figure 4 (a) Floor plan and (b) reconstruction of the Roman military hospital (valetudinarium) of Vindonissa (Wildisch, Switzerland, first century C.E.) *The Hospital: A Social and Architectural History* (New Haven: Yale University Press, 1975).
- Figure 5 A nursing brother kissing the wounds of a patient. *The Hospital: A Social and Architectural History* (New Haven: Yale University Press, 1975).
- Figure 6 Cluny monastery around 1157 after several expansions. *The Hospital: A Social and Architectural History* (New Haven: Yale University Press, 1975).
- Figure 7 Painted portrait of Martin Luther (1483 –1546) by unknown artist. "Martin Luther." *Wikipedia, The Free Encyclopedia*. 2006, Wikimedia Foundation, Inc. 13 Aug 2006. <<http://en.wikipedia.org/wiki/Image:Luther46c.jpg>>
- Figure 8 Increasingly targeted advertising by pharmaceutical companies is leading to increased prescribing. Lunesta, 2006. 18 Aug 2006. <<http://www.lunesta.com>>
- Figure 9 Koshimo House by Tadao Ando. *Tadao Ando* (The Museum of Modern Art: New York, 1991).
- Figure 10 Chapel on Mt. Rokko by Tadao Ando. *Tadao Ando* (The Museum of Modern Art: New York, 1991).

- Figure 11 Chapel at La Tourette by Le Corbusier. *The Monastery of Sainte Marie de La Tourette* (Birkhauser: Switzerland, 2001).
- Figure 12 Atelier in Osaka by Tadao Ando. View of light court at 10 am, 12 noon and 1pm. *Tadao Ando* (The Muesum of Modern Art: New York, 1991).
- Figure 13 Light-well study with textured materials. Wood, plaster, and metal.
- Figure 14 Context diagram showing transportation infrastructure and major zones.
- Figure 15 Looking up Boulevard St. Laurent from Boulevard Rene-Levesque.
- Figure 16 Figure-ground exploration of Lower Main layering the historical buildings of a century ago and those present today.
- Figure 17 Two figure-ground representations. On the left, analyzing reserve sites in relation to building footprints and block density. On the right, inverting the void of the reserve site to examine the relationship between the respective block and possible building site.
- Figure 18 Existing street elevation outlining proposed site.
- Figure 19 Context diagram of immediate site area showing building uses.

List of Plates

(all images are copyright of the author unless noted otherwise)

- Plate 1 Assembly construction. Stone, metal, plaster, and oak, 32"x12".
- Plate 2 Sited collage and preliminary collage. Digital manipulation, 44"x24".
- Plate 3 Basswood and chipboard model, 26"x16".
- Plate 4 Conceptual line drawing. Ink on velum, 28"x20".
- Plate 5 Ink and graphite axonometric drawings on Stonehenge paper, 21"x13".
- Plate 6 Sectional explorations. Digital manipulation, 22"x11".
- Plate 7 Sectional exploration. Ink, graphite and colour pencil, 30"x17".
- Plate 8 Schematic section. Graphite and colour pencil, 32"x12".
- Plate 9 Design sketches. Graphite and colour pencil on Stonehenge and trace paper.
- Plate 10 Design sketches. Graphite and colour pencil on Stonehenge and trace paper.
- Plate 11 Sectional isometric drawing. Graphite on Stonehenge paper, 40"x24".
- Plate 12 Basement floor plan, 1:100. Graphite on Fabriano paper, 30"x22".
- Plate 13 Plan detail at spiritual room and model vignettes.
- Plate 14 Ground floor plan, 1:100. Graphite on Fabriano paper, 30"x22".
- Plate 15 Plan detail at entrance foyer with model vignettes.
- Plate 16 Second floor plan, 1:100. Graphite on Fabriano paper, 30"x22".
- Plate 17 Plan detail at patient rooms with model vignettes.
- Plate 18 Fifth floor plan, 1:100. Graphite on Fabriano paper, 30"x22".
- Plate 19 Plan detail at corridor bridges and light wells with model vignettes.

- Plate 20 Building cross-section through gymnasium and foyer, 1:100. Graphite on Fabriano paper, 30"x22".
- Plate 21 Building cross-section through baths and atrium, 1:100. Graphite on Fabriano paper, 30"x22".
- Plate 22 Building model vignettes.
- Plate 23 Building model, 1:100. Basswood, plaster, and steel.
- Plate 24 Building model, 1:100. Basswood, plaster, and steel.

INTRODUCTION

What is necessary for human beings to be well or to feel well, to be happy or to feel happy? This is the fundamental question I set out to explore in this thesis. *Feeling* something is commonly mistaken for *being* something, therefore this study sets out to distinguish between the two. For example, upon visiting a doctor, a patient is often asked the question, “how do you feel?” The reply to that question is entirely dependent on the current variables and conditions that are present within that patient’s everyday life. The responses “I feel good” and “I feel pain,” often answer the aforementioned question, but superficially sanction a person’s health and provide only a description of a fragmented, momentary state of

wellness.

Well-being in contemporary western society has been substituted by well-feeling, as individuals increasingly depend on the quick fixes of professional medical treatment and its arsenal of prescription drugs. Our lives have become increasingly medicalized as we staunchly support and depend on technological innovation to make us healthy; more and more we are bombarded by the over-categorization of sickness and over-diagnosis, supported by a lucrative pharmaceutical industry.

Since the modern medicalization of life, a condition Ivan Illich uses to describe the social impairments caused by the standardization of health-care that requires all suffering to be hospitalized, architecture for the convalescent became docile and subservient to the control of professional medicine. Architects have simply accepted the hospital typology forcefully shaped by modern medical practices and see little opportunity for alternative design solutions due to the highly regulated and socially accepted practices of professional medicine.

By questioning the validity of certain established professional health-care practices, this dissertation aims to free the convalescent from the control of modern medicine in order to reevaluate the human condition and what it fundamentally means to be healthy. In rejecting the opaque practices of professional medicine, the patient and society as a whole can recover a body autonomy that effectively contributes to people's ability to care for themselves and each other. Furthermore, such an approach identifies the

inappropriate conditions of current healing architecture, thus creating an opportunity to explore alternative architectural propositions and spatial conditions appropriate to a new way of healing.

This thesis is divided into four chapters; the first three chapters comprise the main theoretical component of the study. Chapter one, “Institution of Healing: A Post-Mortem,” presents a chronological historical overview that analyzes the transformation that occurred during the period between the origin of the medical institution and its eventual obfuscation by professional medicine.

In chapter two, “Modern Medicine: An Epidemic,” the stigma of contemporary medicine is examined as a cause of the loss of body autonomy. In this chapter, the tone of the thesis is intensified by addressing the current unfavourable condition produced by professional medicine, leading towards the argument of a necessary co-existence between everyday life and self-care.

The third chapter, “Sensory Perception: An Engaging Experience,” uses Heidegger’s definition of engagement as a springboard to propose the introduction of sensorial delights within healing environments. These techniques could better address the human condition and therapeutically evoke a mystical and spiritual healing nature in architecture.

The fourth and final chapter, “Eudemonic Architecture: An Adolescent Healing Centre on The Main,” presents the architectural project and its generative process. The

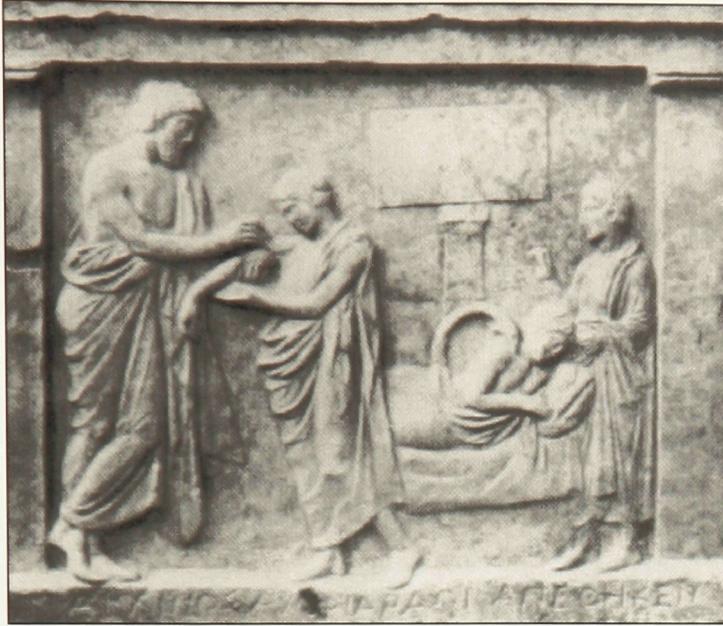
design proposition for an *Adolescent Healing Centre* located on Boulevard St. Laurent in Montreal, presents an alternative architectural solution that addresses the need for hospital de-institutionalization while reinforcing the practice of self and communal care.

1

INSTITUTION OF HEALING

A POST-MORTEM

Throughout human history, anthropology has found human concern for shelter and warmth, food and nutrition, and the inner soul and death. Generally accepted as essential to human survival, the aforementioned concern for well-being is more significant if viewed as a characteristic of what it means to be human. If man requires shelter and warmth, he builds a hut; if he requires food and nutrition, he hunts and scavenges; and in searching for the sublime, he erects a temple. Civilization is what distinguishes humanity from the animal kingdom and our mortality is what separates us from the divine. Herein lies a definitive condition of *life* in general—be it plant, human, bacterial, or other forms of animal life—to be alive, necessarily leads to

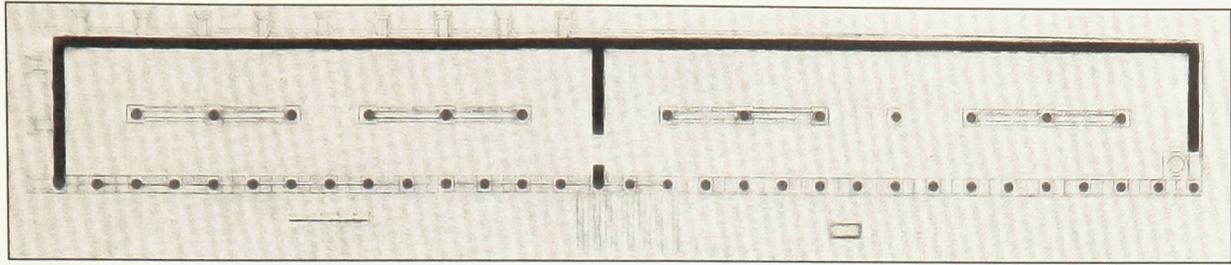


1 Ancient carvings of the Greek priest medical consultant. *Hospital Architecture and Beyond* (Van New York: Nostrand Reinhold Company, 1969), p. 169.

death. Therefore, as living organisms with anatomical dependencies, our survival instincts follow the path of *health*; a concept defined by Ivan Illich, that “designate[s] the intensity with which individuals cope with their internal states and their environmental

conditions.”¹

When an individual is unable to cope with his internal state, he ultimately becomes ill and suffers, and possibly dies. In contemporary western society we have evolved to an adverse concept of health that regards death as the enemy. This pure rejection of the truth of the human condition has taken us further from any favourable concept of health or well-being. With the ever expansive categorization of illness², the sick no longer associate their condition with something of a mystical nature. Likewise, spirituality no longer plays a primary roll in healing, as modern medicine believes it can scientifically explain and professionally cure almost everything. Something has been lost in our past that no longer applies to modern healing. The history of the institution of healing reveals that our current situation does not reflect the primordial origins of convalescent care.



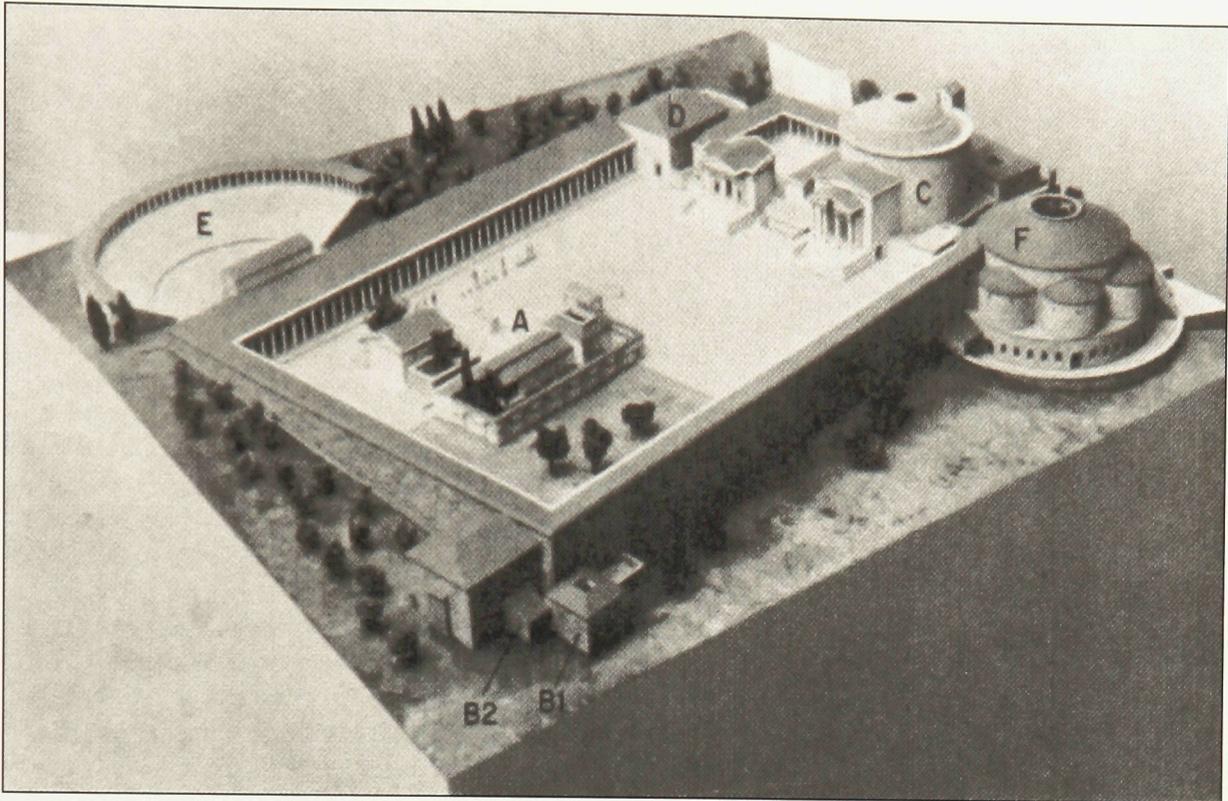
2 Plan of a double incubation hall at the Asklepieion of Epidauros, fifth century B.C.E. *The Hospital: A Social and Architectural History* (New Haven: Yale University Press, 1975), p. 3.

This chapter will examine the western morphology of the hospital, from its earliest appearance to its secularization, and trace the concurrent spiritual severance as it leads to the contemporary demystification of suffering.

The Pagan Institution

Primitive man was capable of understanding self-inflicted pain and injury caused by others. Internal pain, which could not be related to any obvious *cause* and *effect*, was not understood and was thought to be in the realm of the supernatural.³ Man's inability to understand his illness created a dependency on the wisdom and power of healing. Subsequently, this supernatural pain brought about the first sign of the knowledgeable healer in primitive societies. The medicine man formed a link between man and the divine, believing that unexplainable human suffering was caused by evil spirits, of which he had the skill to exorcise. This marks the critical beginning of a link between medicine and religion, which with the blossoming of civilization would shape the hospital institution up until the sixteenth century.⁴

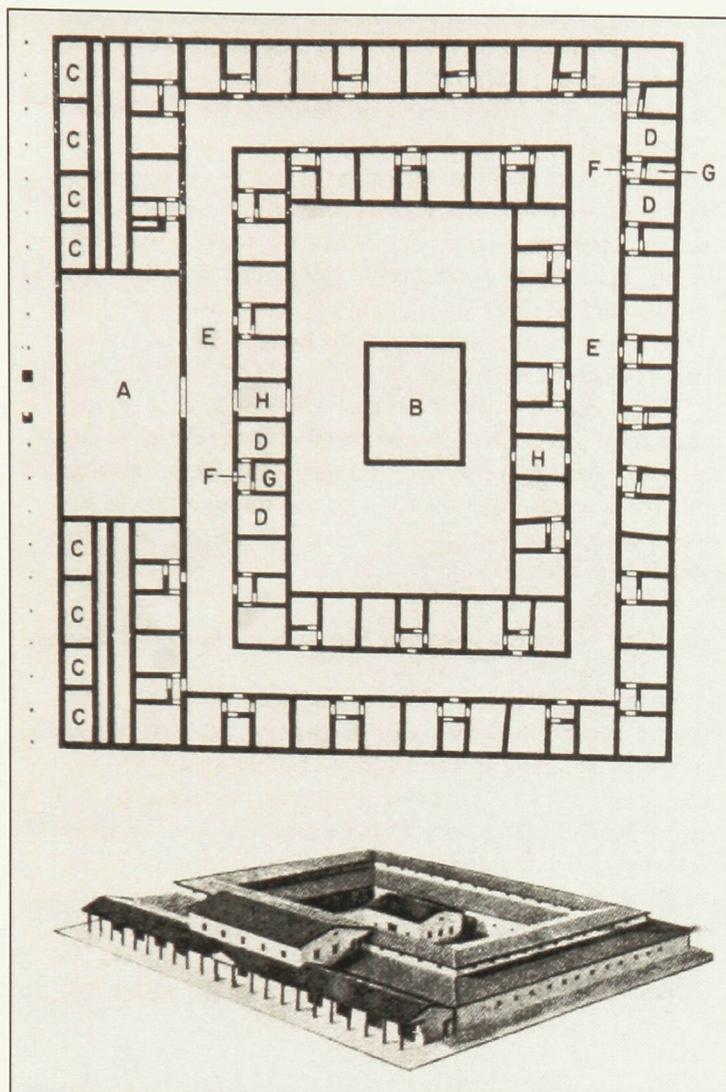
As society progressed and the arts became more sophisticated, the concept of social assistance for the sick began to develop. Dating as far back as classical Greece—with



3 Model of the Asklepieion of Pergamon by H. Schleif. *The Hospital: A Social and Architectural History* (New Haven: Yale University Press, 1975), p. 5.

fragmentary traces found in Mesopotamia—the hospital emerged as an institution that served the needs of the sick. Greek civilization placed significant value on the condition of the human body and mind, as seen through the ancient Olympics and the works of notable philosophers.

For Greek philosophers, “health” was a concept of harmonious mingling, balanced order, and rational interplay of the basic elements. He who integrated himself into the harmony of the world, of his time and place, was healthy.⁵ The Greeks constructed typical portico style incubation halls that were concerned with the care of the sick. These rectangular halls were enclosed on three sides with the fourth open to the southern sun (fig. 2), and placed in quasi-institutions for healing known as *Asklepieia*. The Asklepieia



4 (a) Floor plan and (b) reconstruction of the Roman military hospital (valetudinarium) of Vindonissa (Wildsch, Switzerland, first century C.E.). A, Entrance Hall; B, courtyard hall; C, small rooms behind the portico for nurses and administrators; D, typical patient rooms; E, corridor; F, vestibules; G, back rooms; H, passageways. *The Hospital: A Social and Architectural History* (New Haven: Yale University Press, 1975), p. 5.

were often “alongside mineral waters or warm healing springs, and were places of peaceful and tranquil landscape selected with that sensitivity to the genius loci peculiar to the pagans.”⁶

This ancient healing place was a highly organized campus-like arrangement that often consisted of the following elements (fig. 3): an incubation hall for dreamers (A), latrines (B1 and B2), a temple (C), a library (D), a gymnasium (E), and what is thought to have been the treatment hall (F); a two-storey circular structure with a south

facing outer walkway.⁷ Alongside early architecture associated with healing, ancient Greece also contributed countless compilations of medical writings—most notably *The Hippocratic Collection*⁸—that formed an epistemology of medicine for posterity.

Pre-Christian Romans, like the Greeks, recognized the need for a separate institution for the care and shelter of the sick. However, the development of such an institution in Rome differed from that of the Hellenistic period, as the Roman hospital was a direct result of colonization.⁹ The military was fundamental to Rome, and as the Empire geographically grew, the practice of sending injured soldiers home for care was no longer sufficient.

The solution was a distinct institution for wounded soldiers that could be strategically set up within conquered land to serve the proximity of battle. To the Roman people, this institution was known as the *valetudinaria*¹⁰ (fig. 4). This barrack-style, military hospital, was often symmetrically laid out, with two large halls at the entrance and centre, of which the latter was surrounded by an internal courtyard. In the double-loaded corridors, issues of darkness were solved by Roman technical ingenuity. A clerestory, allowing light to penetrate the hallways, was utilized by the Romans and remarkably created a space for healing that received natural light in virtually every area occupied by the sick. Another particularity to the Roman design—evident in the plan—is the use of vestibules off the corridors connecting to patient rooms. These rooms “are not entered directly from the corridor but from a little vestibule between every two rooms, which means that dust and noise from the corridor must have been considerably reduced.”¹¹



5 A nursing brother kissing the wounds of a patient. *The Hospital: A Social and Architectural History* (New Haven: Yale University Press, 1975), p. 7.

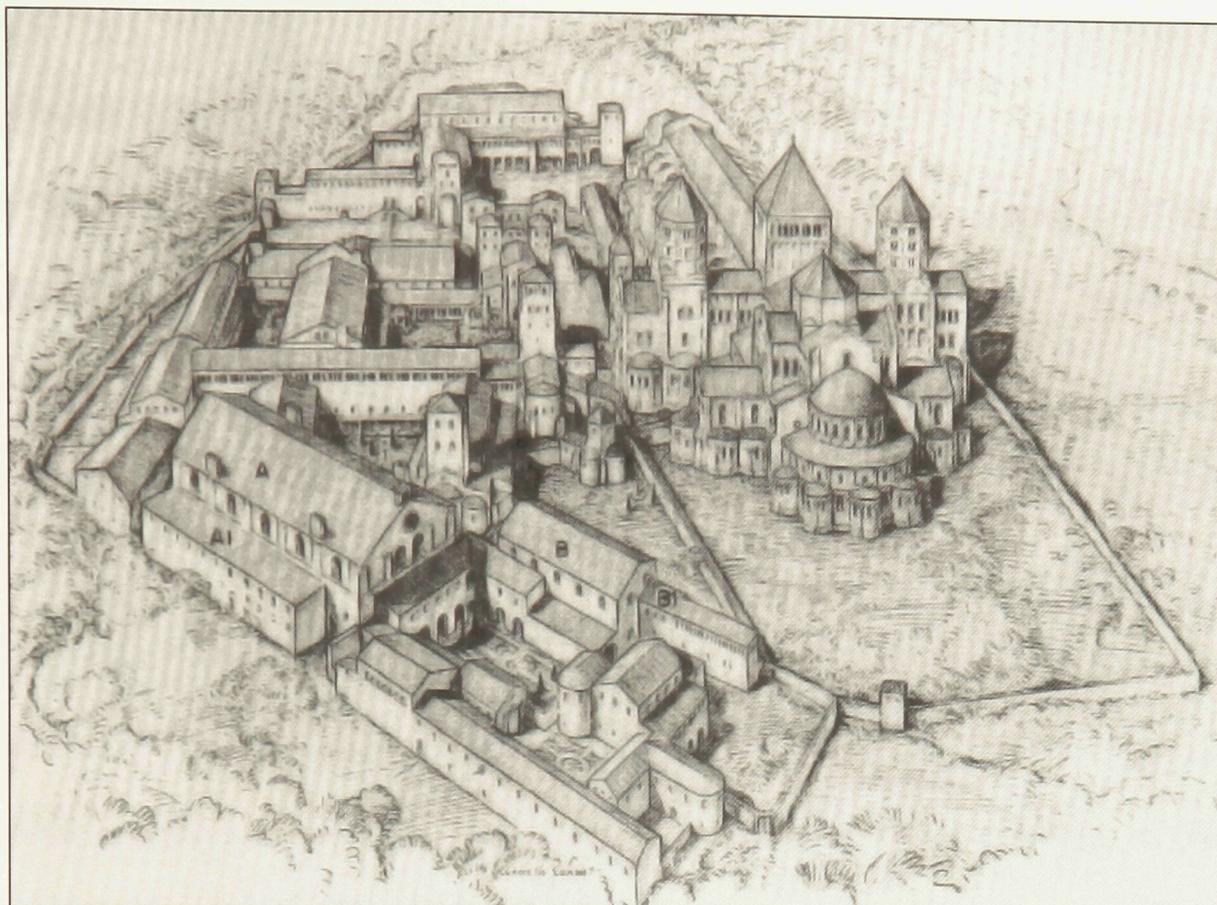
Despite the differences in planning and style, the Greek Asklepieia and pre-Christian valetudinarium were both associated with the worship of *Asclepius*, the pagan god of medicine and healing. Asclepius was said to visit the sick in their dreams and prescribe a cure, in which the patient would report to the caregiver.¹² It is evident that at this point in history the hospital typology was born.

However, the physician associated with this hospital

was no more significantly knowledgeable than the patient himself, as he simply carried out the instructions of a spiritually omnipotent source.

Monastic Hospital

A considerable thrust forward in convalescent care in the west occurred as pagan gods dematerialized and Christianity became recognized as a state religion. Christian values embodied charitable care for fellow man and brought increased ethical motivation to the construction of institutes for all sick. In 325 C.E., the “Council of Nicaea instructed the bishops to establish a hospital in every city that had a cathedral, and at the end of the fourth century the Council of Carthage urged them to maintain a hospice (*hospitiolum*) not far from the church.”¹³



6 Cluny monastery around 1157 after several expansions. *The Hospital: A Social and Architectural History* (New Haven: Yale University Press, 1975), p. 18.

The strong affinity between Christianity and its egalitarian care for the sick produced an architectural typology that was rather indistinguishable from the basilica itself. These institutions arose as a result of early Christian monasticism and were devotedly inspired by the sacred proclamation, “Inasmuch as ye have done it unto one of the least of my brethren, ye have done it unto me.”¹⁴

The strenuous journey of the pilgrim represented an act of penance, and it undoubtedly took a great toll on the health of the traveler. As a result, monasteries not only housed pilgrims, but as a Christian duty, they began allotting space for the nursing and healing of sickened travelers. These monastic hospitals, similar to the Greek

Asklepieia, were comprised of various components in a campus-like arrangement.¹⁵ However, these ecclesiastical institutions were highly disorganized and often crowded due to repeated expansion (fig. 6). The monastic hospital was a symbol of Christian beliefs, a caring for others as if they were Christ himself, hence the basilica always stood as the central organizing component of the entire institution. The church and the hospital were indivisible at this point in history. This resulted in an ecclesiastical institution that had a primary agenda which was never really medical, but rather a religious duty.¹⁶ The spirituality of the church proved very influential and significant to the ailing bodies that were under its care. Therefore, the entity of church and hospital proved to be prosperous because the very religious values that established charitable care were now the monastic hospital's most powerful source of healing.

Medieval Hospital

Throughout the Middle Ages, the ubiquity of the hospital was felt in any sizeable European city. Paris was recorded in the fourteenth century as having forty hospitals and a similar amount of leper houses.¹⁷ This was once again primarily due to Christian motivations, as church teachings fashioned a remarkably charitable attitude that prevailed throughout the medieval period. Hospitals were never short of financing or sponsorship because the wealthy were quick to avoid suffering and pain in the next world by performing charitable deeds towards others as an act of salvation. Similarly, a portion of government taxes were directed towards hospital funding.¹⁸

With the overwhelming prosperity of the hospital, also came its inevitable maladministration and abuse. The abundant supply of funding and lack of general regulation in hospitals presented lucrative opportunities that were often taken advantage of by individuals who found themselves in a position to do so.

Hospital funds were misappropriated; in various instances hospitals were turned into ecclesiastical benefices to provide and income for some cleric; and toward the end of the Middle Ages hospitals frequently became boarding homes for the aged or for able-bodied individuals.¹⁹

These crimes against the hospital did not go unnoticed by the larger clerical authorities. However, a statute requiring an oath to “administer honestly the property entrusted” and a call for annual reports, implemented by Pope Clement V in 1311, proved little more effective than a slap on the wrist.²⁰

The medieval hospital remained a spiritual and religious institution throughout the Middle Ages. Spiritual care predominated the hospital, and the suffering of the sick and dying was a direct, individual relationship of one’s internal, spiritual character and the disease that was attacking it. However, with the development of western cities, came new social situations that demonstrated the inadequacy of the Christian influenced, medieval hospital.

Reformation

The influence of Christian values throughout the Middle Ages generated a socio-religious condition that necessarily required the poor and ailing for the performance of charitable acts and ultimate salvation.²¹ The impact of this condition outwardly encouraged

begging, and moreover saw it as a necessary part of society. In the sixteenth century, the poor now found themselves in an even worse situation because their assumed social, obligatory role produced little or no impetus to bettering their situation. As this evidently led to a severe rise in poverty rates, increasing numbers of the poor began dramatizing illness in desperate attempts to receive shelter and care. The social distress of the sixteenth century needed to be solved. In the context of the hospital, this was having a serious disabling effect as the institution was incapable of dealing with overcrowding and dreadful conditions. What came as a solution followed closely with the reform teachings of a German monk named Martin Luther.

Luther was a leading influence in the Reformation of the sixteenth century. His interpretation of the Holy Bible emphasized “that a person is saved by the merciful kindness of God through the merits of Jesus alone, received through trusting faith in Jesus, not by human efforts to earn God's favor.”²² This radical shift constituting sole “faithfulness” subordinated any act of penance towards salvation, but more significantly, it was this abandonment of principal Christian beliefs that brought about the secularization of the hospital.

During the Reformation, a national consciousness in developing European society arose and saw recurrent conflict between Church and State.²³

As cities in Europe prospered and the bourgeoisie grew wealthy and powerful, municipal authorities tended to take over or to supplement the activities of the Church. In part, this was politically motivated, a desire of the civil authorities to be independent of clerical domination or to render the ecclesiastical power subordinate.²⁴



7 Painted portrait of Martin Luther (1483 –1546) by unknown artist. "Martin Luther." *Wikipedia, The Free Encyclopedia*. 2006, Wikimedia Foundation, Inc. 13 Aug 2006.

<<http://en.wikipedia.org/wiki/Image:Luther46c.jpg>>

The clergy's involvement did not entirely disappear following the sixteenth century; however, its influence did, as the administration and general control of the hospital increasingly found itself in the hands of municipal authorities. A new social order had arrived; the State appropriated responsibility for the sick as part of its civic duty, and the hospital demonstrated its suitability as society's instrument to ensure the health of the

people. What followed would eventually set the path for a hospital condition that gave birth to professional control and modern healing techniques.

Conclusion

The morphology of the hospital form up until the sixteenth century saw a remarkable sway of constitution as it chronologically departed from pagan influence, into the hands of highly influential Christian values and clergy; only to be appropriated by the State for social order. By tracing the influence of the mythical gods, one true God, and finally the removal of God from the hospital environment, it is clear that within the former two spiritual influences a certain mystical aspect pertaining to suffering was always prevalent.

The pagan institution employed commonsense notions of healing, yet always viewed suffering in relation to a higher spiritual authority. When the ancient gods gave way to a singular divinity, the hospital still predominately remained a spiritually driven institution. The ecclesiastical institution revolved around the House of God, and although Christians, unlike the pagans, never believed that God provided cures through the human subconscious, the concept of a higher spiritual being touching our souls existed. In the Middle Ages, suffering was taken at face value, as part of the human condition, and it was ironically viewed as a necessary part of society for one to attain eternal salvation. Without suffering, the Christian could not perform his or her charitable act. For that reason, it could be said that suffering was created by the divine in order for humans to demonstrate themselves as faithful followers of God. To endure pain was human, it was a mark of inferiority that separated man from the divine—as the Son of God descended from divine ranks to become human in order to suffer for our sins²⁵—and to recover or to die was not entirely a matter of human intervention. Lastly, in the sixteenth century, with one swift blow, came the Reformation, a newly constituted state identity and the secularization of the hospital.

It is undeniable that the subordinated religious control of the hospital and the newly established state responsibility contributed to an ameliorable hospital administration and management. However, with the secularization of the hospital, spirituality no longer stood as the *genius loci* of the institution. Suffering would now lend itself to increased

scientific analysis and categorization that would contribute to its demystification. The hospital, which once stood as a primordial relationship of mankind with itself and nature was now directed towards modern medicine and an unfavourable concentration of knowledge in a privileged group.

Chapter Notes

- ¹ Ivan Illich, *The Limits to Medicine – Medical Nemesis: The Expropriation of Health* (London: Marion Boyars Publishers Ltd., 1976), p. 7. This definition by Illich provides an accurate, un-medical description of the often misconceived notion of health.
- ² Susan Sontag, *Illness as Metaphor* (Toronto: McGraw-Hill Ryerson Ltd., 1977), p.56. Here Sontag states that the increased categorization of illness has also contributed to the denial of death.
- ³ Isadore Rosenfield, *Hospital Architecture and Beyond* (Toronto: Van Nostrand Reinhold Company, 1969), pp. 21-22.
- ⁴ George Rosen, “The Hospital: Historical Sociology” *The Hospital in Modern Society*, ed. Eliot Friedson (New York: The Free Press of Glencoe, 1963), pp. 13-18. For the secularization of the hospital see his chapter on ‘The Medieval Hospital in Transition.’
- ⁵ Ivan Illich, *Health as One’s Own Responsibility—No Thank you!* Based on a speech given in Hannover, Germany, September 14, 1990. Translated by Jutta Mason, edited by Lee Hoinacki.
- ⁶ Rosenfield, *op. cit.*, p. 22.
- ⁷ John D. Thompson and Grace Goldin, *The Hospital: A Social and Architectural History* (New Haven: Yale University Press, 1975), p. 4.
- ⁸ Hippocrates (486-337 B.C.E) was an ancient Greek physician who contributed many medical writings, including a standard of practice known as the ‘Hippocratic Oath.’ He rejected the superstition and magical practices of primitive medicine, as he laid the foundations of medicine as a branch of science. His medical achievements have been noted by both Plato and Aristotle.
- ⁹ Cyril Bailey, ed., *The Legacy of Rome* (London: Oxford University Press, 1951), pp. 292-296. See for information regarding the emergence of the Roman medical institution.
- ¹⁰ Rosenfield, *op. cit.*, p. 22.
- ¹¹ Thompson and Goldin, *op.cit.*, p. 6.
- ¹² Rosen, *op. cit.*, p. 2; Lewis Richard Farnell, *Greek Hero Cults and Ideas of Immortality* (Oxford: Clarendon Press, 1921), pp. 234-279.
- ¹³ Rosen, *op. cit.*, p. 3.
- ¹⁴ Thompson and Goldin, *op.cit.*, p. 6.
- ¹⁵ *Ibid.*, p. 15-19. See for more information on the monastic hospital, includes various images and plans.
- ¹⁶ Rosen, *op. cit.*, p. 32.

- ¹⁷ Rosen, *op. cit.*, p. 12.
- ¹⁸ *Ibid.*, p. 12. “In 1935...the Parlement of Paris laid a fine of 10,000 livres on the Jews living there, of which 500 livres were to go to the Hotel-Dieu of Paris.”
- ¹⁹ *Ibid.*, p. 12.
- ²⁰ *Ibid.*, p. 13.
- ²¹ *Ibid.*, pp. 14-15.
- ²² Martin Luther, *Small Catechism* (St. Louis: Concordia Publishing House, 1943), p. 10.
- ²³ “Reformation,” *The Catholic Encyclopedia*, Volume XII. (Robert Appleton Company, 1911). “In the course of the fourteenth and fifteenth centuries arose the modern concept of the State. During the preceding period many matters of a secular or mixed nature had been regulated or managed by the Church, in keeping with the historical development of European society. With the growing self-consciousness of the State, the secular governments sought to control all matters that fell within their competence, which course, although in large measure justifiable, was new and offensive, and thus led to frequent collisions between Church and State.”
- ²⁴ Rosen, *op. cit.*, p. 14.
- ²⁵ This example is used outside of any religious preference. I use it similar to any mythological reference, however I find the story of Christ an appropriate example of divine intervention; becoming human in order suffer and ultimately die.

2

MODERN MEDICINE

AN EPIDEMIC

The evolution of the medical establishment and its culmination in state regulation—as discussed in the previous chapter—laid the ground work for what is now modern professional health-care. In Canada, health-care is considered a distinguished characteristic of the country’s national and international reputation. Such a social responsibility is an emblem of Canadian democracy, where all citizens’ rich and poor alike have access to medical services. In this country alone, the health-care and social service sector employs more than 1.5-million Canadians. Federal and provincial governments spend more than \$102-billion per year on health services annually. This spending accounts for about 9.3% of Canada’s gross

domestic product (GDP) and approximately \$3,300 spent on health care per person, per year.¹

A national priority to implement an adequate health-care system has given the medical profession the utmost faith and control in matters concerning the health of citizens. As a result, individuals are severely disengaged from the medical process because society favours a specialized and categorically defined approach to illness. The medical profession's control of health-care places little value on the natural defences of the human body and contributes to a social and cultural dependency on medicalized living. Since the hospital has facilitated these particular objectives of modern medicine, it can no longer be seen as the only architectural typology *par excellence* for promoting health and healing in society. The skyrocketing cost for hospitalization makes treatment away from the hospital an economical alternative. This, coupled with more responsible forms of medical treatments in less intense, architectural environments is an essential component of the continued evolution of the institution. This chapter will examine professional medical control, human desensitization, and the inversion of everyday life through institutionalization to prove that modern medicine and its counterpart, the hospital, are impeding the convalescent's potential to care for themselves.

Professional Control

As of 1707, the practice of medicine and education of doctors became regulated.² This brought an end to the debate of whether or not medicine could be a free practice of no

qualification. As a result, it was decreed law that “no person may practice medicine, or prescribe any remedy, even without payment, if he has not obtained the degree of *licencié*...and all religious, mendicant of non-mendicant, shall be and remain included in the prohibition laid down in the preceding article.”³ By establishing a concentration of medical knowledge and authority within an exclusive group, the medical profession proclaimed its success and assured society that “a free state that wishes to maintain its citizens free from error and from the ills that it entails cannot authorize the free practice of medicine.”⁴ As a subsequent outcome of this newly formed association, the hospital became dominated by professional medicine and was brought closer to the ameliorable condition required for professional health-care.

Since it can be said that well-being is correlated to the state of our inner corporal edifice, it is not surprising that the ideal portrayed through health-care is one that is essential to human well-being. The link between ‘wellness’ and health is obvious and because of this, society can affirm the importance and validity of established medical practices. Most people trust their doctors; so if a routine check-up shows some sign of illness, people will readily do what is recommended by their physician. The majority fail to question the medical profession and its unilateral power to determine who is healthy or not.

When he assigns sick-status to a client, the contemporary physician might indeed be acting in some ways similar to the sorcerer or the elder; but in belonging also to a scientific profession that invents the categories it assigns when consulting, the modern physician is totally unlike the [antiquated] healer.⁵

Therefore, doctors—who society highly regards as knowledgeable, impartial healers—are in charge of telling patients whether they are in fact unhealthy according to their own guidelines. Furthermore, they also determine what should be done about it. This leads to the potential of conflicts of interest in the medical profession. For example, doctors who prescribe drugs are formally required to take continuing education about new medications; but half of the funding for that education comes from the ever persuasive pharmaceutical industry.⁶ Separately, some research suggests that 90 per cent of doctors responsible for writing medical guidelines also have financial ties to the pharmaceutical industry.⁷ These are just a few of the many examples.

Currently, pharmaceutical companies continue to profit within the professional control of medicine; as a result, this industry is literally changing what it means to be human. The \$500-billion pharmaceutical industry is now “selling sickness.”⁸ Meantime, the prosperous associations between physicians and drug companies are making things worse. This is seriously affecting the advice given to patients and the way in which they deal with their illness.⁹ As people willingly allow drugs to affect their bodies, often according to a doctor-referred prescription, the professional control of medicine is inhibiting well-being as it effectively leads to a loss of healing autonomy for individuals who show a dependency on prescription drugs.

[For a human being] to take a drug, no matter which and for what reason—is a last chance to assert control over himself...The pharmaceutical invasion led him to medication, by himself or by others, that reduces his ability to cope with a body for which he can still care.¹⁰

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8 Increasingly targeted advertising by pharmaceutical companies is leading to increased prescribing. *Lunesta*. 2006. 18 Aug 2006. <<http://www.lunesta.com>>

In today's society, strangers are often culturally considered to be unhealthy until proof of their health is provided. This increased social paranoia represents an increasingly precautionary attitude towards health, which within the practice of medicine, has generated a trend of over-medicalization. Some doctors are increasingly diagnosing patients, recommending medical treatment and sometimes based on no reason other than sheer prudence. In a diagnostic survey conducted in New York based on 1,000 grade-school children, the following was observed:

61 percent [of the children] were found to have had their tonsils removed. The remaining 39 percent were subjected to examination by a group of physicians, who selected 45 percent of these for tonsillectomy and rejected the rest. The rejected children were re-examined by another group of physicians, who recommended tonsillectomy for 46 percent of those remaining after the first examination. When the rejected children were examined for a third time, a similar percentage was selected for tonsillectomy so that after three examinations only sixty-five children remained who had not been recommended for tonsillectomy. These subjects were not further examined because the supply of examining physicians ran out.¹¹

The intent here is not to deny the good meaning behind the preventive measures recommended by physicians, but to question the generally-accepted process of increasing reliance on suspicion and diagnosis of patients. As study after study has determined, with each diagnosis given —whether verifiable or not— physicians displace their patients from normal and healthy society, submitting them to a specialized authority that causes apprehension.¹²

The effect that professional medicine is having on people has not gone unnoticed. A notable antagonist to the medicalization of life, Ivan Illich, has written a diatribe addressing the clinical, social and cultural issues tied to the medical profession.

According to Illich, certain counter-productivity or more seriously an epidemic that is threatening the autonomy of our own bodies exists within medicine today.¹³ He calls this disabling effect of professional control over medicine *iatrogenesis*. Rooting in the Greek word for origin (*genesis*) and physician (*iatros*), *iatrogenesis* is a doctor-originating or doctor-made disease that results from any therapeutic procedure; be it prescribed drugs, diagnosis, or institutionalization.

Iatrogenesis is clinical when pain, sickness, and death result from medical care; it is social when health policies reinforce and industrial organization that generates ill-health; it is cultural and symbolic when medically sponsored behaviour and delusion restrict the vital autonomy of people by undermining the competence in growing up, caring for each other, and aging, or when medical intervention cripples personal responses to pain, disability, impairment, anguish, and death.¹⁴

Illich describes the modern medical institution as a paradoxical one, as a “sick-making enterprise.” And since society has given the medical profession the exclusive right to

determine who is and is not sick and what should be done about it, the common man has lost his sensibility towards the truth of the human condition.

A technological wave—that many believe can alter the human condition—has redirected individual care for health to the medically elite. Deciding to face illness as a personal endeavour now seems primitive thanks to a political system that believes professional health-care, not self-care, is fundamental to the well-being of the individual and society. This dismissive attitude towards self-care undermines innate survival instincts, making patients spectators of their own treatment and increasing their dependence on specialized care. As life becomes increasingly medicalized and society places a smaller value on accepting the human condition and independently conquering suffering, “health-care has become a commodity, something that one pays for rather than something one does.”¹⁵

Human Desensitization

Suffering and death in western society is commonly viewed as the adversary to well-being, and consequently major efforts are expended to minimize pain rather than maximize happiness. It seems that an excessive preoccupation with professional health-care has affected individual suffering by associating discomfort and pain with a categorical illness that must be dealt with in a specialized manner. The pain-killing mentality offered by so many health-care professionals has inadvertently interfered with common life experiences.

With rising levels of induced insensitivity to pain, the capacity to experience the simple joys of life has equally declined. [As a result,] increasingly stronger stimuli are needed to provide people in an anaesthetic society with any sense of being alive.¹⁶

In order to address health and healing in a manner that contributes to human well-being, it is fundamental to address the truth of our human condition: “I suffer pain; I am afflicted with certain impairments; I will certainly die.”¹⁷ The human being is a fragile, individualistic entity that consciously experiences pain, sickness and death. Therefore, it can not be forgotten that an art of living not only includes the art of healing, but also the art of suffering and dying. According to Freud:

life is dominated by a regressive compulsion, a desire to return to the womb. This striving for integral gratification dominates all subsequent life...the drive toward equilibrium that results is none other than a “continuous descent toward death,” where death finally provides that longed-for resolution and quiet.¹⁸

One innate characteristic that has been lost through human desensitization is the importance of experiencing pain. The influential seventeenth century philosopher and mathematician Gottfried Leibnitz said that “the great engineer of the universe has made man as perfectly as he could make him, and he could not have invented a better device for his maintenance than to provide him with a sense of pain.” Today, pain is so quickly suppressed and regarded as discomfort-to-be-alleviated, that it also has become medically expropriated. Pain in a medicalized society is no longer experienced beyond a physical manifestation, as something that represents an unmitigated evil or a natural flaw in nature. Instead of accepting pain as a reality and learning to cope with it, man has become increasingly sensitive to every ache and pain. Often the consequences to this

sensitivity to pain are under developed survival instincts and neglected possibilities for autonomous healing.

Illich describes healing as an individual virtue, and “success in this personal task is in larger part the result of the self-awareness, self-discipline, and inner resources by which each person regulates his own daily rhythm.”¹⁹ Man gains this knowledge from the example of peers and elders, “encompassing desirable activities, competent performance, [and] the commitment to enhance health in others.” Furthermore, these personal activities “are shaped and conditioned by the culture in which the individual grows up: patterns of work and leisure, of celebration and sleep, of production and politics.” In essence, our health is partially dependent on the stability of daily patterns and the knowledge gained through communal relations.

Inverting the Everyday

Contemporary society has emerged from a century that was characteristically progressive through technological innovation. The general public is increasingly losing touch with many antiquated practices of a seemingly primitive past and placing a new faith in awe-inspiring gadgetry. Technology, much like health-care, is being commoditized and relied upon to assist man and make his life better. This often generates negative solutions like institutionalization, which deviates further from any connection to the human condition. The correlation between a dependency on technology and professional health-care is no coincidence, as the two are inseparably linked. But the question still remains whether

professional health-care—with all its inherent technological progression—is making us healthier, smarter, and more efficient, opposed to lazy, sick and incompetent.²⁰

Many have forgotten—or are no longer able to enjoy—those commonsense ways of living that contribute to one's well-being and ability to recover from illness. Many have allowed themselves to become dependent on a self-aggrandizing technological myth, against which they nevertheless complain, because of the impersonal ways in which it impoverishes many while enriching a few.²¹

Institutionalization is an initial solution employed by modern medicine to battle sickness and death. But, within the hospital environment there is little encouragement for an individual to take an active role in caring for himself. To enter a hospital as a patient is analogous to imprisonment: it requires stripping down to nothing but a generic night-gown, often being confined to a room containing at least one other patient, and receiving treatments that can seem completely foreign. Such disruptions to everyday life combined with an absence of the familiar, make the hospital seem rather diabolical for its intended use as it is frequently designed for medical staff and not patients.

The everyday is that which repeats itself and, according to Henri Lefebvre, occurs in two different repetitive modes:

the cyclical, which dominates in nature, and the linear, which dominates in processes know as “rational.” The everyday implies on the one hand cycles, night and day, season and harvest, activity and rest, hunger and satisfaction, desire and its fulfillment, life and death, and it implies on the other hand the repetitive gestures of work and consumption.²²

Lefebvre's theories of the everyday deal with the progress—both technological and political—and sociology associated with modern life. Lefebvre's perception of the everyday as a critical totality of social life is fundamental to his critique of the everyday

life; thus, in order to understand the everyday, it must be pluralistically approached precisely because the everyday is not a 'thing,' it is a totality of relationships. This 'totality' can be broken down into parts of a structure, with the condition that the parts represent a social commonality. According to Lefebvre, the universal structure of the everyday consists of the following constituent parts: *work, leisure, family life* and *private life*.²³

Little attention is paid to the elements that constitute people's everyday lives within the hospital environment. Displacing a person from their everyday routines immediately reduces the possibility for a patient to heal autonomously because they are disconnected from the familiar rituals of everyday life. Hospitals are not homely environments that support a normal lifestyle and family functioning; they are factories for the practice of professional medicine. Most hospital architecture focuses on functionally complementing modern medicine. This only significantly benefits the patient through the scientifically based treatments contained within. It is important to our well-being to consider alternatives for healing architecture. This is not to reject the hospital, but to understand the potential that exists in architecture that heals, not just a building that contains space for professionally implemented treatment.

Conclusion

Health-care as a commoditized system that is controlled solely by a group of specialized individuals is damaging to human well-being. In addition, the architecture associated

with healing needs to be alternatively explored to focus primarily on a more-human, corporal environment; thus, addressing the real needs of its patients and not the profession that oversees them. It is time that we look to a lost past, when people understood the primacy of their human condition as fundamental to health and overall well-being. With the overwhelming technological development of the last century, the primordial human aspects associated with healing have been lost within the medical profession. For this reason, modern medicine needs to be challenged; medical professionals need to insightfully step back and analyze where the industry has gone in order to re-evaluate health-care on the basis of primary human concern.

Everyday life and self-care are two interdependent concepts that can provide an alternative to professionally controlled health-care. Architects should take a closer look at the elements that make up the comforts of home to see how hospitable and appropriate they can be for the real needs of living and healing. To understand that health is a personal endeavour is essential, but to understand that it is often maintained through learned experience of no particular specialization is fundamental. Within the banality of the everyday, there is a hidden richness that offers architecture the potential to function as an influential healing environment. Through architecture, the possibility exists to make the concealed visible, to be able to heighten the ordinary fragments of everyday life, thus representing a living totality. In doing so, an alternative healing architecture can

promote self-care to inhabitants and reveal human nature manifested through a delicate intensity of sensorial engagement.

Chapter Notes

- ¹ Canadian Institute for Health Information (2002): Health care in Canada 2002, accessed April 2006.
<http://secure.cihi.ca/cihiweb/dispPage.jsp?cw_page=AR_43_E`&cw_topic=43>.
- ² Michel Foucault, trans. A.M. Sheridan Smith, *The Birth of the Clinic: An Archaeology of Medical Perception* (New York: Pantheon Books, 1973), pp. 44-52.
- ³ *Ibid.*, p. 45.
- ⁴ *Ibid.*, p. 46.
- ⁵ Ivan Illich, *op. cit.*, p. 119.
- ⁶ Ray Moynihan and Alan Cassels, *Selling Sickness* (Vancouver: Greystone Books, 2005), pp. 5-7.
- ⁷ N.Choudry, H.Stelfox and A. Detsky, "Relationships between authors of clinical practice guidelines and the pharmaceutical industry," *JAMA*, vol. 287, no. 5, 2002, pp. 612-17.
- ⁸ Ray Moynihan and Alan Cassels, *op. cit.*, p. xi - xx.
- ⁹ Ray Moynihan and Alan Cassels, *op. cit.*, p. 5. "The industry's influence over doctors' practices, medical education and scientific research is as widespread as it is controversial—not just distorting the way physicians prescribe medicines but actually affecting the way conditions like 'high cholesterol' are defined and promoted."
- ¹⁰ Ivan Illich, *op. cit.*, p. 51.
- ¹¹ *Ibid.*, p. 93.
- ¹² Ray Moynihan and Alan Cassels, *op. cit.*, pp. 32-33. Based on research at the Monash Medical Centre in Melbourne.
- ¹³ *Ibid.*, pp. 3-9.
- ¹⁴ Ivan Illich, *op. cit.*, p. 270.
- ¹⁵ *Ibid.*, p. 89.
- ¹⁶ *Ibid.*, p. 152.
- ¹⁷ Ivan, Illich, trans. Jutta Mason, ed. Lee Hoinacki, *Health as One's Own Responsibility -No Thank you!* (Based on a speech given in Hannover, Germany, September 14, 1990), p. 7.
- ¹⁸ Neil Leach, "Vitruvius Crucifixus: Architecture, Mimesis, and the Death Instinct" ed. George Dodds and Robert Traveron, *Body and Building : essays on the changing relation of the body and architecture* (Cambridge: MIT Press, 2002), p. 215.
- ¹⁹ Ivan Illich, *op. cit.*, pp. 273-75.
- ²⁰ For further reading see: Stefanie Olsen, "Intelligence in the Internet age," (2005) *CNET News.com*, accessed July 2006.
<http://news.com.com/Intelligence+in+the+Internet+age/2100-11395_3-5869719.html>
- ²¹ Ivan, Illich, trans. Jutta Mason, ed. Lee Hoinacki, *op. cit.*, p. 7.

- ²² Henri Lefebvre, trans. Christine Levich, "The Everyday and Everydayness" *Architecture of the Everyday*, ed. Deborah Berke and Steven Harris (New York: Princeton Architectural Press, 1997), p. 36.
- ²³ Henri Lefebvre, trans. John Moore, *Critique of Everyday Life* (London: Verso, 1958), p. 38-42.

3

SENSORY PERCEPTION

AN ENGAGING EXPERIENCE

As noted in the previous chapter, in breaking down the ‘totality of the everyday,’ it is a prerequisite that each component be viewed as part of a commonality; wherein the concept of ‘engagement’ could be isolated as a constituent of that totality because the everyday life of individuals will involve an engagement. This could be in the form of social encounters like a business meeting, running into someone on the street, or simply coffee with friends. Heidegger explains that the concept of engagement is what characterizes our everyday involvement the world. Therefore, the everydayness of life can be viewed as a cyclical continuum that constitutes our being-in-the-world precisely because man was placed in this world. He dwells within it, and

interacts with it and its other living creatures.¹

It is important, however, not to isolate the concept of engagement solely to human-to-human interaction. Engagement also pertains to the objects we use and to the 'things' that spark responses from our senses of sight, sound, touch, taste and smell. Sensory perception is the awareness of environmental conditions, and it is a determinate factor to whether we feel comfortable or restless. Engagement with the 'things' around us registers with our human senses and provokes us to respond in a manner that is within the experience of each individual. Within healing architecture, it is essential that the environment encourages a positive sensory perception that entices acknowledgment of the human condition within the rhythm of everyday life. In doing so, architecture can heal the body through an ensouling environment that transcends modern medical treatment and improves health in a much less intrusive manner. This chapter will examine the sensorial possibilities found through the use of tranquility in darkness, colour enchantment, and material sensuality in order to show the potential for a curative architectural environment that can provide a humanized alternative to mere modern medical care.

Engagement

In *Being and Time*, Heidegger describes engagement in the world in terms of different relationships between people and their tools. According to Heidegger, all everyday

actions can be categorized within a trinity of engagement known as: *present-at-hand*, *ready-to-hand*, and *unready-to-hand*.²

Present-at-hand interaction represents an abstract form of engagement, where a person finds an object as it is without any interpretation as to its function or usefulness. Here, engagement is objectively based, as a spectator looking at an object impartially, and is seen as less involved than the other two forms of engagement.³

Conversely, *ready-to-hand* describes our engagement with objects that we understand through their use. When we are engaged with something that is *ready-to-hand*, the 'thing' habitually goes unnoticed because it is seen as an extension of the body. For example, when a person is said to be healthy, his body is *ready-to-hand* precisely because it works perfectly without any modification or conscious thought. The silence of his internal edifice seemingly constitutes his health and therefore is *ready-to-hand*. Similarly, if an able-bodied person succumbs to a serious injury and is left disabled, his engagement with his body will not return to *ready-to-hand* until he has acquired a skill that allows him to function with that disability without any additional thought.

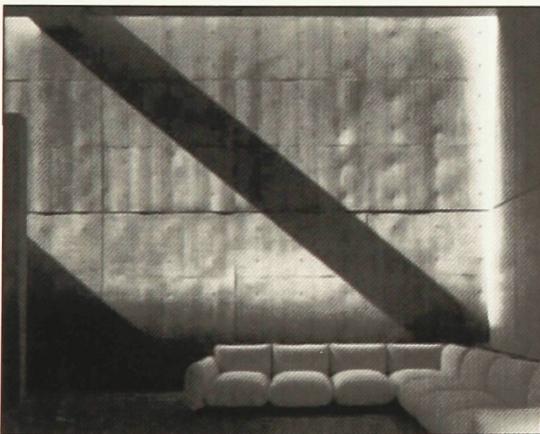
It is precisely when something breaks down, when one notices that an object is 'unready-to-hand.' For example, if an individual notices pains in his chest and is unable to function normally, he has established an *unready-to-hand* engagement with his body. This situation is often problematic because the person loses the mastery of his body experienced during his *ready-to-hand* condition. However, engagement that is *unready-*

to-hand can be viewed as a revealing tool. This type of engagement can trigger an examination of objects and elements from different perspectives, which were previously taken for granted.

Ultimately, ready-to-hand and unready-to-hand engagement deals with the familiar going unnoticed and failings of the familiar leading to heightened awareness. For the latter, Ben Highmore suggests that:

Before familiarity can turn into awareness the familiar must be stripped of its inconspicuousness; we must give up assuming that the object in question needs no explanation. However frequently recurrent, modest, vulgar it may be it will now be labelled as something unusual.⁴

Engaged involvement provides a way of seeing the world, and sets up possibilities through which perceptible meaning can be attributed to everyday life. Within a healing environment, the bodily engagement of the sick can be seen as unready-to-hand. The familiarity of one's body is precisely "stripped of its inconspicuousness" through illness. Because of this, the sick have deviated from the common "taken for granted" state of ready-to-hand to a highly sensitive bodily awareness. It is within this new attentive state



9 Koshimo House by Tadao Ando. *Tadao Ando* (The Museum of Modern Art: New York, 1991), p. 28.

that there is the potential for the enchantment of human senses as a solution towards humanizing modern hospital design and providing alternative healing environments.

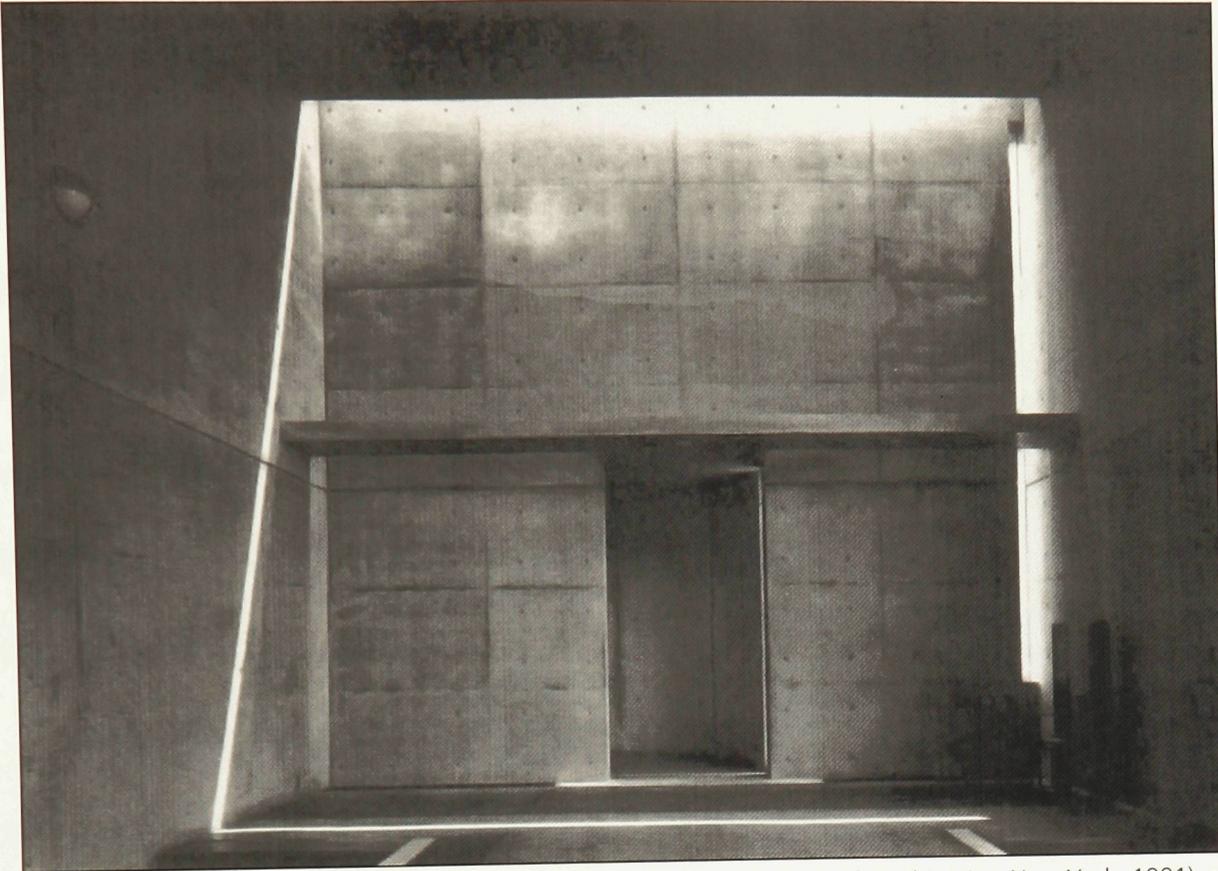
Tranquility in Darkness

Louis Kahn said that, "the sun never knew how

wonderful it was until it fell on the wall of a building.”⁵ This wonderfully poetic statement is an inspiration to any work of architecture. Light is undoubtedly essential to any building, and it has been proven time and time again that natural light produces environments and spaces that are more pleasurable to people, and significantly contributes to the efficacy of the work atmosphere. Yet this preoccupation with light has also contributed to giving a gloomy disposition to any space that does not receive a proper amount of illumination.

In the western world, darkness is far from being anywhere near the illustrious status held by natural light. Evidently, darkness has become associated with undesirable and uninhabitable places such as alleyways, storage basements, and attics. Therefore, in order to search for a meaningful aesthetic understanding of darkness it would only seem proper to look to a culture that embraces darkness and regards it as fundamental to understanding a true perception of light. In Japanese culture, one can find a cherishment for darkness and an example of this is seen through the beliefs of Japanese architect Tadao Ando:

Light, alone does not make light. There must be darkness for light to become *light*—resplendent with dignity and power. Darkness, which kindles the brilliance of light and reveals light’s power, is innately a part of light. Yet the richness and depth of darkness has disappeared from our consciousness, and the subtle nuances that light and darkness engender, their spatial resonances—these are almost forgotten...Light, whose beauty within darkness is as of jewels that one might cup in one’s hands; light that, hollowing out darkness and piercing our bodies, blows life into “place.”⁶



10 Chapel on Mt. Rokko by Tadao Ando. *Tadao Ando* (The Museum of Modern Art: New York, 1991), p. 36.

Darkness within Japanese tradition is frequently preferred to any sort of brightness, and an unknown beauty that the West rarely experiences has grown out of that. According to the novelist Jun'ichirō Tanizaki:

Modern man, in his well-lit house, knows nothing of the beauty of gold; but those who lived in the dark house of the past were not merely captivated by its beauty, they also knew its practical value; for gold, in these dim rooms, must have served the function of a reflector.⁷

Within darkness lies the potential to turn a simple room into a world of shadows that casts into mysterious depths. The sensory richness of darkness and shadow is far more mystical and contemplative than a brightly lit room, and it can even produce a therapeutic moment in the most utilitarian of places. Tanizaki explains:

Every time I am shown to an old, dimly lit, and, I would add, impeccably clean toilet in a Nara or Kyoto temple, I am impressed with the singular virtues of Japanese architecture. The parlour may have its charms, but the Japanese toilet truly is a place of spiritual repose...No words can describe that sensation as one sits in the dim light, basking in the faint glow reflected from the shoji, lost in meditation or gazing out at the garden.⁸

For Westerners, it is common that the only therapeutically experienced darkness is those precious few moments that one lays horizontally before falling asleep. This darkness is undeniably desired for a proper nights sleep, yet still, it seems in the West—especially in North America—that we are unable to comprehend the therapeutic potential and mystical nature of darkness.

The delight within darkness in Eastern culture is an attitude that can serve to alter and question the way designers conceive institutions like hospitals. For instance, every room in a hospital does not need to be so brightly lit and sparkling white in order to achieve sanitation; there seems to be an underlying belief that the fluorescent lighting is acting as a sort of disinfectant.⁹ The hospital environment does not benefit from these conditions that evoke sterility and institutionalization because these characteristics are a major source of fear and discomfort for the patient. Alienation within the hospital is not conducive to convalescent care, just as “the child who reacts against the institutionalism of the school does not learn; [and] the child who reacts against the institutionalism of the orphanage does not develop the equivalent capabilities of a child reared at home.”¹⁰

It is through darkness that we can recover a mystical nature that has been lost with the scientific rationality of modern medicine. Furthermore, the hospital can become a

place of tranquility where the sensory perceptions of the convalescent are constantly in harmony.

Colourful Enchantment

It would be wrong to discredit natural light in the hospital, as a view to the outdoors has been proven to shorten the recovery time of patients.¹¹ Light is life giving, and especially in the case of health-giving architecture it should be essential. However, this is an obvious architectural concern that all designers hopefully would address. What is often forgotten or even overlooked—especially in the design of hospitals—is the use of colour.

Within their everyday lives, people are bombarded with an array of colours. These colours vary from those that nature has provided to those increasingly presented through the symbols and signs of our mass-media culture. But, despite the ubiquity of colour around us and due to a sanitary efficacy, the convalescent are commonly denied sensory pleasure. The bright white walls of the hospital corridor, the neutral, contrast-free patient rooms, and the bleached uniforms of hospital staff are enough to make any patient feel uncomfortable and alienated from everyday life. This is not to say that simply splashing colour on the walls would suffice in provoking the patient senses; if anything, without proper attention this will likely aggravate a patient's negative feelings. The following study examined the affect of natural colour settings and abstract colour images on patients:

One hundred sixty patients in intensive care units were each assigned one of six pictures mounted at the foot of their bed: two types of representational nature scenes,

two types of abstract pictures with colours comparable to the nature pictures (blues and greens), or two control conditions (either a white panel or no picture). Results showed that patients exposed to a landscape picture with water, trees and high visual depth suffered much less anxiety and pain than persons assigned to any of the other picture or control conditions. An unexpected finding was that an abstract picture dominated by straight-edged forms worsened outcomes more than if patients had no picture at all. A subset of patients had strongly negative reactions when looking at this abstract, necessitating its immediate removal.¹²



11 Chapel at La Tourette by Le Corbusier. *The Monastery of Sainte Marie de La Tourette* (Birkhauser: Switzerland, 2001), p. 17.

The general population regularly experiences a ready-to-hand engagement with colour in everyday life. For example, the red and green flash of traffic lights hardly affects us beyond giving a command. Therefore it is not uncommon to think, “I stop when the lights are red and keep going when they are green, and I don’t give it a moment’s thought.”¹³ Colour here constitutes a binary code of ‘stop’ and ‘go.’

For the sick—who engage their bodies as unready-to-hand and dispose of the thoughtlessness of ready-to-hand engagement—colour should not be presented in a confrontational manner. A direct visual blast could seriously affect the physiological temperament of the patient. Rather, following

in the footsteps of the Eastern beauty found in darkness, colour should also emanate indirectly with subtleness and warmth and in a manner that can bring about a mystical glow.

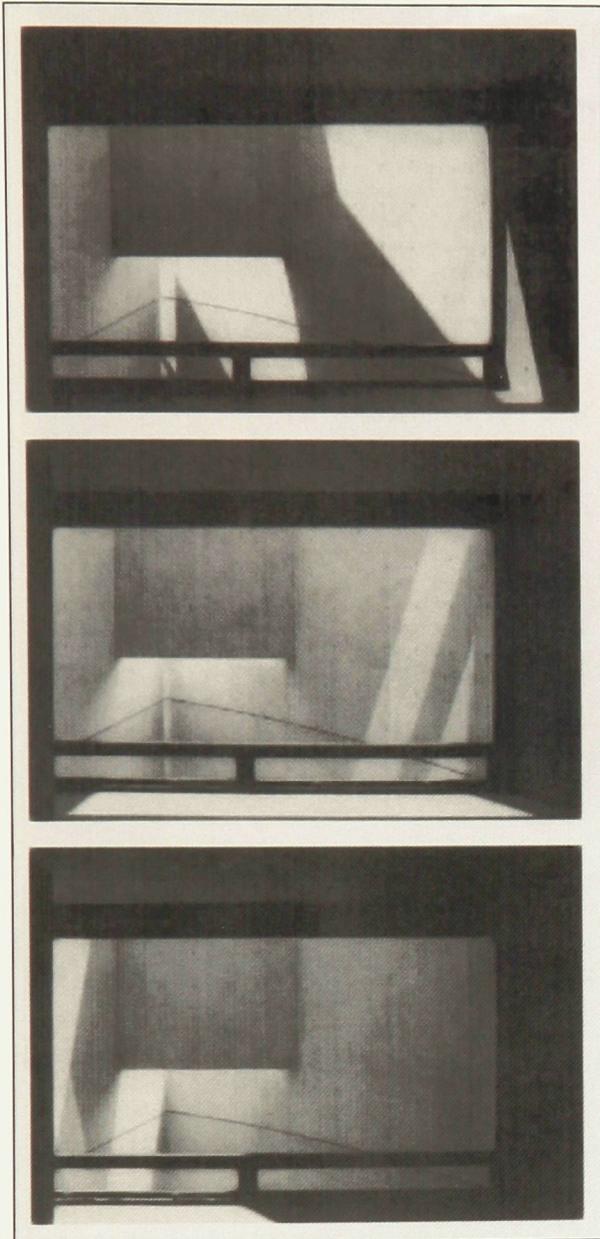
In the monastery La Tourette by Le Corbusier, we see an example of such an enchantment of colour so masterfully achieved. With deep concrete window wells, and turret-like skylights painted in primary colours, Le Corbusier permits natural light to penetrate the dimly lit chapel of the monastery. As a result, the pure stream of light seemingly acquires pigmentation as it travels, producing a colourful and supernatural glow. Although this application of colour is only used in the chapel at La Tourette, it is a perfect example of how the symbiosis of colour and the darkness of a space can transform a simple, concrete, rectangular box into a mystifying environment; one that has shadowy depth and is spiritually uplifting through a seemingly supernatural illumination of colour.

Material Sensuality

Materials are the ingredients architects use to produce space and as a result, these materials influence our bodies, our emotions, and our spirit.

All materials have individual qualities. Wood is warm, redolent of life even though the tree is long felled; brick still has, to touch and eye, some of the warmth of the brick kiln; steel is hard, cold, bearing the impress of the hard, powerful industrial machines that rolled or pressed it; plastic has something of the alien molecular technology of which it's made.¹⁴

It is a well-known fact that our engagement with typical building materials rarely constitutes a tactile sensibility. “The tendency of technological culture to standardize environmental conditions and make the environment entirely predictable is causing a



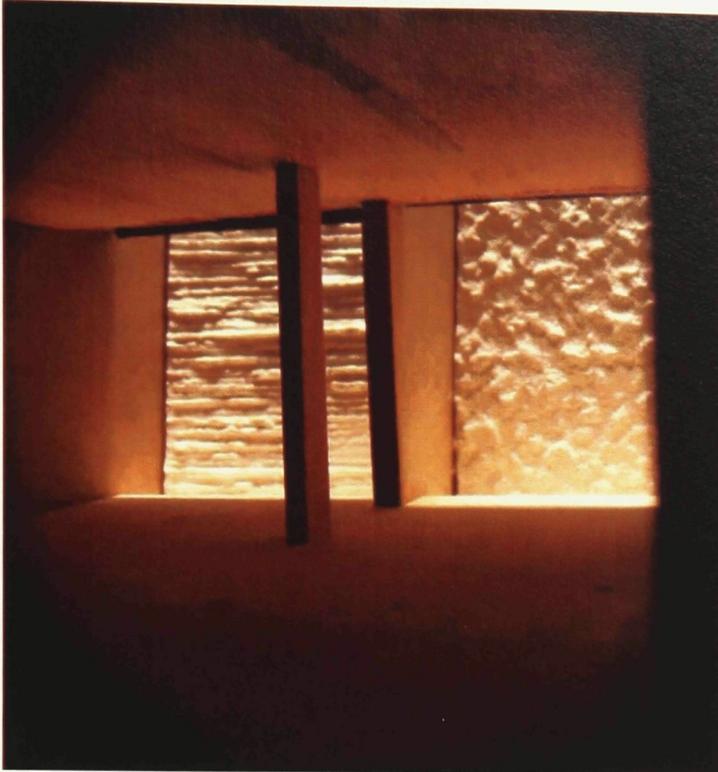
12 Atelier in Osaka by Tadao Ando. View of light court at 10 am, 12 noon and 1pm. *Tadao Ando* (The Museum of Modern Art: New York, 1991), p. 10.

serious sensory impoverishment. Our buildings have lost their opacity and depth, sensory invitation and discovery, mystery and shadow.”¹⁵ The materials most often used in construction have become so common and consequently mundane that they no longer trigger our sensorial system; the use of more unique materials is often restricted by limitations derived from industrial processes, construction efficiency, durability and cost.

Unlike darkness and light, which entices our sense of sight, materiality affects a wide range of human senses. We see materials, but we also feel them, often smell them, and they even dampen or amplify the sounds we

hear. But beauty in materials is not simply reliant on the individual characteristics of that material, as it can be dramatically enriching through its play with light and shadow (fig. 13).

Light and matter is the greatest of architectural polarities - the polarity of cosmos and substance, on bringing enlivening, renewing rhythms, the other stable, enduring,



13 Light-well study with textured materials. Wood, plaster, and metal.

rooted in place and time. This polarity is the foundation of health-giving architecture, for the oneness of stability, balance and renewal underlies health.¹⁶

This analogy to health highlights the importance of materiality in a healing environment. It is not a simple matter of selecting materials for the walls, floors and ceilings of a building, but rather the careful and thoughtful execution of materials engaging

the qualities of the environment. Permanence within materials and ephemeral conditions of light and shadow can produce a dramatic sensory condition that unites the tangible with the intangible. Such haptic experiences evoke a temporal continuum that not only acknowledges material qualities, but “promotes slowness and intimacy, appreciated and comprehended gradually as images of the body and the skin.”¹⁷ In this way, materials can lose a phenomenological rigidity inherent to their composition and can become animated with the spirit of the seasons and the rise and fall of the sun.

Such a dramatic and sensual effect could effectively be achieved through the textured surfaces of materials. One can use formed materials such as concrete and plaster to open the field of textural richness to great creative potential. In addition, replacing a flat,

smooth surface with a textured one, can turn a rather cold and monolithic material like concrete into a delightfully sensual surface that rejoices in the rays of light that fall upon it.

Conclusion

More often than not, the hospital environment is intimidating, unpleasant, and if that is not enough, adds to the discomfort of procedures and treatments employed by modern medicine. The engagement of the sick within this kind of atmosphere is unquestionably detrimental to their situation and can prolong illness. If the sick are highly sensitive to their surroundings, grouping them in sterile containers and invading their bodies seems hardly the only effective approach. Architecture, like medical knowledge, has evolved since the beginning of humankind, and although these streams of knowledge may seem—on the surface—to be unrelated, they both share a fundamental relationship with the human body.

In general, healing can not occur without treating the soul, but modern medical institutions are soulless in their inability to embrace human characteristics. Our senses are part of what makes us human, and to heal we need sensory stimulation to remind ourselves that we are exactly that: human.

The healing environment should be a highly refined one, with anthropomorphic features that bring comfort into the experience of an ailing body. With masterful, creative use of sensorial elements such as tranquility in darkness, colour enchantment

and material sensuality, architecture can bring new light to the highly scientific and categorical methods of modern medicine. Such sensorial elements should be used in combination, and through this unified application they will mystify, delight and bring new meaning to convalescent care. In the modern era, architecture has played an increasingly passive role in the healing process, but through these engaging sensory experiences, it can again reveal its potential for relieving the suffering that so characteristically makes us human.

Chapter Notes

- ¹ D. Palmer, *Looking at Philosophy: the unbearable heaviness of philosophy made lighter*, Second Edition (California: Mayfield Publishing Company, 1994), p. 337. Heidegger argued that being-in-the-world entails being-with-others, and it is essential that we acknowledge the Dasein of others.
- ² Martin Heidegger, trans. John Macquarrie and Edward Robinson, *Being and Time* (Blackwell Publishing Ltd, 1962), pp. 102-107.
- ³ In critiquing everyday life, Henri Lefebvre faulted the abstract and methodological philosophies of emerging structuralist and semiotic writings. At the foreground of his criticism was that the everyday is far from abstract; it is particular and concrete, and therefore must be lived in order to be understood.
- ⁴ Ben Highmore, *The Everyday Life Reader* (New York: Routledge, 2002), p. 21.
- ⁵ Jun'ichirō Tanizaki, trans. Thomas Harper and Edward Seidensticker, *In Praise of Shadows* (London: Jonathan Cape, 1991), pp. ii.
- ⁶ Tadao Ando, "Light" Tadao Ando, *Complete Works*, ed. F. Dal Co. (London, 1995), p. 471.
- ⁷ Jun'ichirō Tanizaki, *op. cit.*, pp. 36-37.
- ⁸ *Ibid.*, p. 13.
- ⁹ D. Weatherall, "New light on light" *Management Services*, September 1987, p. 30. These humming lights actually increase levels of cortisol (stress hormone) and ACTH (growth hormone and source of adrenaline) increasing stress and distorting development in children.
- ¹⁰ Rosyln Lindhiem, Helen H. Glaser, and Christie Coffin, *Changing Hospital Environments for Children* (Cambridge: Harvard University Press, 1972), p. 1.
- ¹¹ Byran Lawson, "Healing Architecture" *The Architectural Review*, March 2002, p. 74; Roger Ulrich, "View through a window may influence recovery from surgery" *Science*, 224 (1984), pp. 420-421.
- ¹² Roger Ulrich. Presentation (2003). "Design Guideline: Incorporate Nature to Reduce Stress and Improve Outcomes," *The Effect of Healthcare Architecture and Art on Medical Outcomes*, 10 Aug 2006.
<http://www.publicartonline.org.uk/archive/reports/ulrich_presentation.html>
- ¹³ Henri Lefebvre, trans. John Moore, *The Critique of Everyday Life*, Volume II (New York: Verso, 2002), first published as *Critique de la vie quotidienne II* (1961), p. 278.
- ¹⁴ Christopher Day, *op. cit.*, p. 168.

¹⁵ Juhani Pallasmaa, "Hapticity And Time - discussion of haptic, sensuous architecture," *The Architectural Review*, May 2000, p. 78.

¹⁶ *Ibid.*, p. 182.

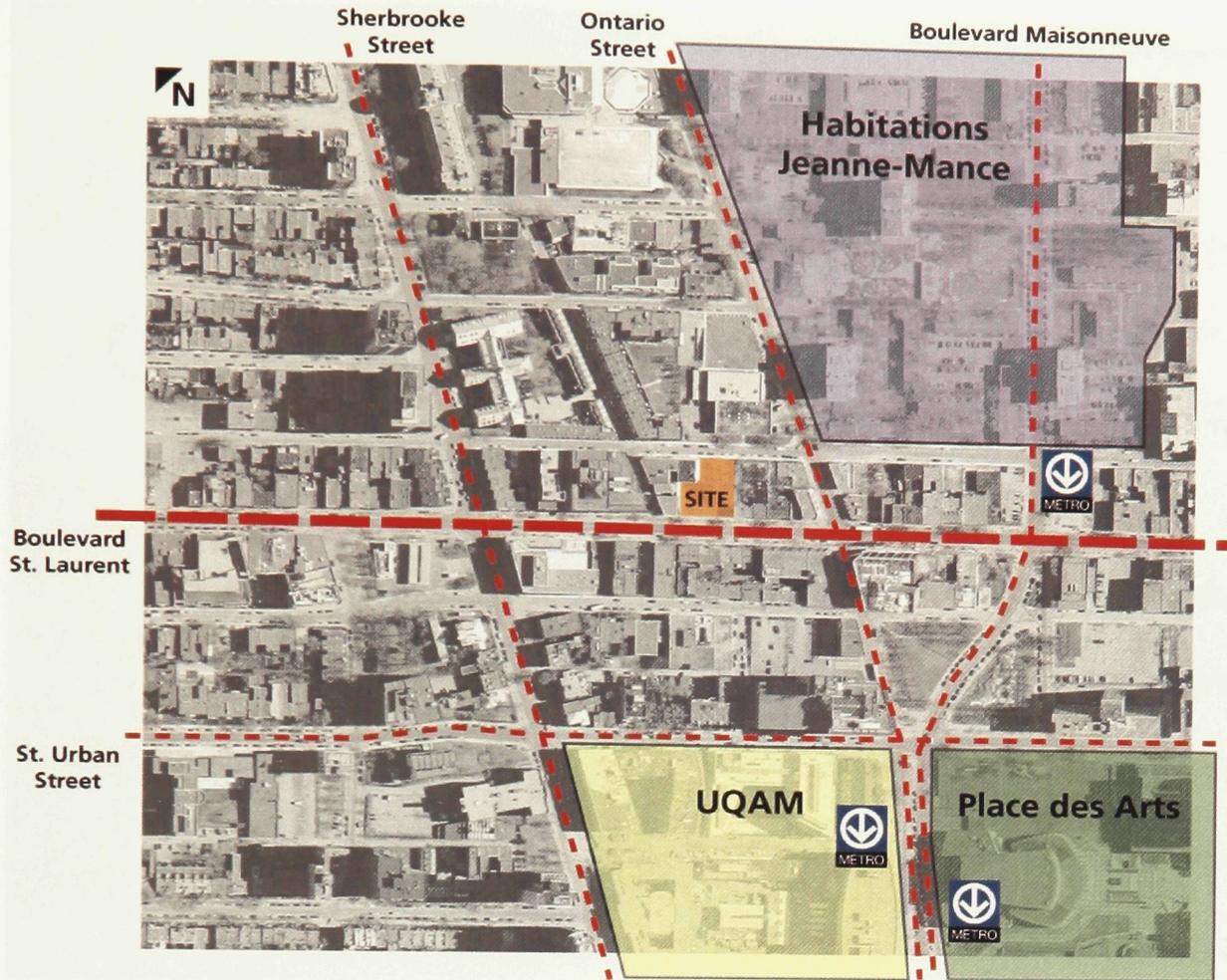
¹⁷ Juhani Pallasmaa, *op. cit.*, p. 78.

4

EUDEMONIC ARCHITECTURE

AN ADOLESCENT HEALING CENTRE ON THE MAIN

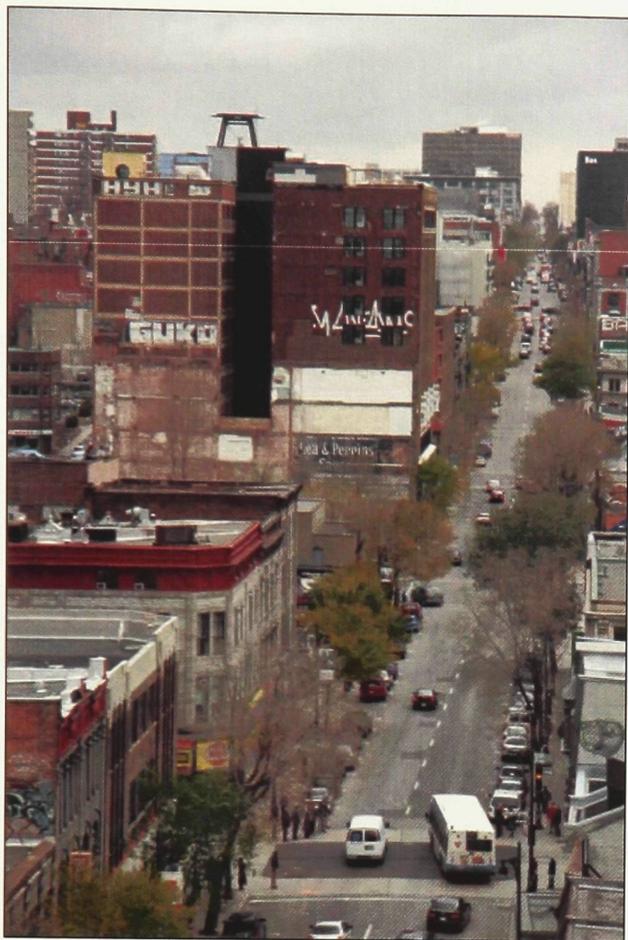
Marking the culmination of this theoretical investigation, the resulting architectural project for this thesis represents an evolution towards an innovative design for a progressive health-care environment. The discourse presented within this thesis needs to be contended with by taking an augmented approach, requiring the attention of a wide-range of stakeholders including architects, doctors, psychologists, sociologists, and governments. For the purposes of this architectural investigation, the proposition of an alternative youth healing environment, herein referred to as the *Adolescent Healing Centre*, can be seen as an instigating step in a new direction that begins



14 Context diagram showing transportation infrastructure and major zones.

to address the identified concerns within professional medical care.

The genesis of the *Adolescent Healing Centre's* design was largely dependent on its contextual situation and required the careful examination of potential sites and their surrounding communities. The main objective was to create a space that not only aided in healing the convalescent, but also regenerated its surroundings. It required a diligent approach in order to select an appropriate building site that generated a symbiotic well-being between the context, the community and building.



15 Looking up Boulevard St. Laurent from Boulevard Rene-Levesque.

Contextual Overview—Boulevard St. Laurent, Montreal

Boulevard St. Laurent has always been Montreal. Its mosaic culture and history has become symbolic of what it means to be Canadian. Its origins root back to the medieval fortified city of Montreal, where it served as a major artery for trade and provided a rural community to farmers. As Montreal exploded beyond the confines of the ‘walled city,’ Boulevard St. Laurent

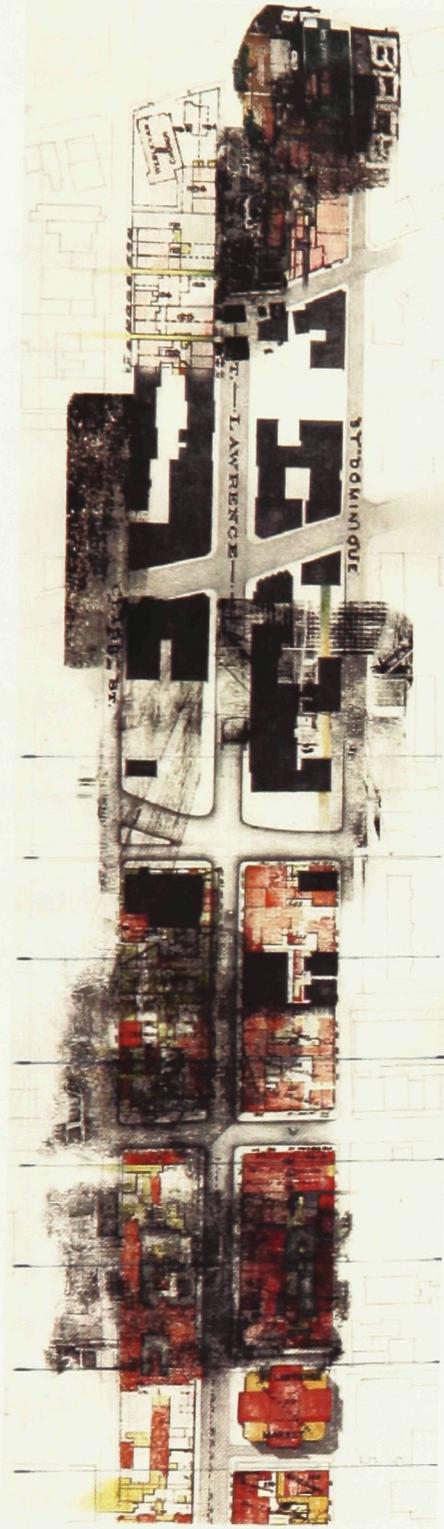
became the geographic dividing line for the city, representing the threshold corridor between east-west streets. Affectionately known as “The Main,” it stretches the entire island of Montreal linking the northern middle class residences, the garment district, Little Italy, the Plateau district, Chinatown, Vieux Montreal, and the seaport.

What has been branded as the “corridor of immigration, business, and culture,”¹ the Main today, continues the ethnic proliferation that is characteristic of Montreal. However, it would be widely accepted to state that the *genius loci* of the street resides in the diverse, social, urban life of pedestrians, inhabitants and consumers. As described by Aline Gubbay—a historian, architectural photographer, author and social worker who

chronicled the social and architectural history of Montreal—"the Main has become a cosmopolitan highway, a "third city", neither French nor English."²

While most other Canadian cities ethnic communities have become scattered, Boulevard St. Laurent successfully maintains its cluster of vibrant multicultural neighbourhoods. This could be attributed to the streets' open-arms approach to shifting boundaries as, "the Main changed in the 1950s, it changed in the sixties and seventies, and it's changing again and it will keep changing."³

This dynamic, hereditary quality of the Main has given it continued life throughout the twentieth century precisely because things are far from concrete and established; even the direction of traffic flow has changed. There are no grand schemes or master plans that can lay claim to the success of the street, and despite its lack of iconic structures or fantastical promenades, it continues on through the new millennium with great momentum. Despite its great



16 Figure-ground exploration of Lower Main layering the historical buildings of a century ago and those present today. 11"x32" on Stonehenge paper.

character, the Main has its less successful areas and these are mostly concentrated along what has become known as the “Lower Main.”

The stretch of Boulevard St. Laurent—which runs south from Sherbrooke to Old Montreal—known as the Lower Main, has been notoriously branded as the “red-light district” as it is home to strip clubs, prostitutes, drugs and biker gangs. A large amount of what visibly remains on the Lower Main are desolate sites and decrepit buildings, many of which are left abandoned and inhabitable. These urban blights remain stagnate, and at most have been converted into asphalt parking lots. In terms of the urban fabric, very little has significantly changed on the Lower Main in the past twenty to thirty years until recently.

Reserve Sites: The Lower Main

The personal soul of Lower Main has been a strong force that resides there now and this personality predominantly sets it apart from the rest of the Boulevard. According to Aldo Rossi, history-lived feelings and aspirations are what constitute an urban personality. Historically, the Lower Main—which was a main artery from the port of Montreal—began as a life line to merchant seamen who spent months in close quarters with fellow seamen. To no surprise it became the “area where tattoo parlours jostled brothels and burlesques houses, cafes, cinemas, souvenir stores and clothing outlets at bargain prices.”⁴ The unique character of the area made it a very vibrant place to be and this was intensified in 1920 by the Prohibition in the United States. To many of the so-called



17 Two figure-ground representations. On the left, analyzing reserve sites in relation to building footprints and block density. On the right, inverting the void of the reserve site to examine the relationship between the respective block and possible building site.

proper Canadian cities, Montreal became the escape town to illicit pleasure, which brought crime and violence that set the Lower Main on a detrimental path resulting in the state it now resides.

The history of the Lower Main has influenced so much of what stands today, and fittingly its influence carries on to shape the personality of the area. However, what the Lower Main used to be, and what it has become, remain distinctly different. At the heart of change was Montreal's decline in status "as a major industrial centre, which had been linked to its roles as the hub of continental commerce and communication and as the centre of

Canadian investment activity."⁵ The opening of the St. Lawrence Seaway in 1959, provided large ships passage through to Toronto, and combined with increased trade

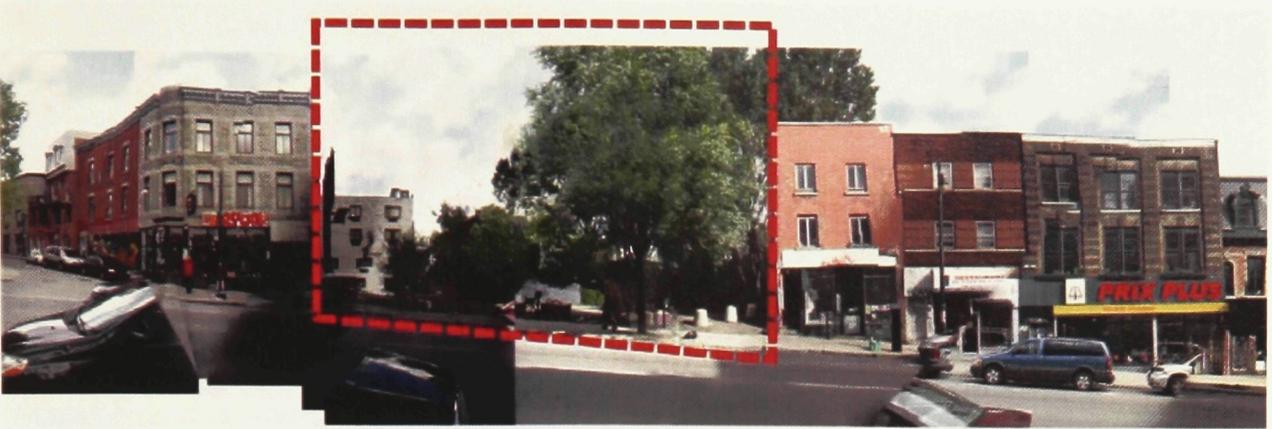
through the Pacific Ocean, Montreal no longer stood as Canada's national metropolis. More locally, an increase of Chinese and Korean immigration to Montreal brought an Eastern culture to the southern-most tip of the Lower Main. Chinatown, along with the construction of Boulevard Rene-Levesque—an eight-lane express-route—have effectively boxed-in the illustrious harbourfront district to an area of four blocks.

Since its raucous harbourfront years the area has sheltered an underworld, self-contained and self-regulated...But this world is a world [now] closed to those whose lives are lived beyond its orbit, a world rarely perceived by visitors who flock daily to the Lower Main to browse and shop and dine. For them the Lower Main provides other, accessible worlds, exotic and entertaining, in the international parade of stores and restaurants.⁶

What now resides on the Lower Main, in terms of Rossi's "lived feelings," is an idle urban space where very little has changed since the 1960's. In essence, the Lower Main has become an 'urban artefact;' it preserves certain original values and functions, while others are totally altered. This urban artefact, like described by Aldo Rossi, is "characterized by [its] own history and thus by [its] own form."⁷ Consider then the static state of the Lower Main, through contrast we are able to distinctly identify the transformations in the city that begin to occur in proximity to it. Once again, Rossi explains that:

The transformation of particular parts of the city over time is very closely linked to the objective phenomenon of the decay of certain zones. This phenomenon, generally referred to in the English and American literature as "obsolescence," is increasingly evident in large modern cities.⁸

This phenomenon of 'obsolescence' specifically refers to areas of the city which do not follow the life of the city. They often "remain islands for a long time with respect to



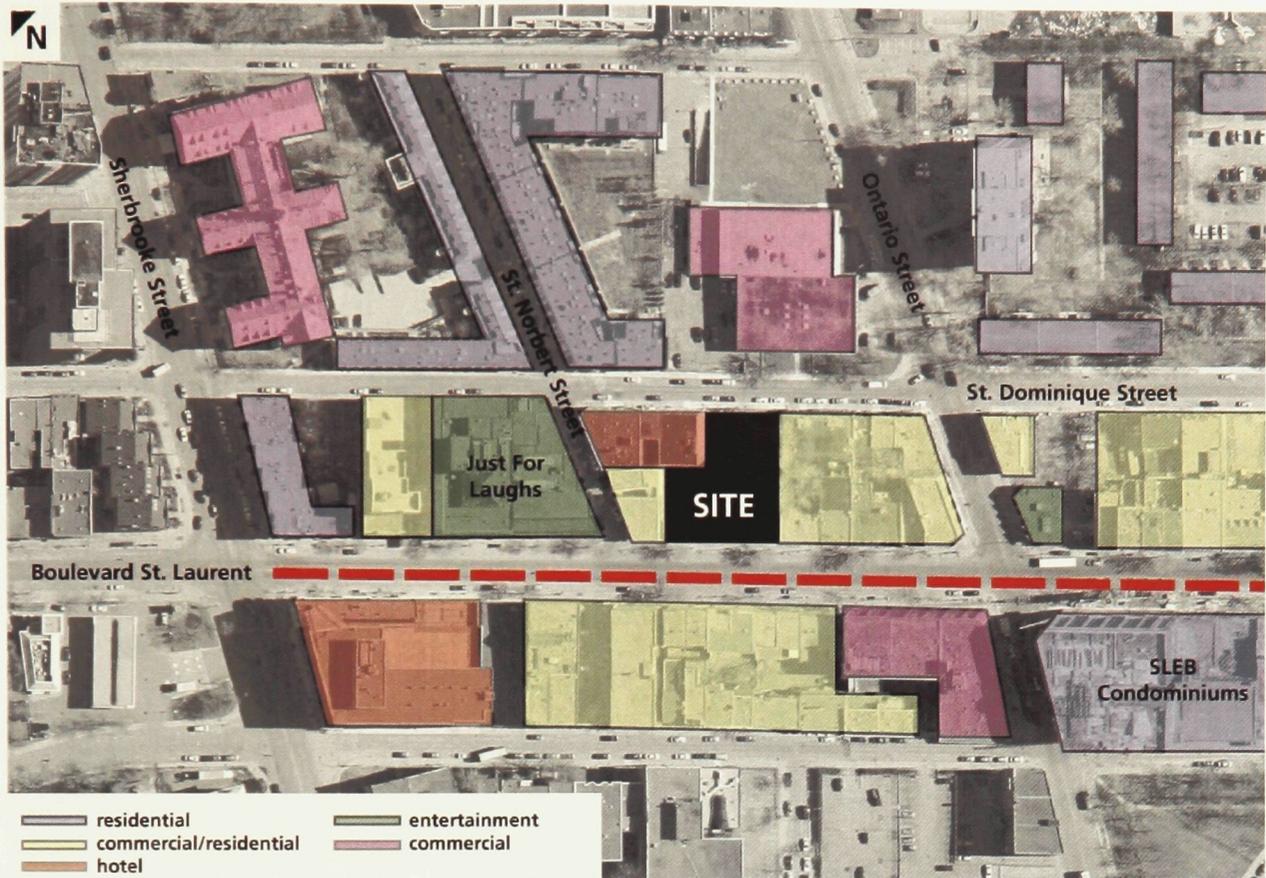
18 Existing street elevation outlining proposed site.

the general development, bearing witness to different periods in the city and at the same time configuring large areas of ‘reserve.’”⁹

This architectural project attempts to specifically address one of the reserve sites on Lower Main in order to spark a momentum that could counteract the obsolescence of street without neglecting the personal soul of the street.

The configuration of reserve sites along the Lower Main provides a range of possible building sites. By utilizing a figure-ground method of examination and taking into consideration the lot area, the assortment of reserve sites were explored and narrowed down to three. Of the three chosen, a contextual analysis of streets, surrounding building types, exposure, topography, and community was implemented.

The chosen site for the *Adolescent Healing Centre* is situated on a half-block between Boulevard St. Laurent and St. Dominique Street. Sitting between existing four to five storey buildings the site remains completely unused. Its vacancy interrupts the urban street frontage and breaks the distinct outdoor space that is cohesively defined through



19 Context diagram of immediate site area showing building uses.

connected, built-up street facades. Located on the upper part of large hill that slopes down from Sherbrooke Street to Ontario Street, the site currently sits awkwardly empty contributing nothing to the street.

Design Investigation

This section provides a description of the various analytical stages of architectural explorations drawn upon for the proposed *Healing Centre*. This design investigation was successively implement and directed as a process to develop architectural ideas and form.

Marking the genesis of the process is a speculative, physical assembly that represents a personal, objectified opinion towards architecture. The assembly was constructed as a combination of parts that signify a whole through their individual connections. As a result, these physical connections were taken as points of extrusion, which through photographing and digital manipulation, was explored in a flattened collage-like manner. The collage was overlaid on the site as a preliminary, abstract gesture that juxtaposes a personal artifact with the proposed building site.

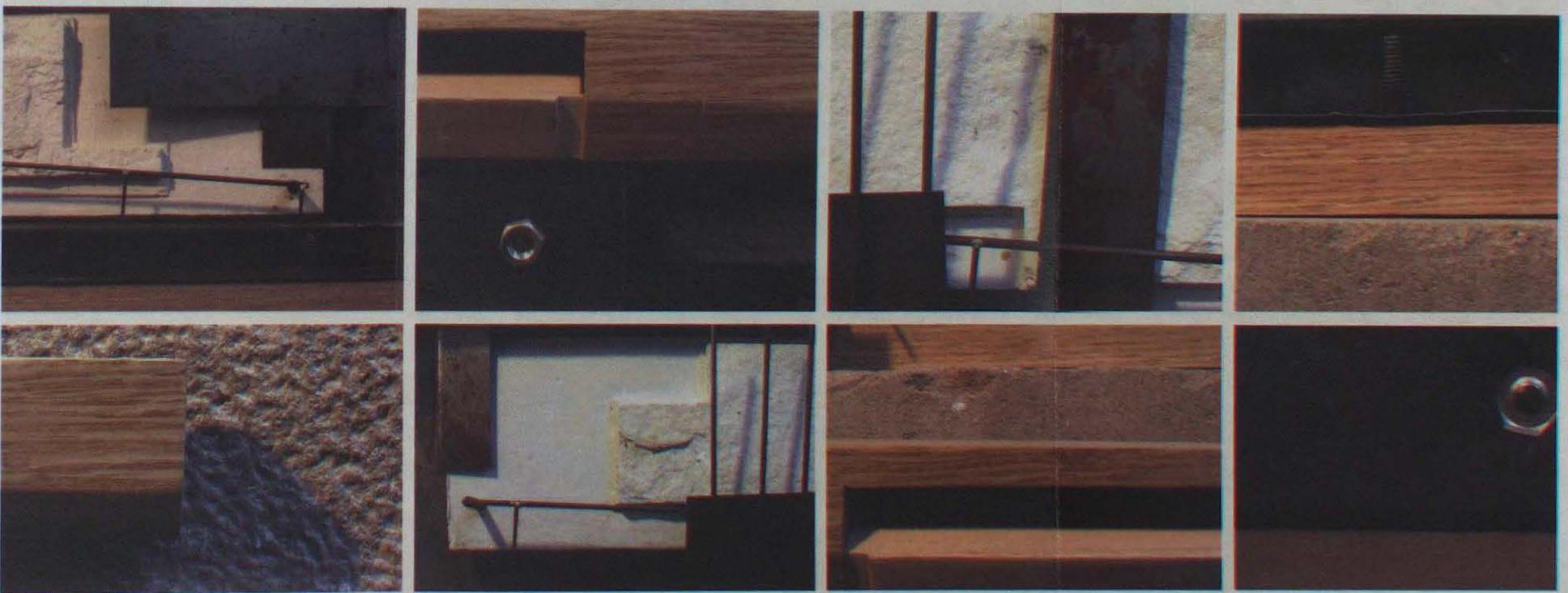


Plate 1

Assembly construction. Stone, metal, plaster, and oak, 32"x12".

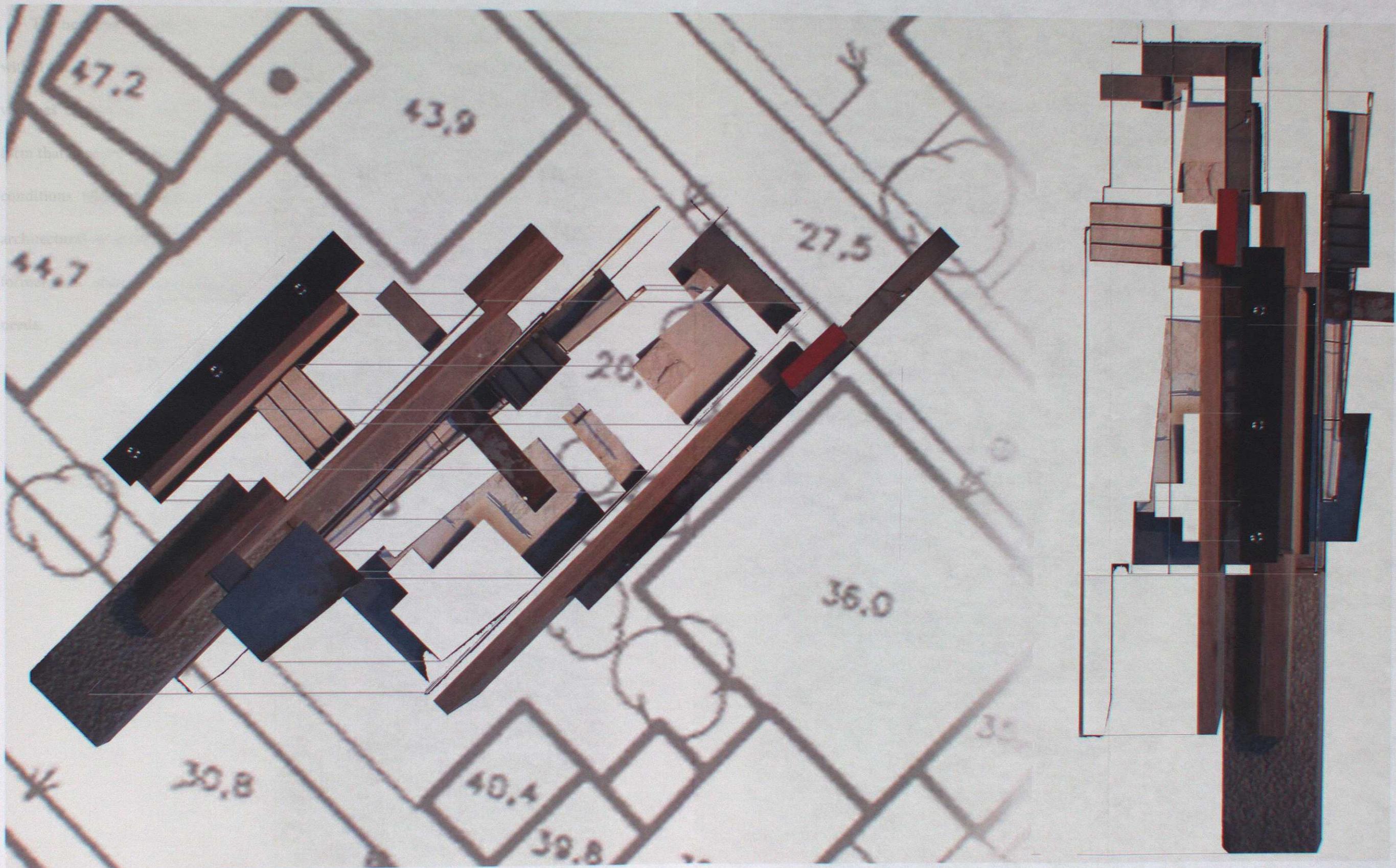


Plate 2 Sited collage and preliminary collage. Digital manipulation, 44"x24".

The next phase in the process explored a tectonic depth within the sited collage. Through extruding and recessing volumes the collage took on newly interpreted physical form that began to suggest certain spatial conditions. These conditions were further investigated through standard architectural conventions in order to begin to identify formal and spatial concepts relating to programmatic needs.

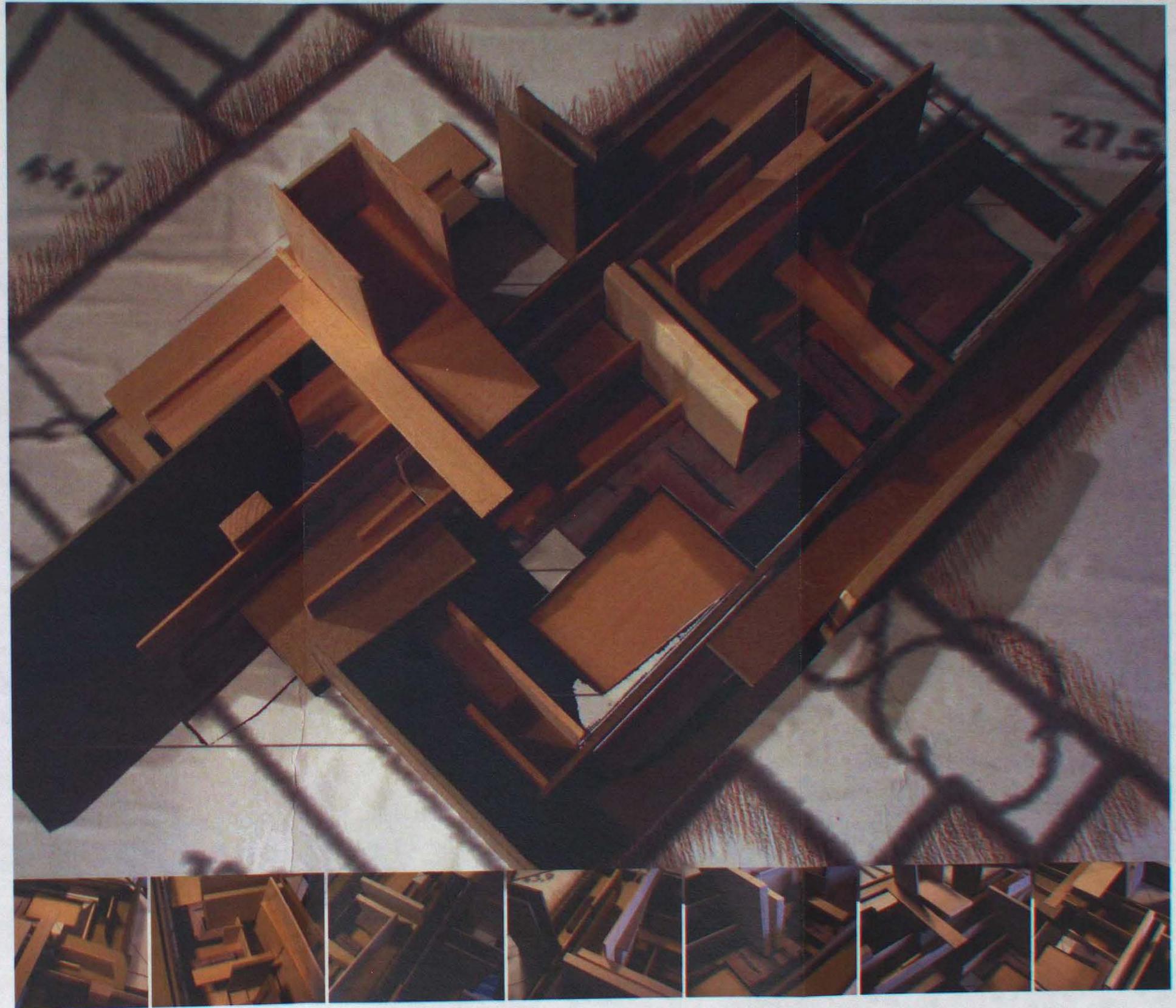


Plate 3
Basswood and chipboard model, 26"x16".

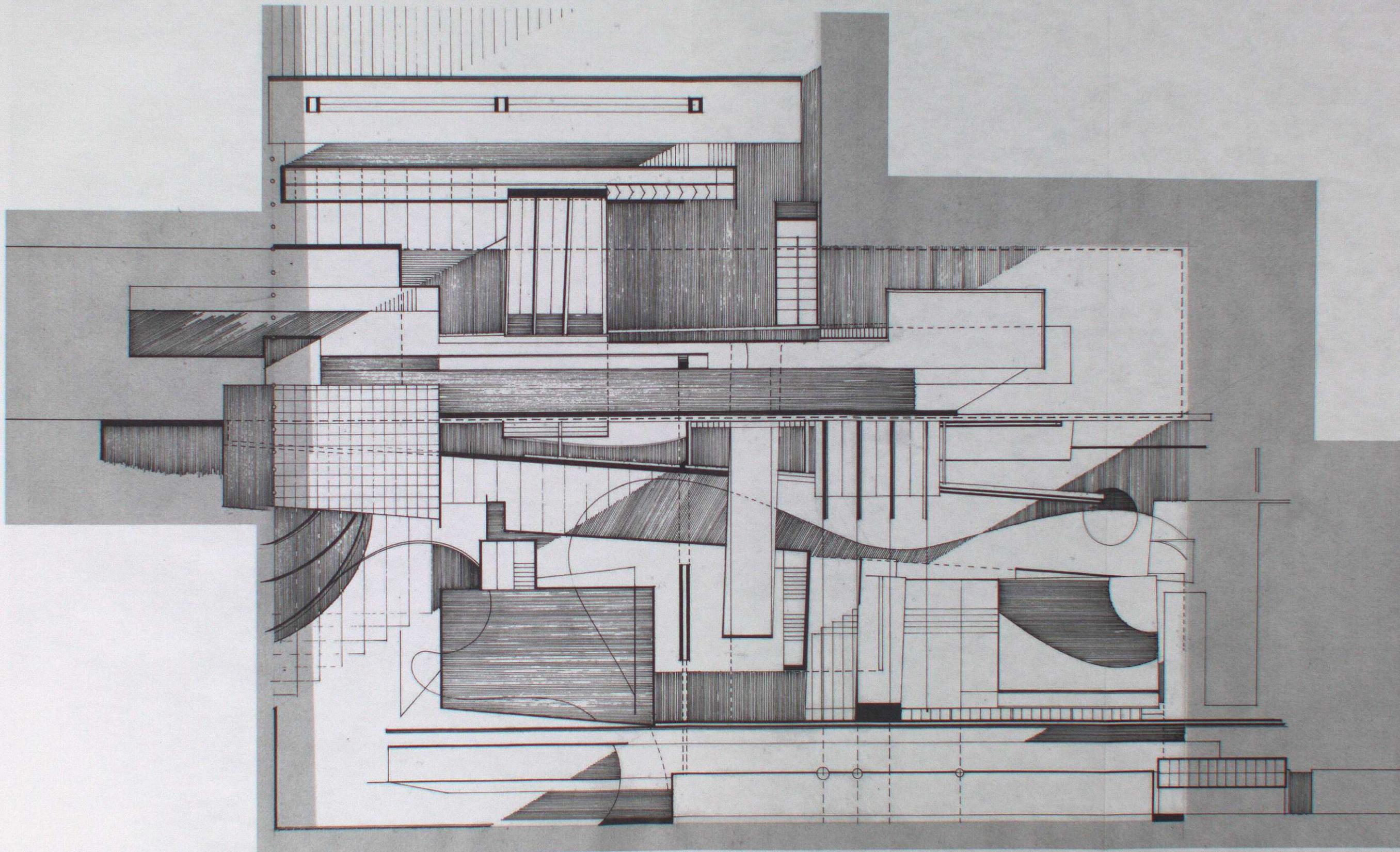


Plate 4 Conceptual line drawing. Ink on velum, 28"x20".

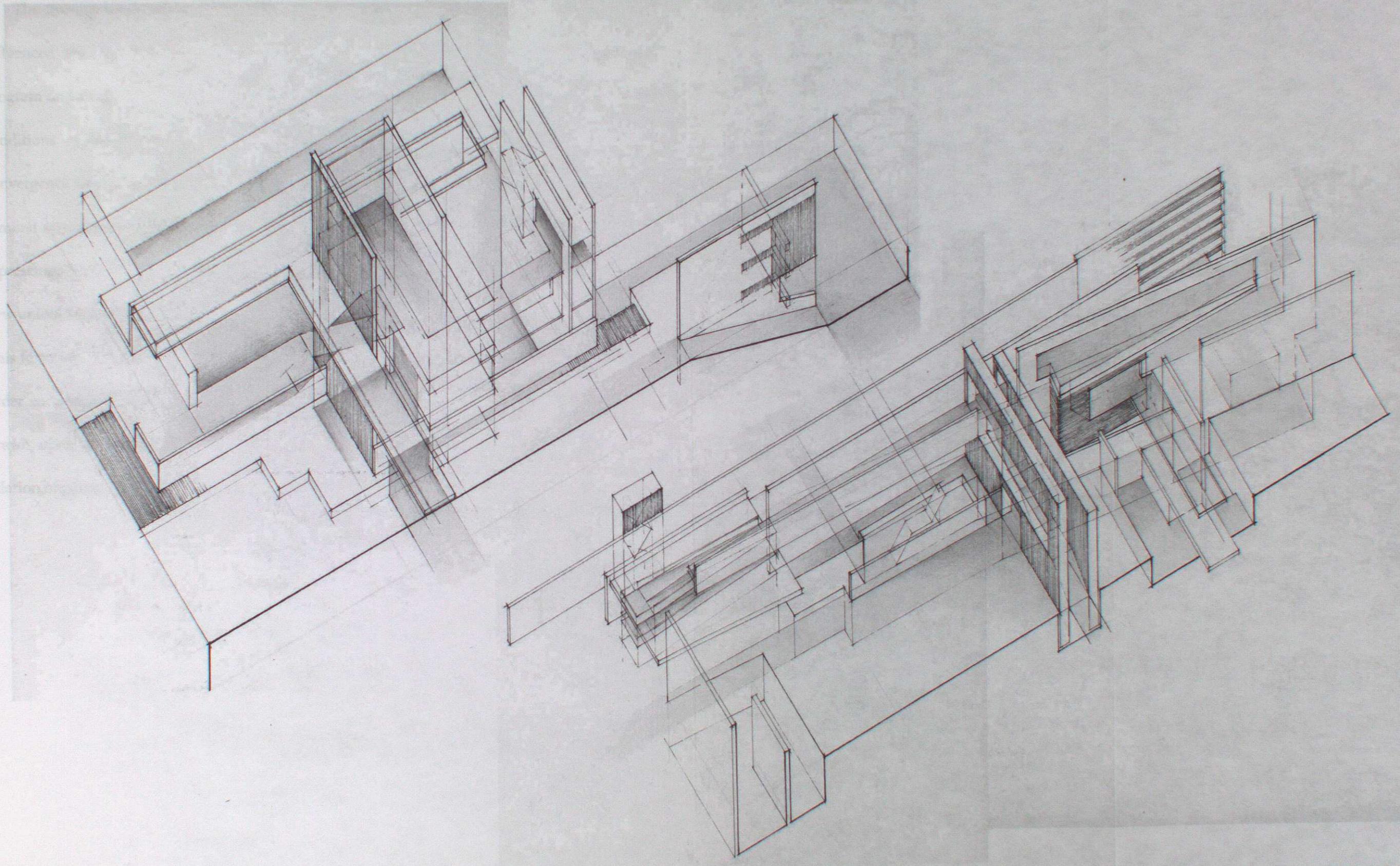


Plate 5 Ink and graphite axonometric drawings on Stonehenge paper, 21"x13".

The third phase in the design investigation decisively influenced the final building design. As the building program and theoretical component developed, the spatial conditions explored earlier were intensified through a convergence of the axonometric drawings that marked a seminal reconnection of parts. The axonometric drawings represented parts of a disconnected whole that, through its new union, took on new meaning and generated new form. This form was translated sectionally in various iterations in order to explore different spatial relationships that were drawn upon for architectural form and a programmatic relation of parts.

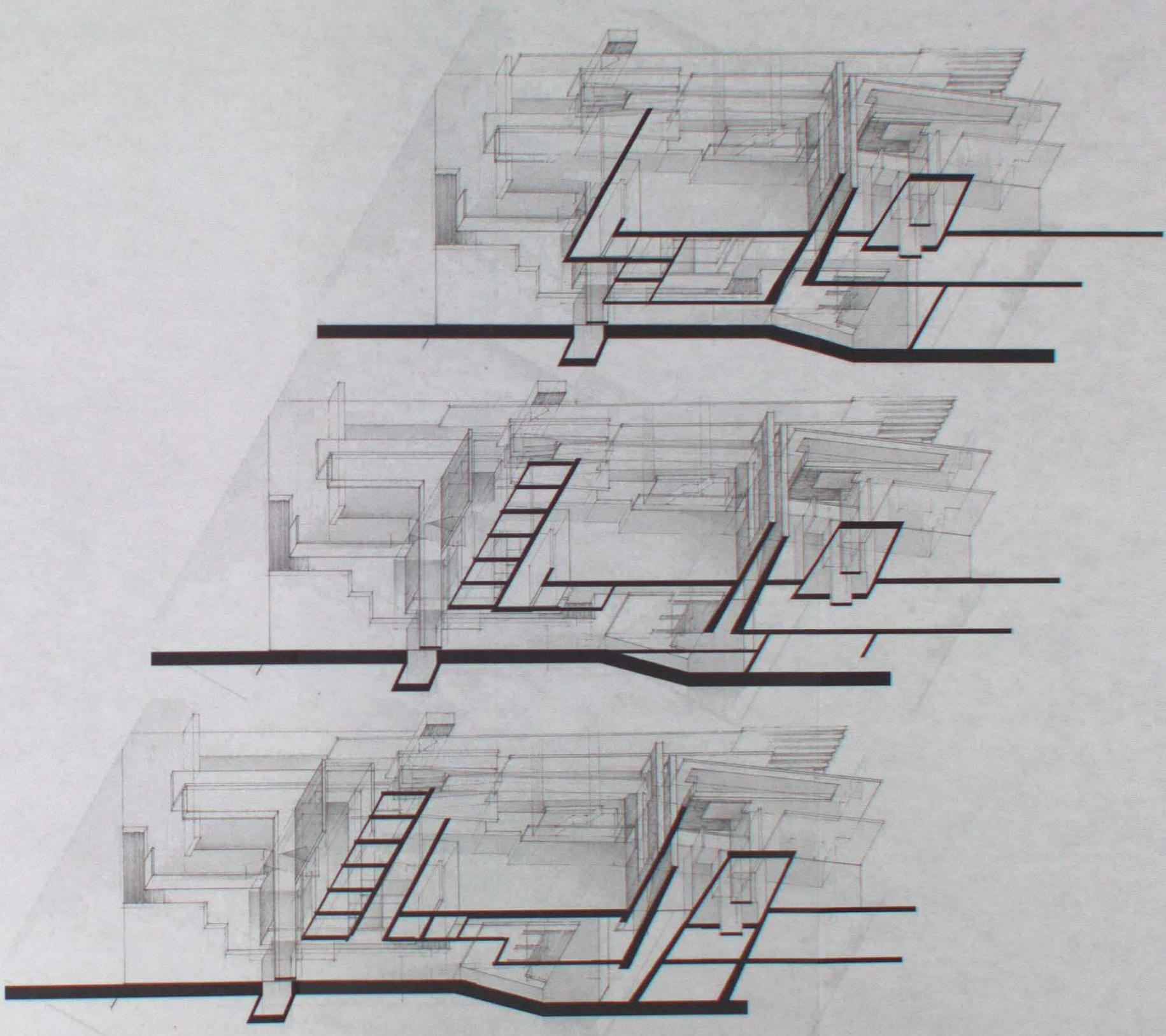


Plate 6
Sectional explorations. Digital manipulation, 22"x11".

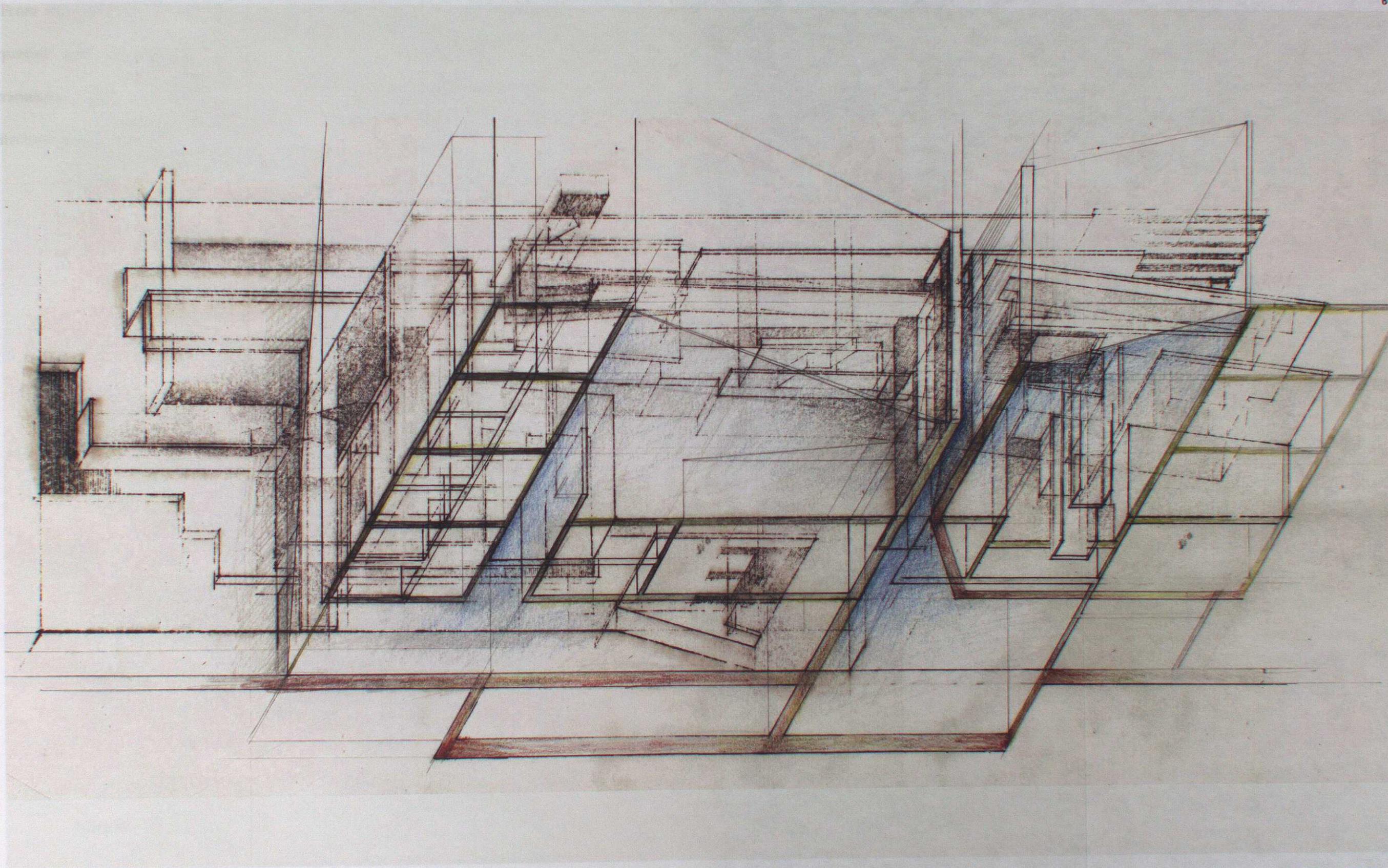


Plate 7 Sectional exploration. Ink, graphite and colour pencil, 30"x17".

From this point on, the design process focused on interpreting prior investigations in combination with programmatic and contextual concerns through architectural planning and built form.

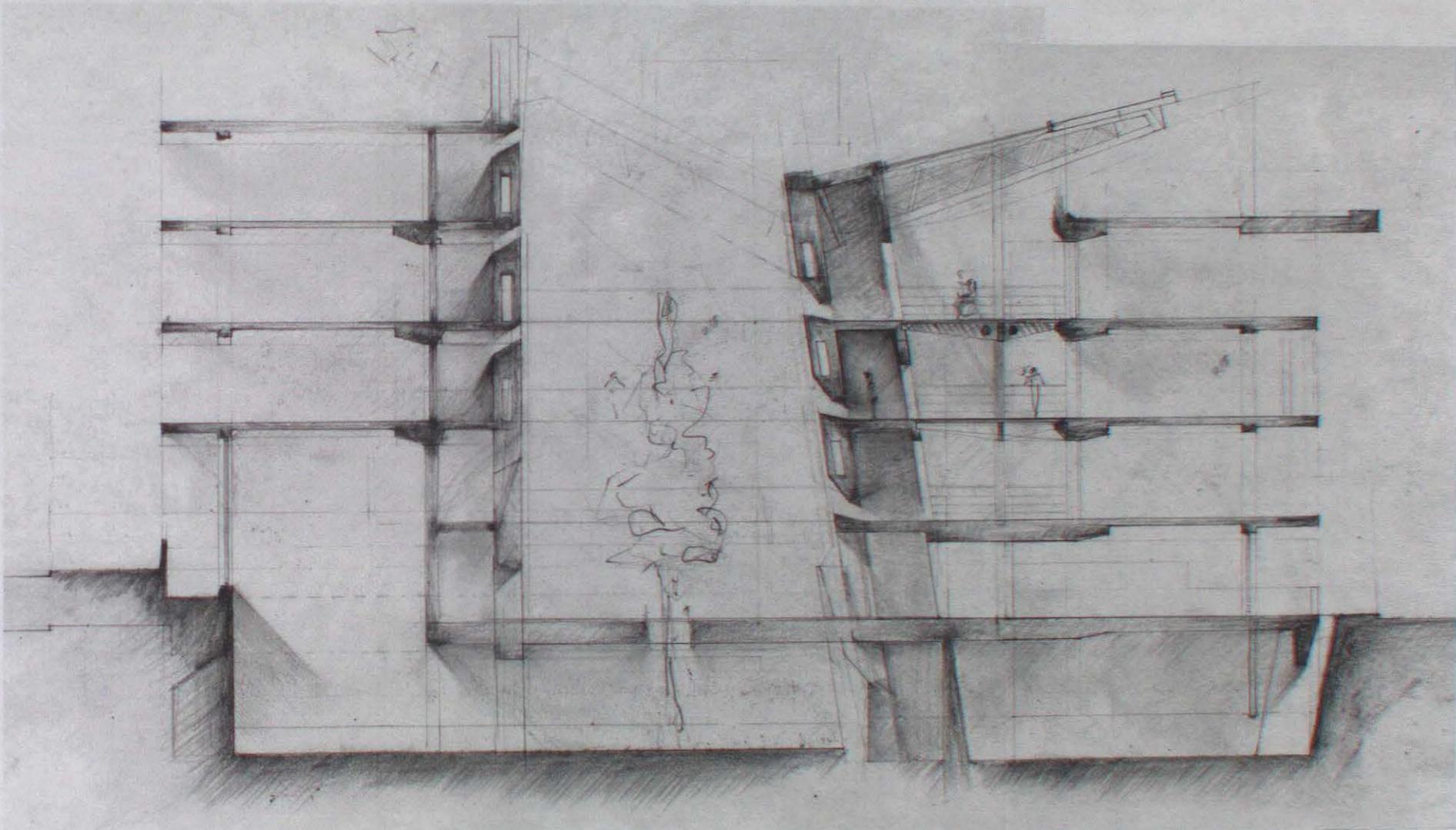


Plate 8
Schematic section. Graphite and colour pencil, 32"x12".

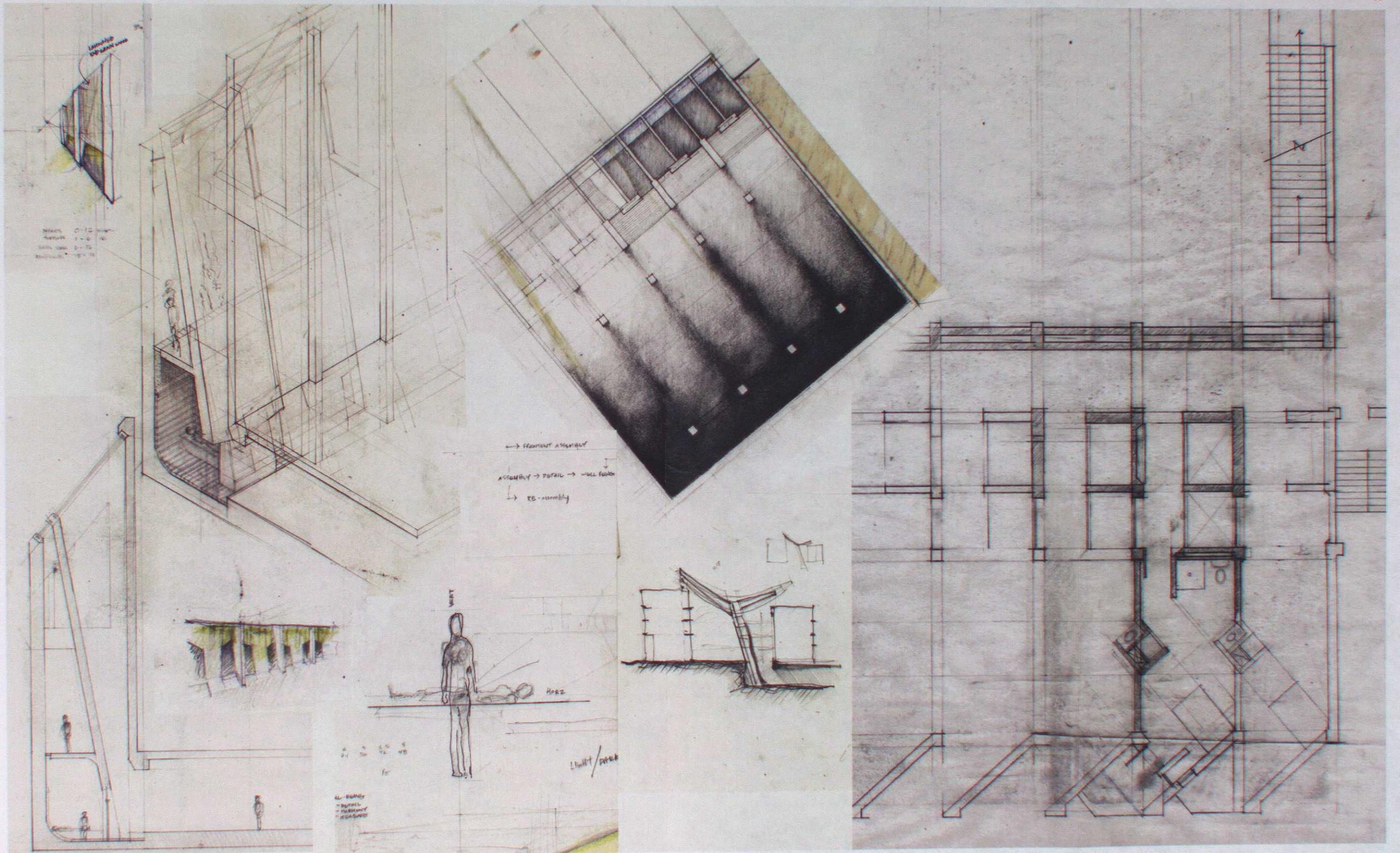


Plate 9 Design sketches. Graphite and colour pencil on Stonehenge and trace paper.

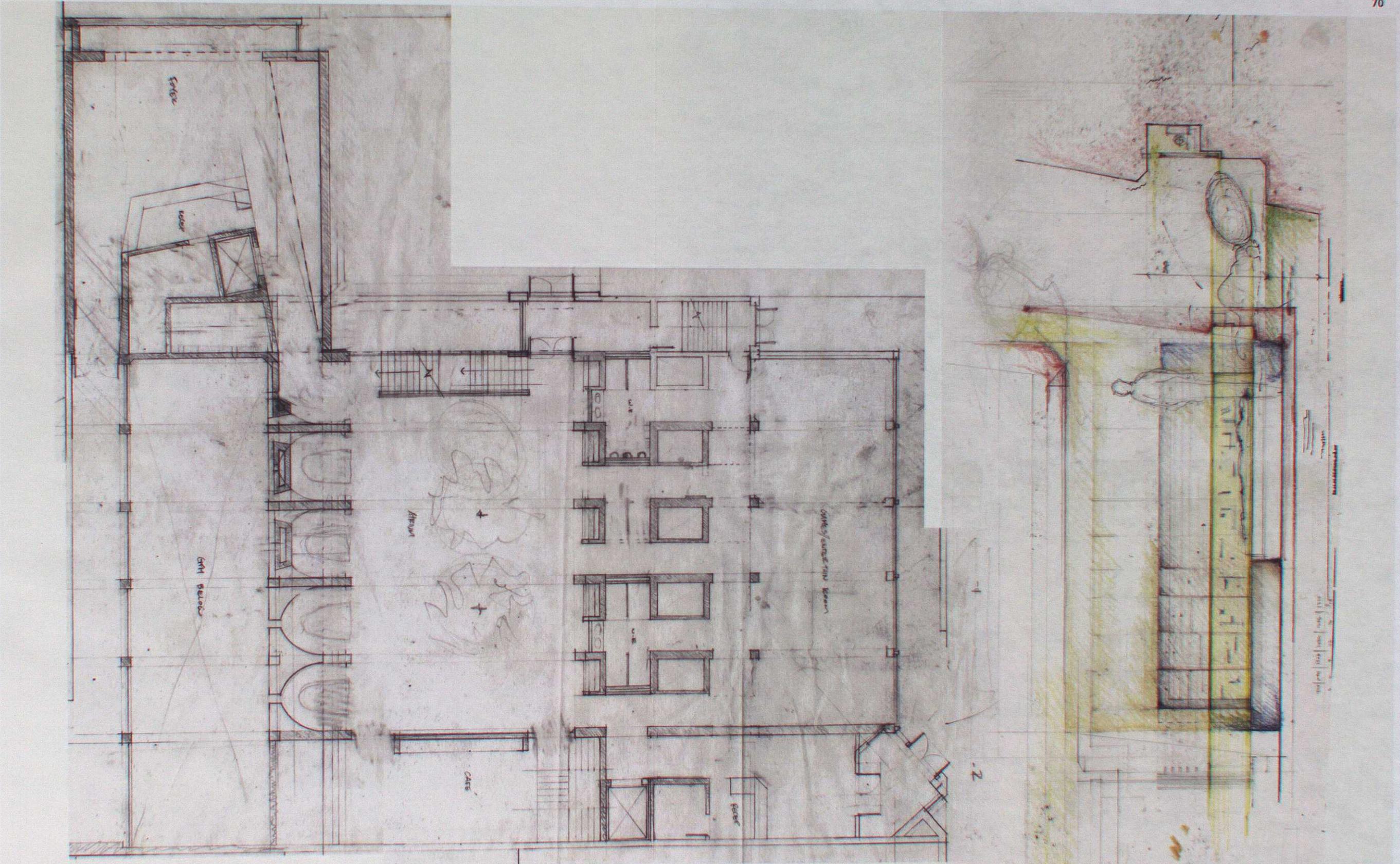


Plate 10 Design sketches. Graphite and colour pencil on Stonehenge and trace paper.

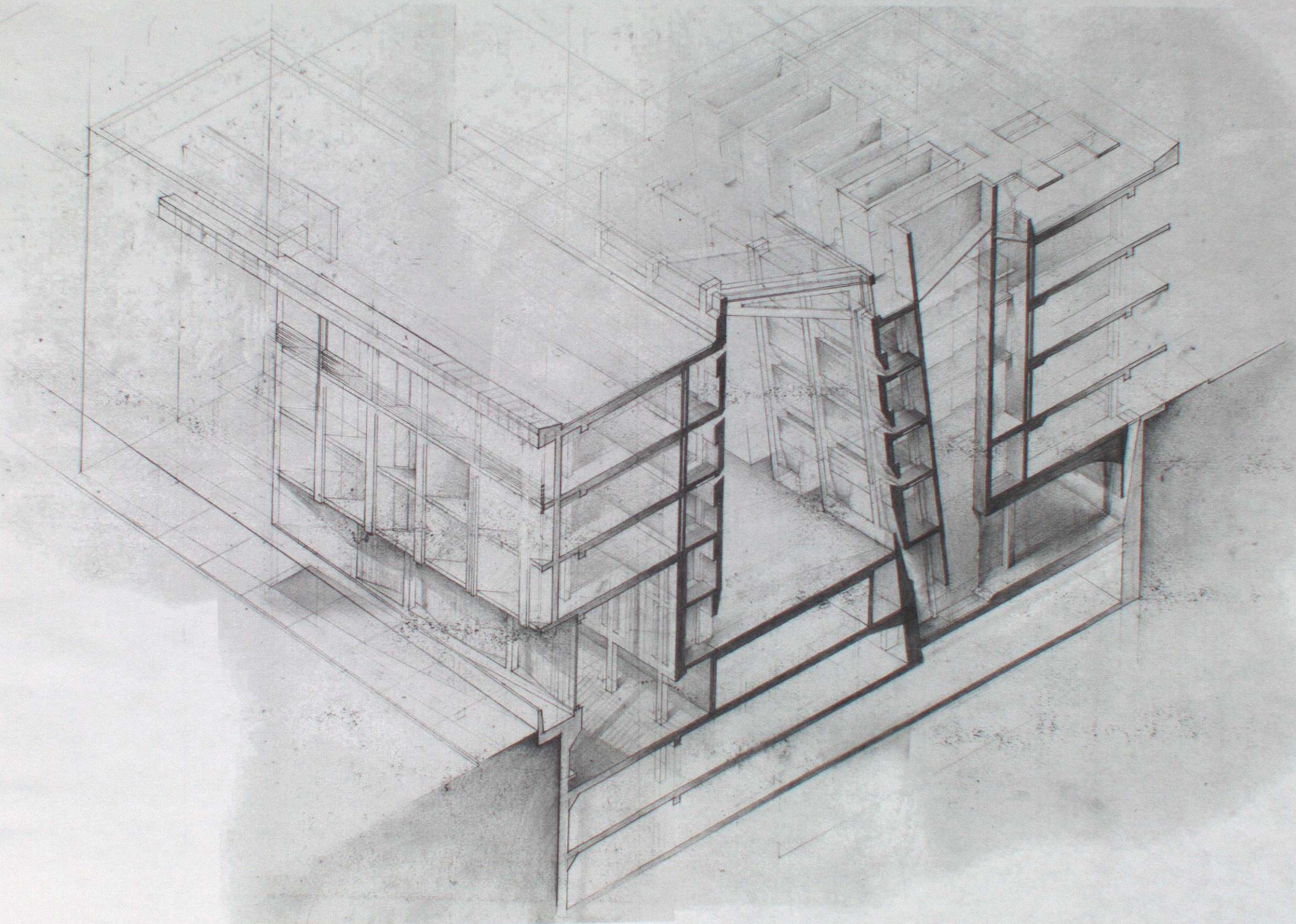


Plate 11 Sectional isometric drawing. Graphite on Stonehenge paper, 40"x24".

Descriptive Program

With the specific intention of promoting self-care, this centre for sick and recovering adolescent children contains thirty single-occupancy convalescent rooms. All these rooms are raised above street level, receive natural daylight and are equipped with personal lavatories providing the privacy and individuality important to adolescents. In addition, each room includes a small outdoor balcony oriented to either the rising or setting sun in recognition of the body's secret healing power that operates at the periphery of time, between sleeping and waking.

Two volumes—consisting of convalescent rooms occupying the front and rear of the site—form an interstitial atrium space that is enclosed by a steel truss structural system. As the primary organ of the building, the atrium not only acts as a social cafeteria space but it also unifies, connects and distributes people throughout the building. Here the feast bonds the building together as a lesion open to the sky, which through its tapering form and structural stitches, represents a healing wound frozen in time. Adjacent the atrium, the building opens to the sky in the form of a contained outdoor garden space that utilizes the therapeutic value of natural, intimate space. Located below grade, submerged under the outdoor garden, are the therapy pools which receive natural light via slits and openings. Following a tradition of cleansing the body of sickness, the pools mimic the roman baths by using three successive pools of warm, hot, and cold water.

Entry to the building is accessible from both streets. The main entrance—off Boulevard St. Laurent—submerges the visitor below grade into the reception foyer. This solid, concrete volume is mysteriously penetrated by a light that interrupts the darkness of the space signifying a recovery of life. Above the entrance foyer are administrative offices, a small library, mechanical penthouse and roof-top access. Upon entering the building, the visitor passes a two-and-a-half storey gymnasium located below grade that relates the fluidity of movement on the street with that of physical activity. Also located below grade—on the opposite side of the gymnasium—the convalescent accepts the obscurity of death in a shadowy, subterranean, spiritual space that acknowledges an unknown existence with penetrating light wells that supernaturally illuminate.

Building Design

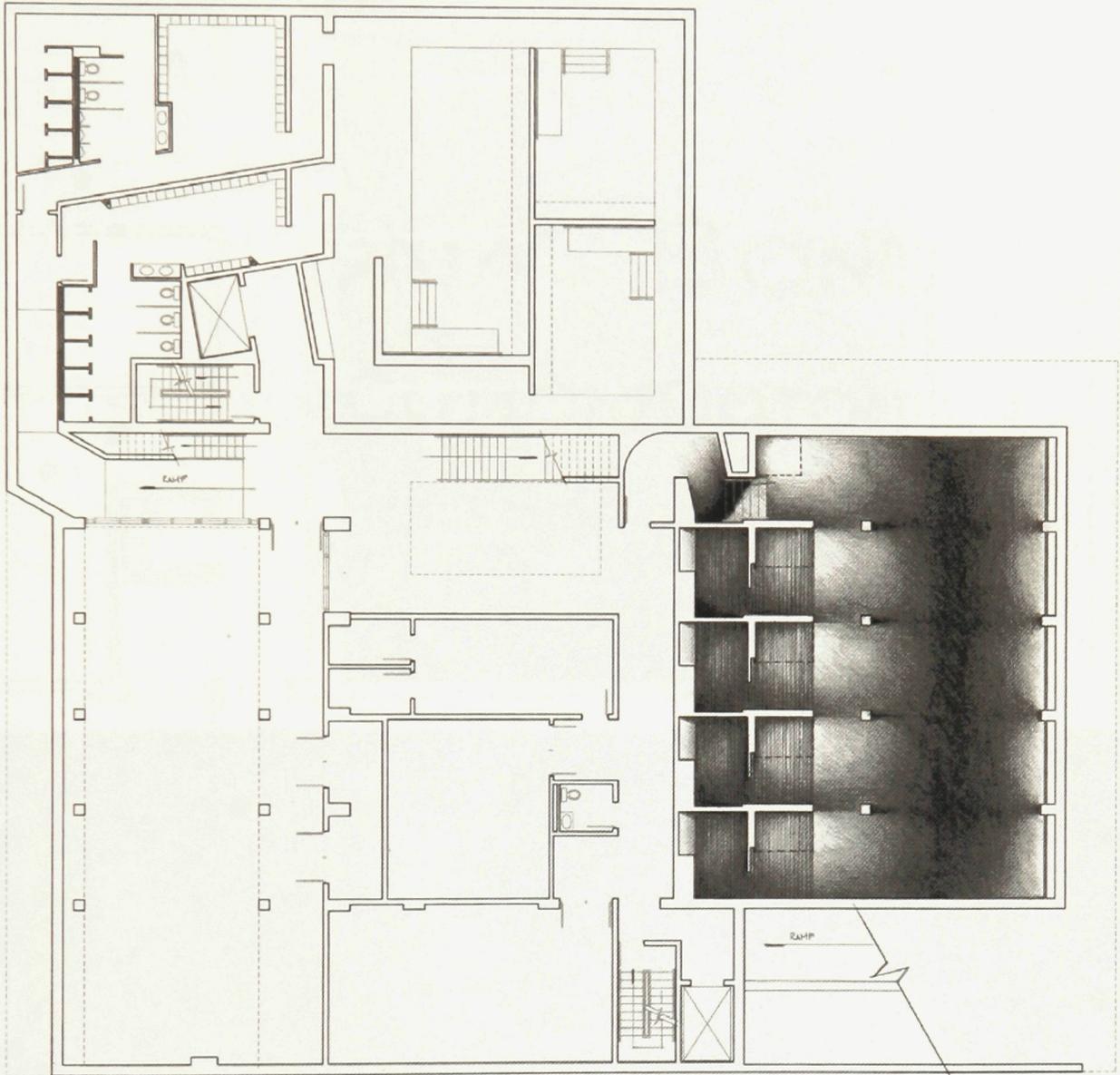


Plate 12 Basement floor plan, 1:100. Graphite on Fabriano paper, 30"x22".

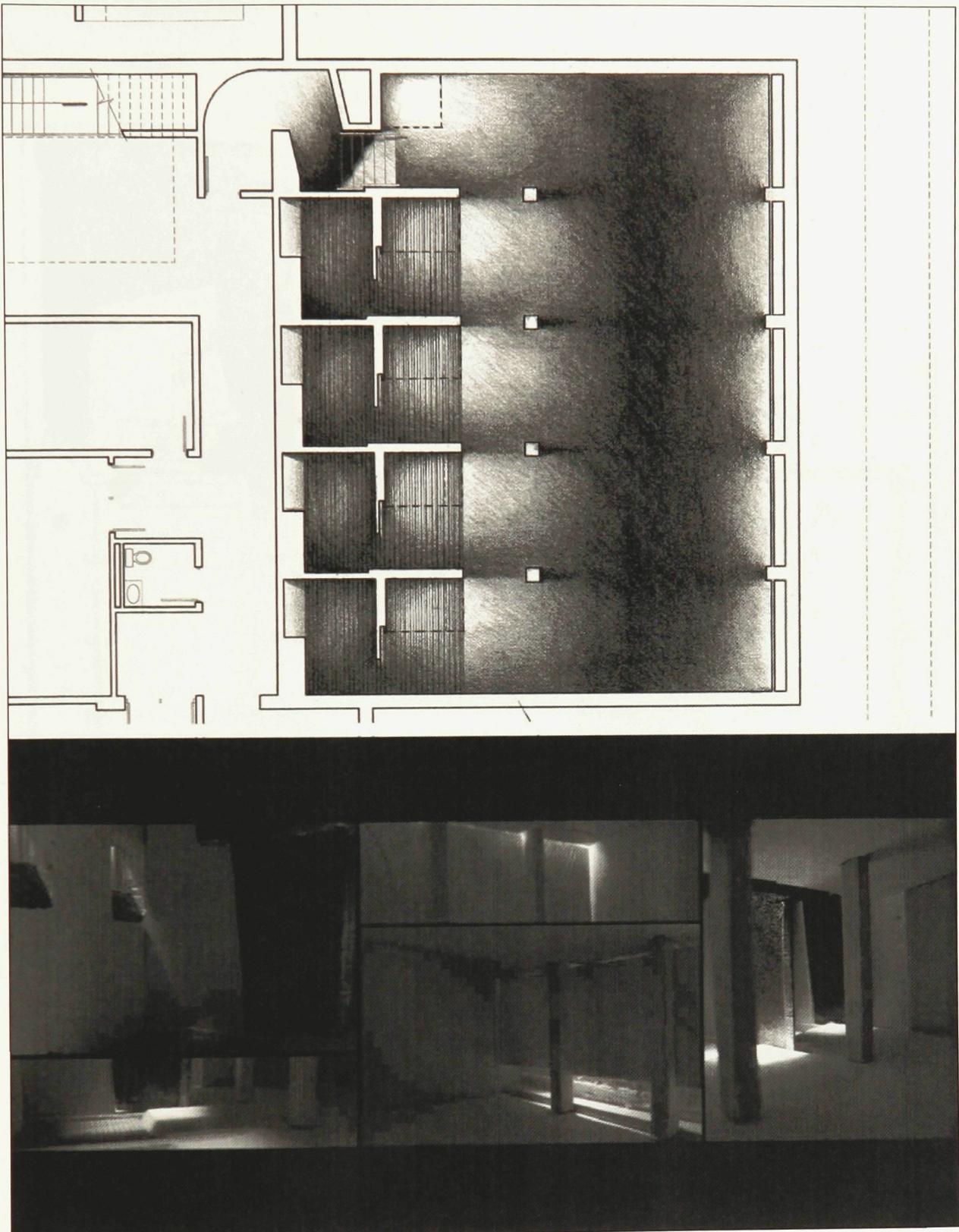


Plate 13 Plan detail at spiritual room and model vignettes.

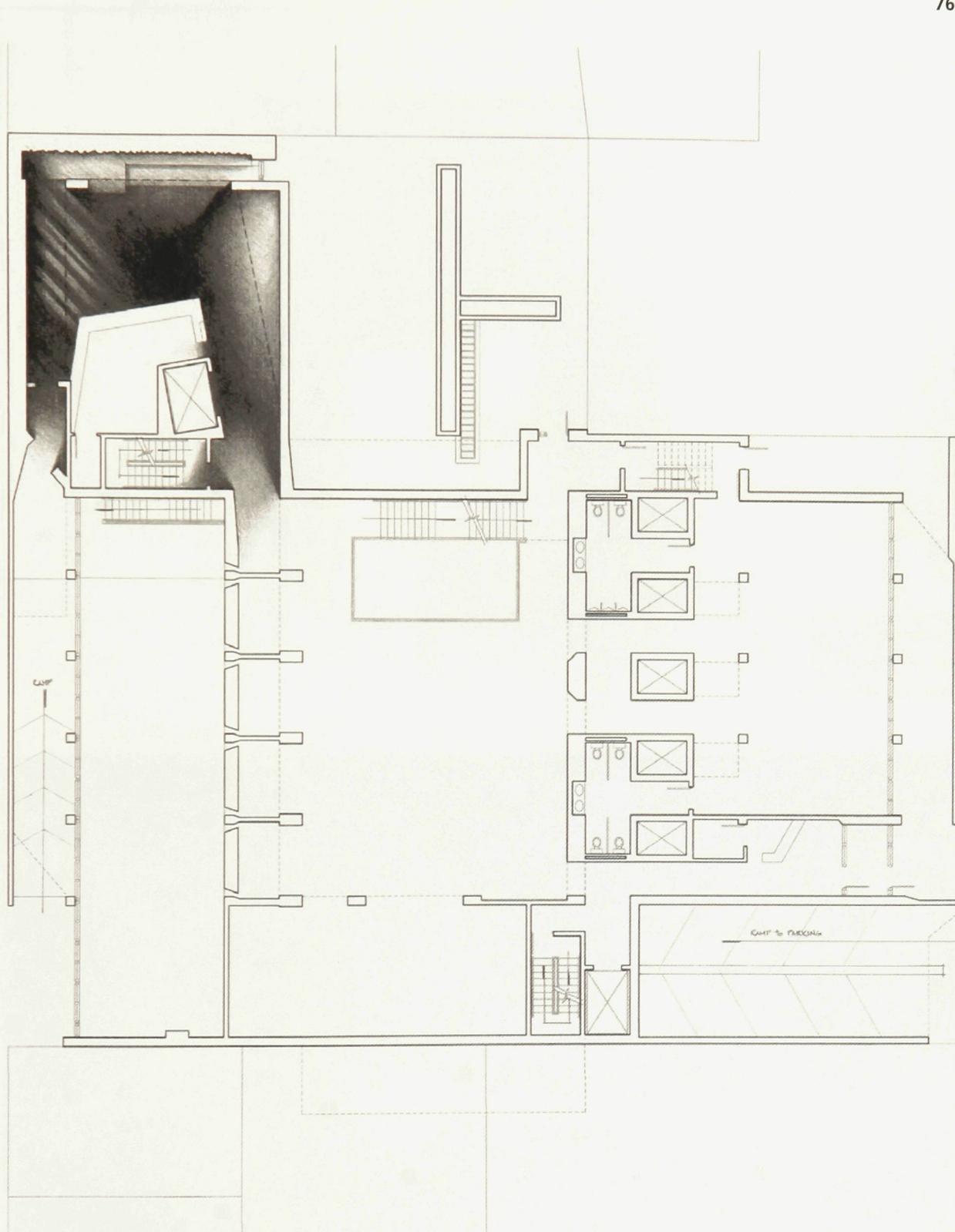


Plate 14 Ground floor plan, 1:100. Graphite on Fabriano paper, 30"x22".

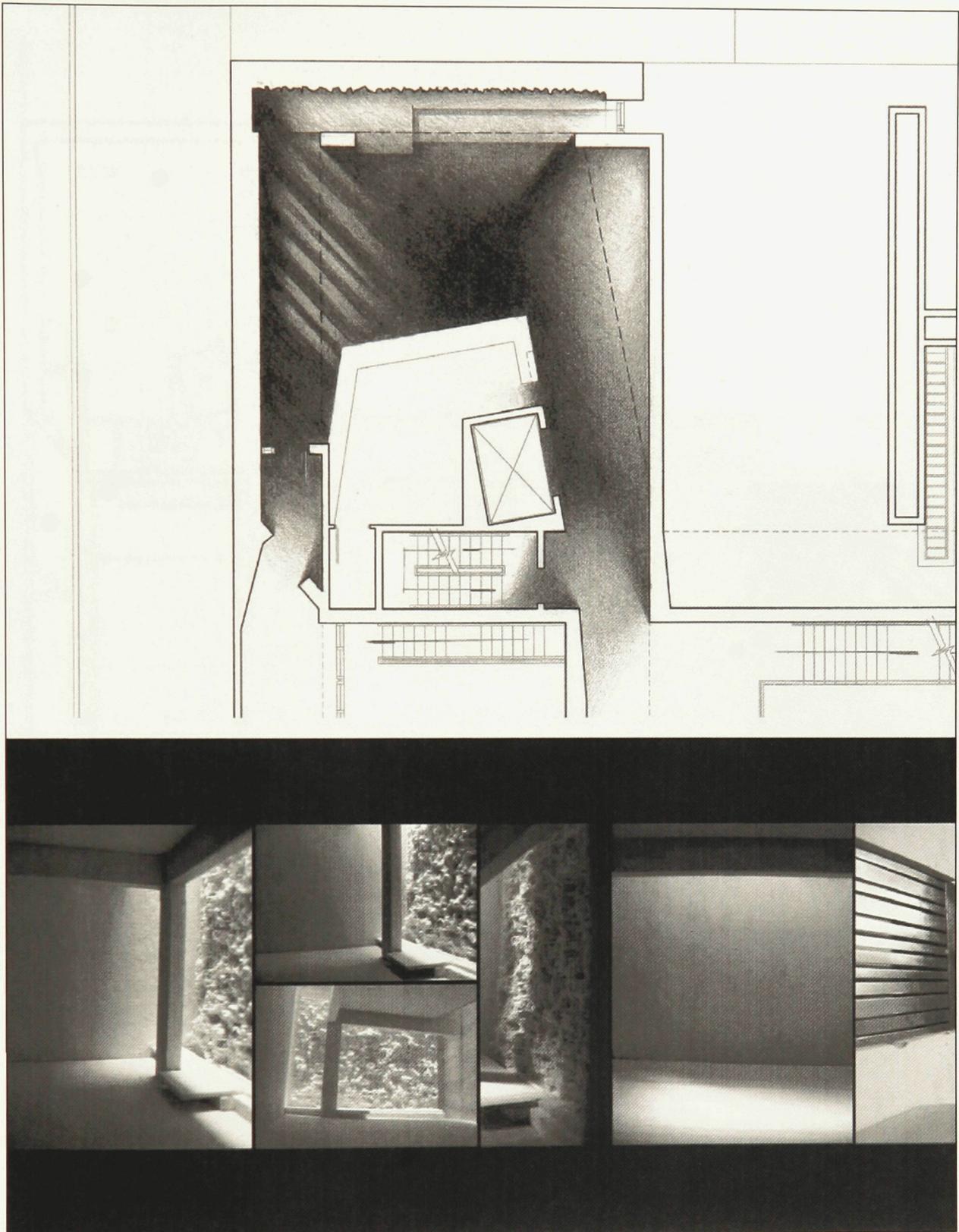


Plate 15 Plan detail at entrance foyer with model vignettes.

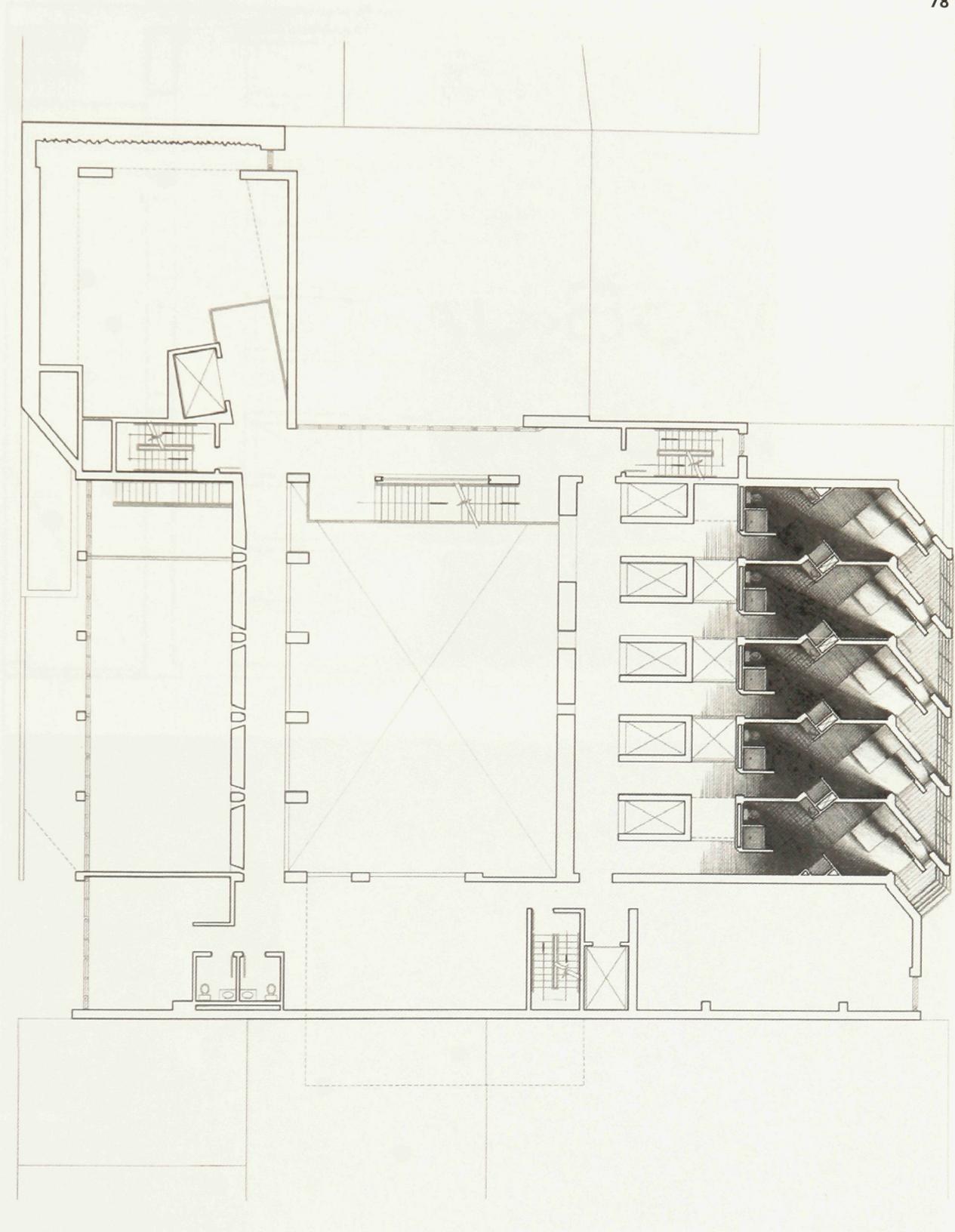


Plate 16 Second floor plan, 1:100. Graphite on Fabriano paper, 30"x22".

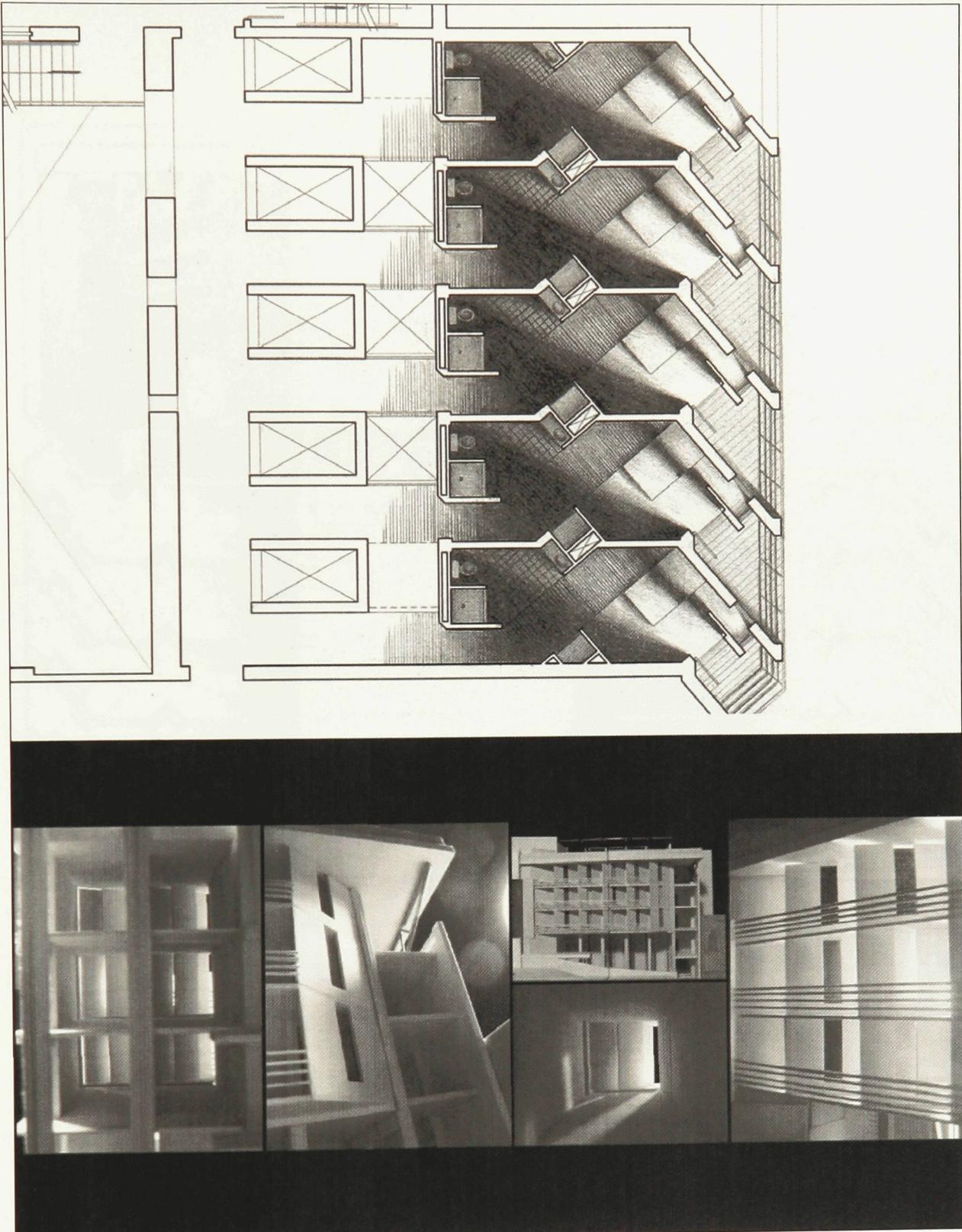


Plate 17 Plan detail at patient rooms with model vignettes.

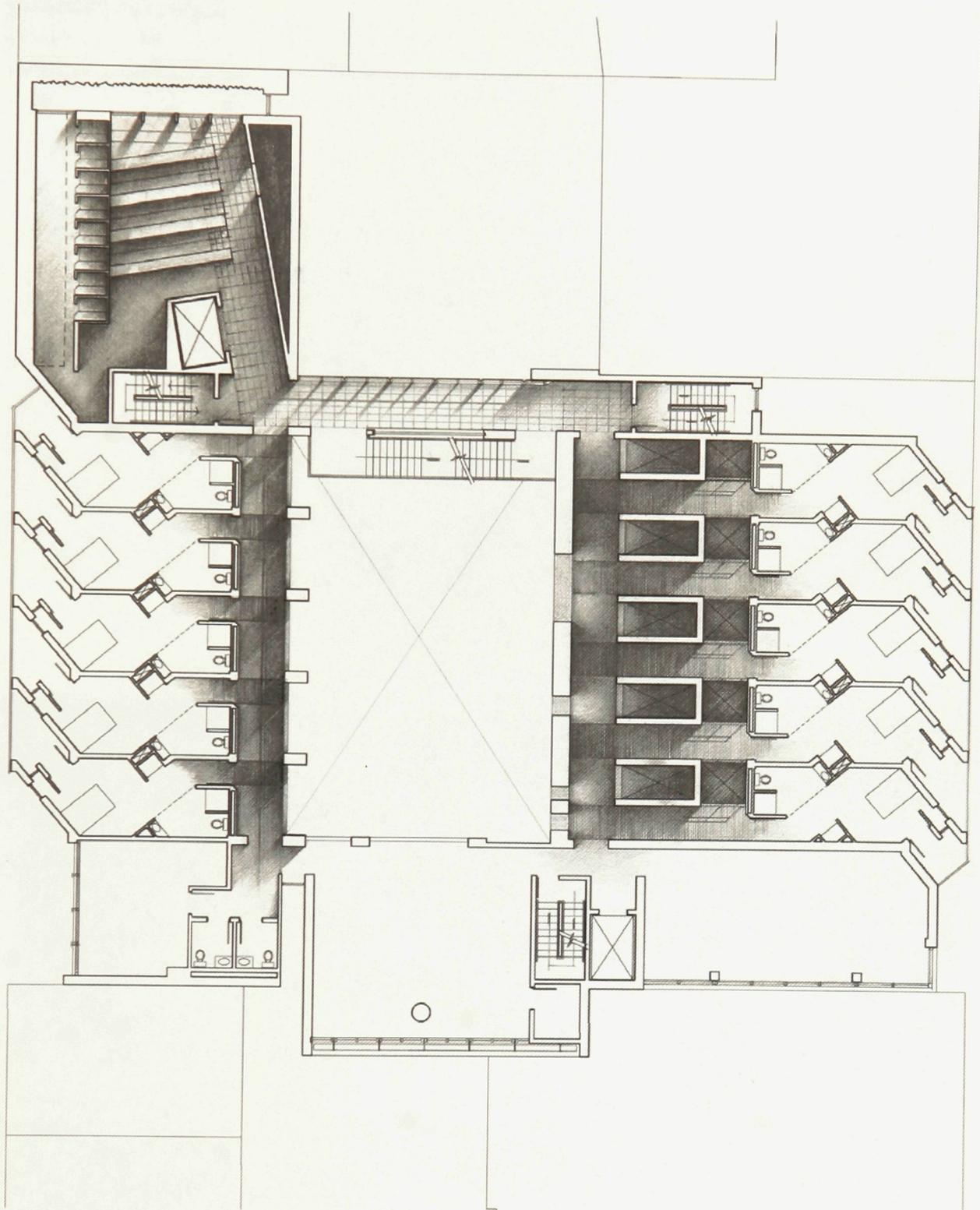


Plate 18 Fifth floor plan, 1:100. Graphite on Fabriano paper, 30"x22".

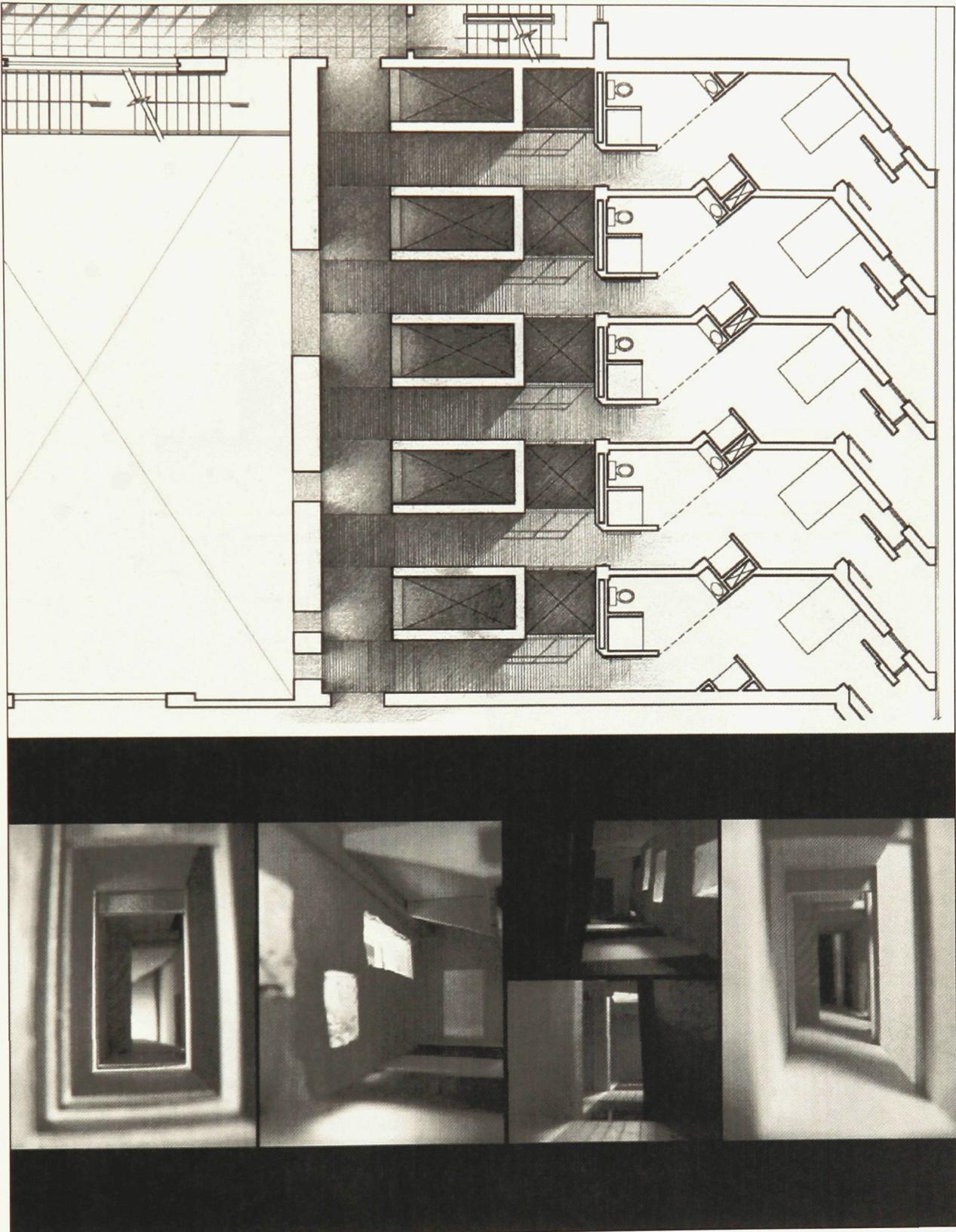


Plate 19 Plan detail at corridor bridges and light wells with model vignettes.

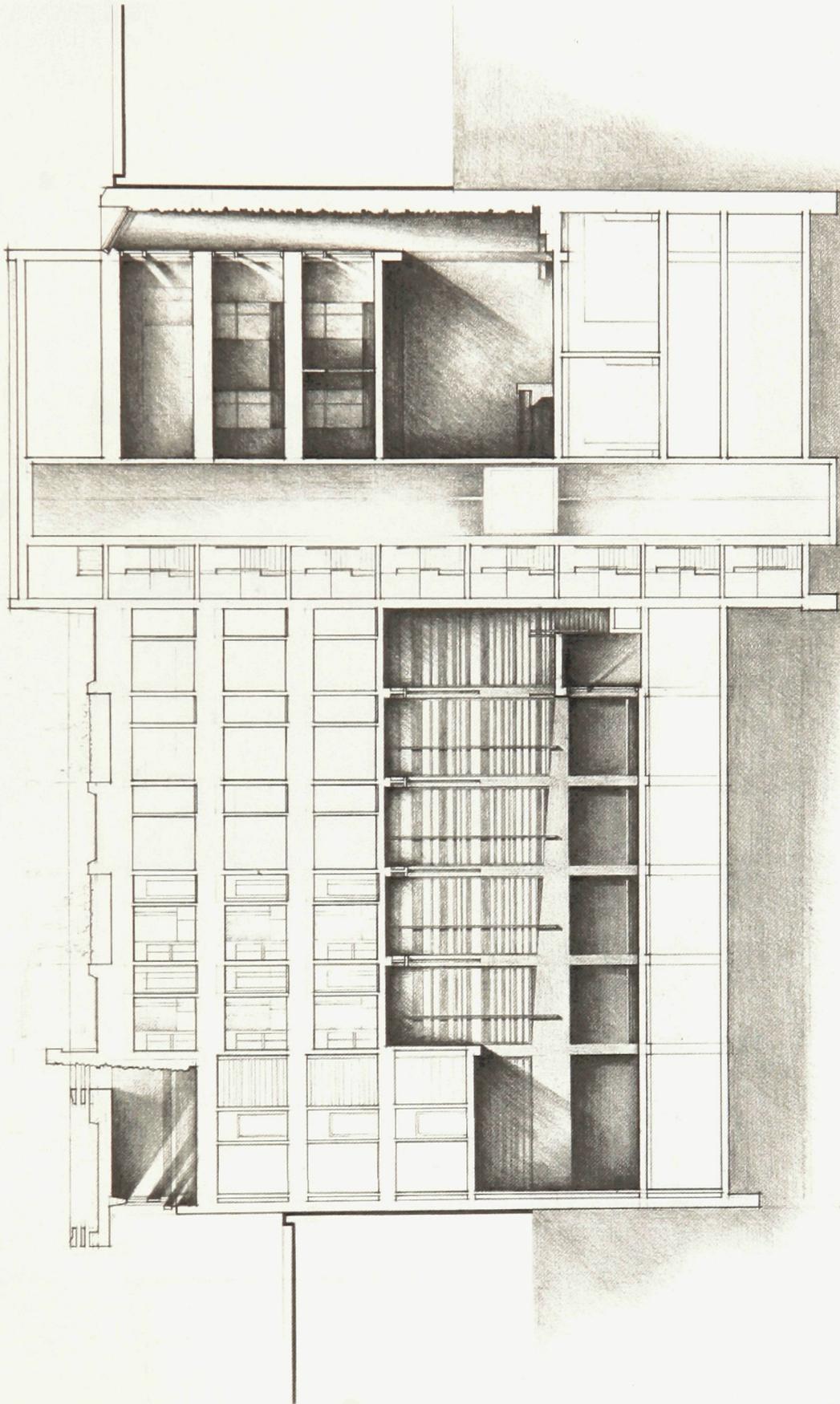


Plate 20 Building cross-section through gymnasium and foyer, 1:100. Graphite on Fabriano paper, 30"x22".

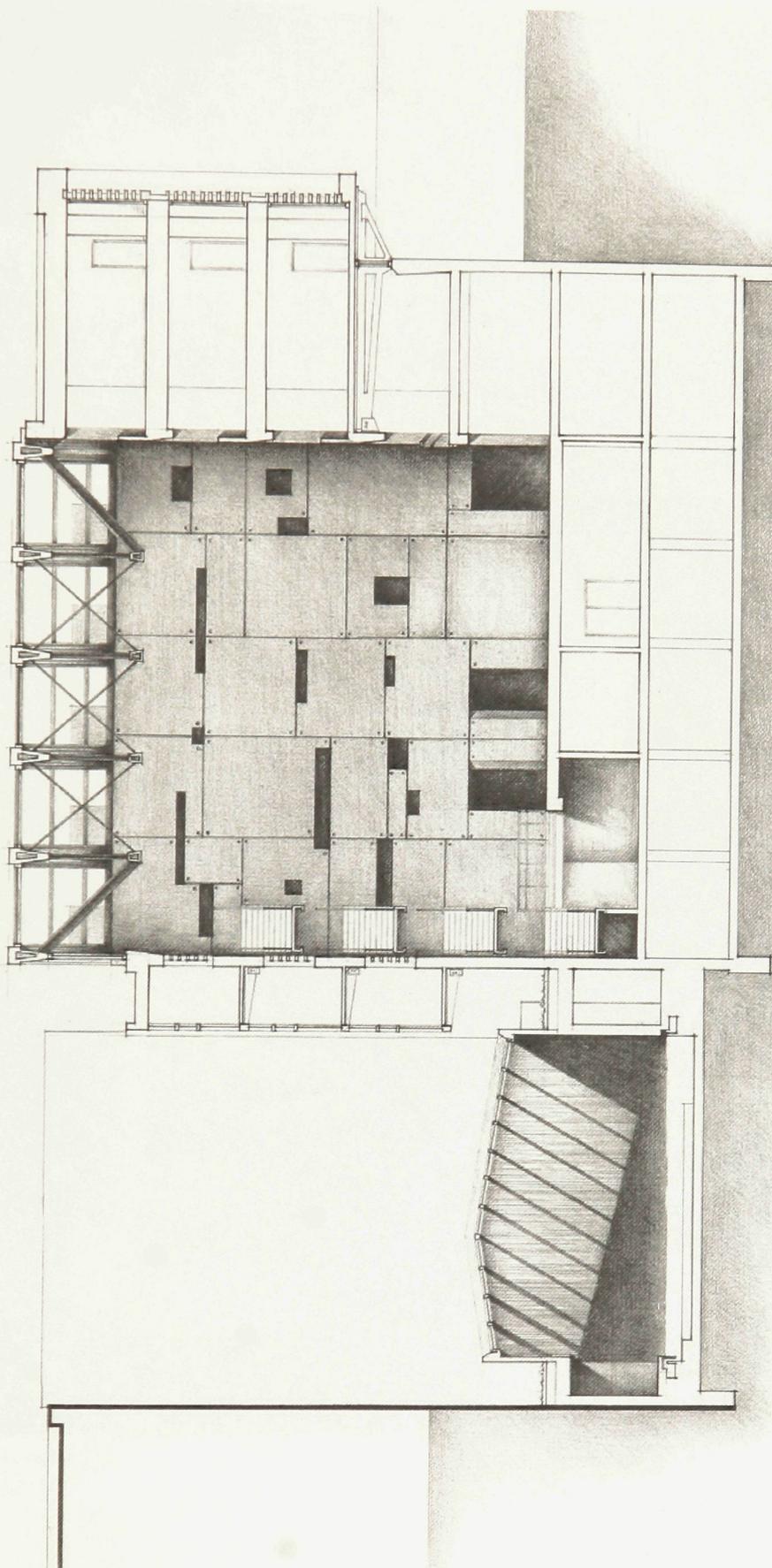


Plate 21 Building cross-section through baths and atrium, 1:100. Graphite on Fabriano paper, 30"x22".

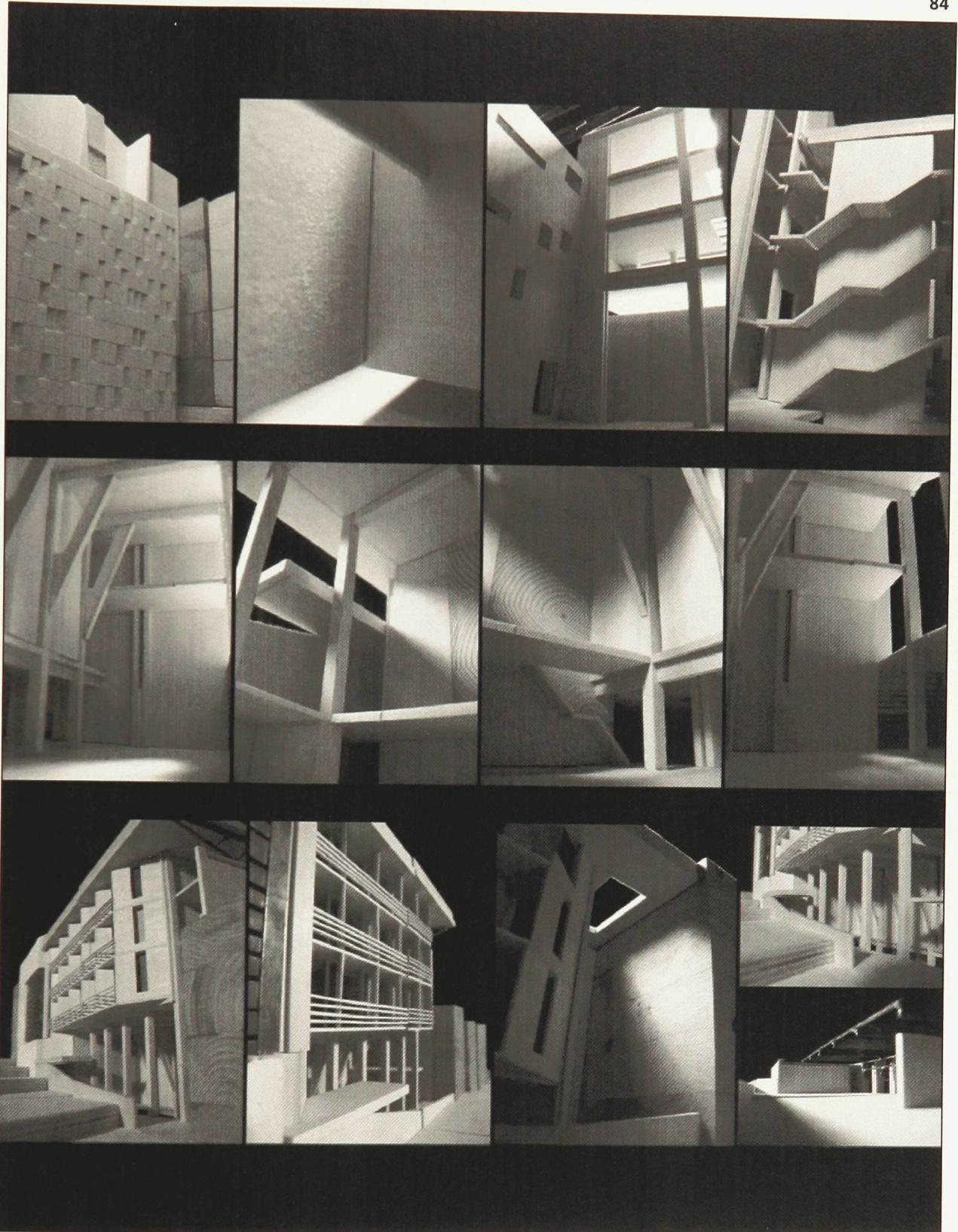


Plate 22 Building model vignettes.

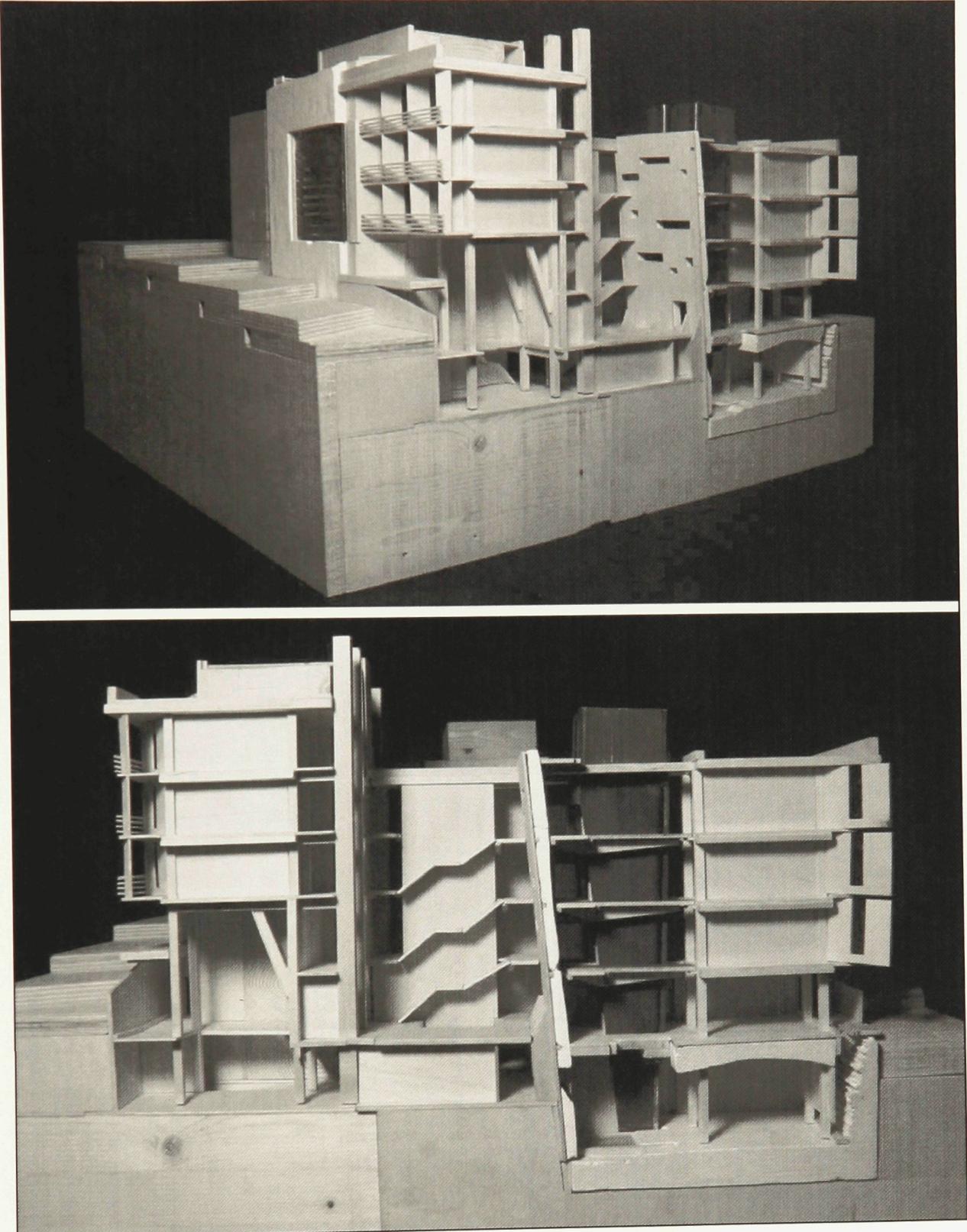


Plate 23 Building model, 1:100. Basswood, plaster, and steel.

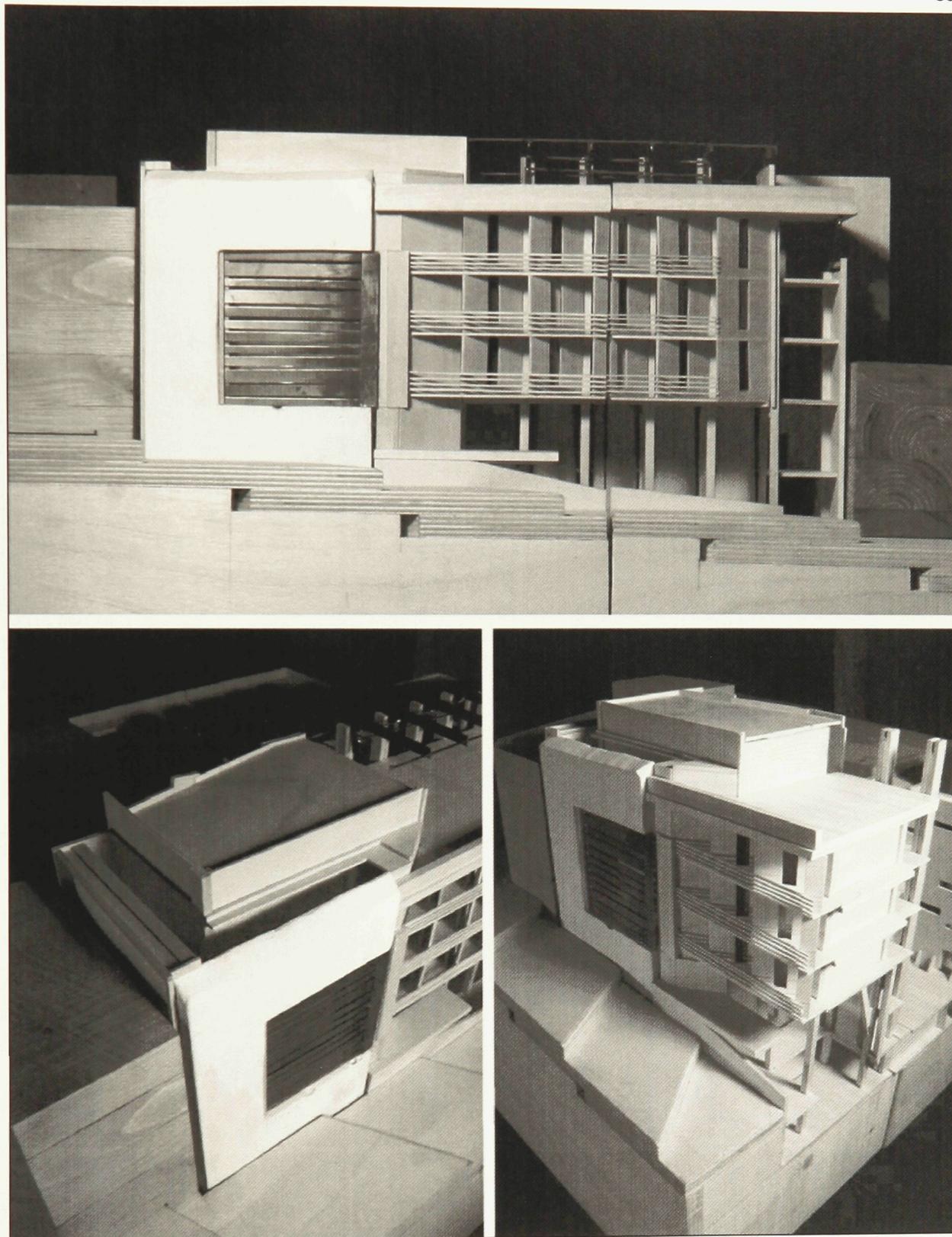


Plate 24 Building model, 1:100. Basswood, plaster, and steel.

Chapter Notes

- ¹ Used as a chapter heading in an article written after the Government of Canada declared Boulevard St. Laurent a national historic site. “Boulevard St. Laurent: The Main of Montreal,” 2005, *Parks Canada*, 26 Apr 2006.
<http://www.pc.gc.ca/culture/proj/main/blvd_e.asp>
- ² Aline Gubbay, *A Street Called The Main* (Montreal: Meridian Press, 1989), p. 57.
- ³ Marvin Berson, owner of a funeral monument business, quoted in: Louisa Taylor, “The Main Chance,” *Montreal Magazine*, October 1989, p. 53.
- ⁴ Aline Gubbay, *op. cit.*, p. 101.
- ⁵ André Lortie, ed, *The 60's : Montréal Thinks Big* (Montreal: Canadian Centre for Architecture, 2004), p. 76.
- ⁶ Aline Gubbay, *op. cit.*, p. 106.
- ⁷ Aldo Rossi, *The Architecture of the City* (Cambridge: MIT Press, 1982), p. 29.
- ⁸ *Ibid.*, p. 96
- ⁹ *Ibid.*, p. 96

CONCLUSION

Health and well-being are fundamentally dependent on one another. For that reason, this thesis set out to explore the way we perceive health in contemporary society, the negative effect this perception is having on well-being, and how architecture can provide part of a solution.

As a means to address this situation, this thesis outlines the need for a new type of healing environment—which much like the obsolete historical institutions—is not shaped by the needs of professional medicine, but by the human condition. By acknowledging that people will inevitably feel pain, suffer, and die, the architect should accept the secret nature of healing and sickness by providing the convalescent with

environments that provoke the recognition of their perplexity and spirituality within.

The hegemony of professional health-care has directly affected society's attitude towards health and has created a dependence on professional care. These two factors combined have resulted in a loss of body autonomy that must be addressed seriously. Hospitals are necessary buildings, not because of their specialized planning, but because they represent a community of care. However, the concept of communal care does not require healing architecture to be sterile, uncomfortable and overtly institutional. Hospital architecture should adopt alternative design solutions that place the convalescent within the structure of everyday life, a cyclical continuum that orients and encourages self and communal care through a familiar edifice. This is possible by looking to the unspecialized quality of our homes as evidence to the simplistic requirements for well-being.

As a Canadian, health-care has always represented a nationally funded service meant to ensure the assistance required for healthy living is provided for all individuals. Yet, in Canada, hospitals continue to be built according to the needs of modern medicine, which—as an increasingly scientific and technological based knowledge—in turn stipulates what are the actual health needs of society. As argued in this thesis, this control is inhibiting our well-being. In turn, those responsible for designing architecture for the convalescent should critically challenge those demands of modern medicine by adopting an alternative design perspective that utilizes engaging sensorial experiences for

the patient, rather than specialized institutionalization. By enticing our primordial human senses through tranquility in darkness, colour enchantment and material sensuality, architecture becomes a responsive, therapeutic construction of space that acknowledges fundamental human characteristics, while remaining unobtrusive to our survival instincts.

Architecture, like health-care, is for the people and therefore must respond to their needs. As medicalized life becomes increasing ubiquitous, and society becomes unable to grasp the art of self and communal care, healing architecture can change and provide an alternative directed to the primordial characteristics of humanity.

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