

rumination on a post humanist forum

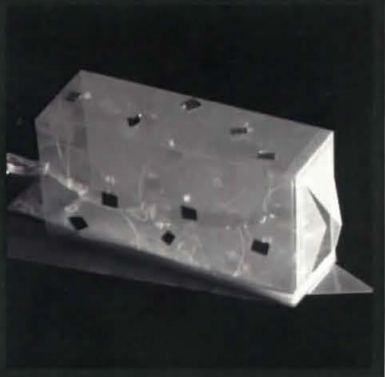
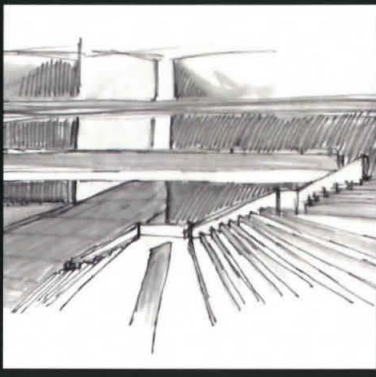
creating a new forum for the 21st century



fargo, north Dakota

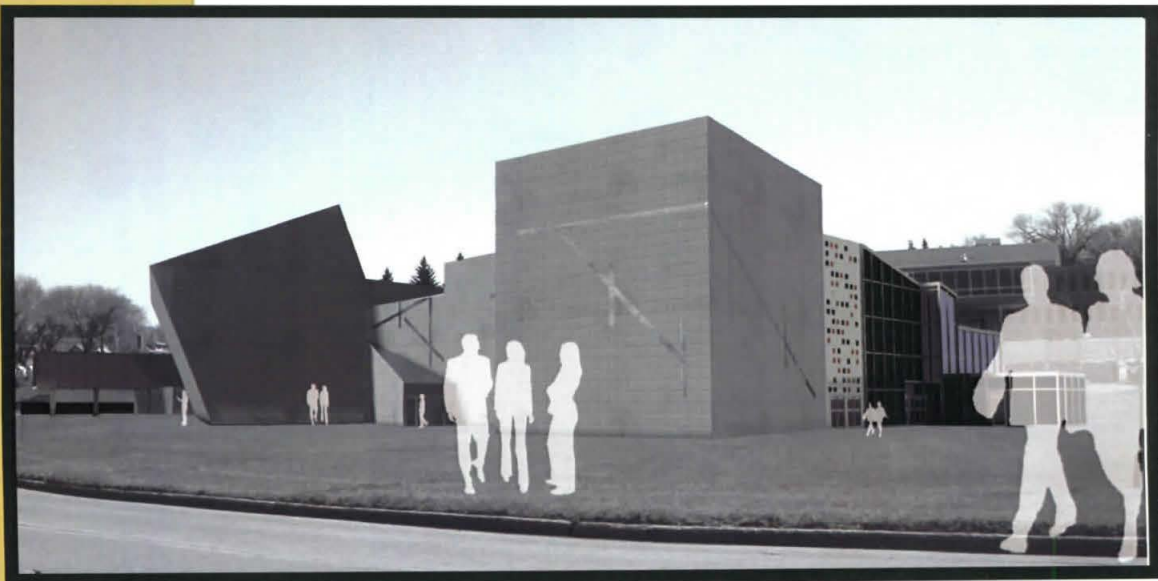
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undergraduate design thesis
by katie l. evans
April 24th, 2006



Evans, Katie L.
Rumination on a post
humanist forum

Arch.
Thesis
2006
Evans



reality is contingent upon perception...
the truth lies in how you ground it.

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RUMINATION ON A POST HUMANIST FORUM
...CREATING A NEW FORUM FOR THE 21ST CENTURY
FARGO, NORTH DAKOTA


A Design Thesis Submitted to the
Department of Architecture and Landscape Architecture
of North Dakota State University

By

Katie L. Evans

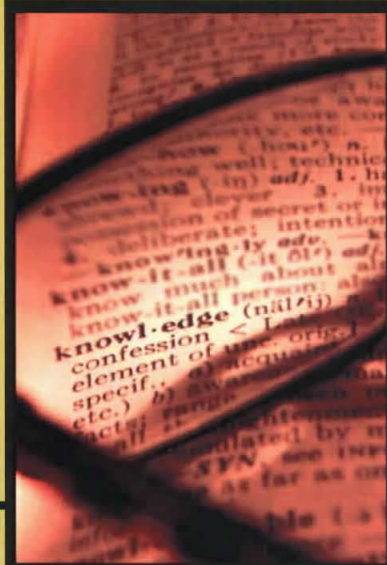
In Partial Fulfillment of the Requirements
for the Degree of
Bachelor of Architecture


Primary Thesis Critic
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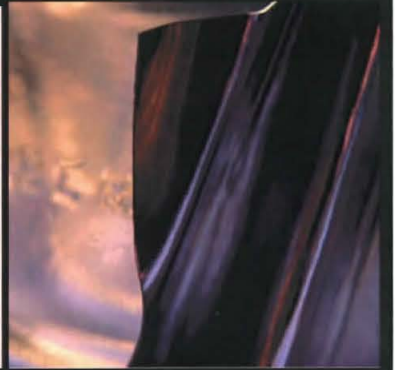
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May 2006
Fargo, North Dakota



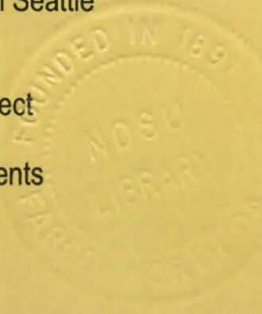
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a public declaration of intentions



The intention of this thesis is to explore the relationship between architecture and the human condition in the digital age.

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statement of intent...

...abstract

Rumination on a post humanist forum is a new typology for Fargo, ND. The theoretical premise: the examination of what it means to store and access information today and in the future. The buildings total gross net is 56,276 square feet.

...building typology

- ...this is not to say that the library won't
- have a role in modern society. rather that the library will split, this division becoming the genesis of a new form. an interactive forum for the exploration of ideas.

As our society steps into the age of advanced technology, the notion of a library as a building typology will change. With the inevitable progression of the digital age, the process of locating and obtaining information will also change. This suggests that a new venue for the exchange of information, knowledge, and technology is necessary. However, this exchange is not necessarily a library, but the typology of a library can be explored as a stepping stone upon which to begin further investigation. In response to these new technologies we need to generate a new set of formal relations, develop a new library paradigm, and better respond to the changing needs of our society.

...theoretical premise

The project is a library for Fargo, ND. The theoretical premise: the examination of what it means to store and access information in the library of today and in the future. Design metaphors, analogies, and/or tectonics will be developed from this examination.

...project justification

The changes brought forth by the information age have transformed the means by which we communicate and the very nature of communication. These changes demand an examination of the architectural form making processes for this new building typology. By allowing technology to inform design, we can break down the core components and challenge the way we approach architecture. Technology and the exchange of information opens up a whole new realm of possibilities, and I believe by analyzing the processes in architectural design we can unfold these complex ideas and put them together in a new way. This is necessary because the paradigm shift will be forward, not backwards.

statement of intent...

...the narrative

proposal...

...metaphor stems from the greek word *metaphora*, which means "transfer." the underlying metaphor that will drive the overall form of the design lies within the idea that information is the vessel through which one can explore technology to gain and share/ "transfer" knowledge. it centers on the concept that in order to find a higher meaning you first need to expand your mind and think beyond the standard library as a building typology for the future. due to the advancements of technology we, as a society, will be able to access knowledge, not just from the tactile world of books. we will be able to use other means such as building form to experience and share knowledge.

How does technology effect the built environment? What impact will this have on the way we think about, experience, and approach design? In today's ever expanding global society, understanding technology to gain knowledge has clearly become a benchmark, and information has come to the forefront, as one of the world's greatest resources. This thesis will attempt to examine through an in-depth architectural investigation, how advancements in the use of technology in today's society affects how we gain access to stored information, and how we, as users, participate in the exchange of knowledge. I want to further explore the idea of how technology directly affects the inner workings of a building type, and how people use a space to experience and explore knowledge.

...can technology influence buildings to become as malleable as the human mind...? i will focus on creative methods to influence building form, by implementing sustainable design techniques to create an interactive environment for inhabitants to immerse themselves in knowledge. i will concentrate on simplicity of form; take a minimalist approach to sustainable design techniques, by taking materials and in a sense "strip" them down to their basic components to reinforce critical form making as a theme.

This thesis will also attempt to develop a basic ideology to investigate how the advancements in technology directly impact building form. I will study how technology influences the physical form and properties of a building and explore technological advancements in construction methods and materials, to examine what impact they have on the way humans work with and within buildings. I also want to explore the contemporary realm of architecture, to make a conscious effort to understand the influences digital technologies have on complex forms. Through the use of digital technology I want to create adaptable architecture that changes shape and surface properties to redefine what it means to have a "smart building."

...within this split i want to focus on..
knowledge...

*the idea of creating space where
you can obtain knowledge.*

reflection...

*the idea of creating space to ex-
plore what you have learned,.*

exchange...

*the idea of creating space to
encourage social interaction to
exchange what you have learned.*

*...knowledge & information, they are not
one in the same... you gain knowledge by
seeking out and exploring new information.*

I want to explore the social implications of technology and how it influences a building's programmatic requirements. As our society shifts into the age of global technology, how will knowledge be shared? When you consider the typology of a library, whose sole purpose is to provide the public with resources, what will happen to the library as we know it today with the expansion of computer and internet technology. This is not to say that the library won't have a role in modern society. Rather that the library will split, this division becoming the genesis of a new form. An interactive forum for the exploration of ideas. Can we, as architects, change human perception to attempt to answer the phenomenon; the advancements made in technology can positively impact the way we gain knowledge.

...user/client description

- *...with the development of the information*
- *age and increased availability of online*
- *internet resources; the current library model requirements will change and the major quantitative and qualitative requirements of these groups will be developed from the research and data analysis.*

The clients for this project include city government officials, and since this project is used by the public, the immediate surrounding community. It will be owned and operated by the city of Fargo and staffed by personnel with expertise in the area of community interaction, performing arts, meditation, in addition to, those with proficient knowledge of computer and digital technology. Users of this new forum will include, but are not limited to; employees, students, tourists, and the general public. Ages rang from toddlers to retired persons and everyone in-between.

...the new forum or library split that i am proposing will focus on how we, as users, explore knowledge, and how it can be achieved through such broad activities as personal meditation (reflection), and social interaction (exchange).

- ...i want to create an interactive form for
- the exploration of ideas, and focus on the
- users. design the vessel that will celebrate technology and it's positive impacts on society.

In the current library model, the individual requirements for each age group vary greatly. Children require space to spread out, explore, and discover the world digital technology. Adolescents require space conducive to reading and access to internet technology. Teenagers and college students require adequate space to study and conduct research, such as access to online search engines and electronic journals, etc. Adults and retired persons require access to internet technology, reference materials, and conference spaces. Also in the current library model, there is a noticeable peak usage associated with the different age groups. Small children, school-aged children, and retired persons tend to utilize the library the most during morning and early afternoon hours. Whereas, use patterns in the evenings usually include a greater number of students, high school and college-aged. Weekends vary but usually tend to see the broad spectrum of users.

...major project elements

The use of technology and its impacts have drastically altered the library as a building typology, creating a need to redefine or split the major elements of the library design. The intent of this project will be to define a new forum for the exchange of information that responds to the ever changing needs of its users, and encourages all ages to seek out and share knowledge. Thus, the major project elements will be developed from the research and data analysis.

The major project components of the existing library model include: library stacks, quiet study rooms, administrative and technical services, archive space, mechanical and storage space, computer clusters and technological services, meeting/conference rooms, restrooms, children services, audio-visual stacks, reference stacks, reference desk, general staff facilities, parking, circulation, book binding and repair space, as well as, book check-out and information areas.

...site information: macro to micro

The site which I am considering is located on the edge of downtown Fargo, the property address is 653 8th avenue south.

This site is bounded on the north by 6th avenue south, and Island Park, within which you can find such amenities as a public parking lot, tennis courts, bike trails, etc. Located to the south is the R.D. Offutt Company building, and Hawthorn public school, after which the site is bounded by 8th avenue south. To the west, the site is bounded by the RDO parking lot and three apartment buildings and to the east by an apartment complex and residential housing. In terms of area the site is roughly 4.66 acres. (203,034 square feet) There is a sidewalk that runs along the boulevard to the west, as well as, to the south just a long the property line of the RDO building which defines an edge, also at which the site slopes substantially. The major landmark in close proximity to the site is Island Park, thus connecting the site back into downtown Fargo.



...site map

<http://gis.ci.fargo.nd.us/website/fargo/disclaimer.htm>



picture 1



picture 2



picture 3



picture 5



picture 4



picture 6

Site Pictures:

1. Standing on the corner of 7th street and 6th avenue south looking south over site.
2. Standing on the corner of 7th street and 6th avenue south looking southeast over site.
3. Standing on 7th street looking east across site at the apartment complete and residential housing.
4. Looking south from 7th street, showing some of the existing site features.
5. Picture of the RDO building.
6. Standing in front of the RDO building, looking north across site.

The site currently functions as two softball fields. Other features currently located on the site include; trees along the boulevard to the west, north, and east. To the south there is fencing, a rock bed, and evergreen trees that define the edge of the slope. Due to its topology a majority of the site junctions as a levee during seasons of substantial rain fall and flooding, therefore, proper drainage will be vital. The site currently also gets excellent solar access and provides great views.

The building typology that I am proposing is a public building, thus I feel that the site has to be accessible to the masses. I feel this location is extremely accessible, it can draw people in from all walks of life, being at it is located in the center of a diverse neighborhood comprised of a city park, residential housing, local area businesses, as well as, a public school. Due to this unique position this site could serve as a strong node in revitalizing the downtown area, by playing an important role in emphasizing the connection from public to private. It ties in nicely by providing linkages to Island Park and the adjacent trails and bike paths. This site is also appealing in the fact that it offers a challenge in regards to dealing with a substantial topological variance, which is rare to find in the Fargo-Moorhead area.

Site Pictures:

7. Standing in front of the RDO building looking northeast.
8. From the sidewalk to the north of the RDO building, looking down to the east of the site.
9. Picture of the Hawthorn school from the north.
10. View looking at the east boundary of the site.



picture 7



picture 8



picture 9



picture 10

Prevailing Wind Analysis:

From observation:

- low buildings to the west of the site provide little wind block.
- taller trees to the north create a wind break across a majority of the site.
- there is a wind barrier to the south due to the slope of the site and the RDO Building.

Fargo's average wind speed measures roughly 13 miles per hour. No month is windier than the other, thus wind is a constant factor.

Annual Precipitation:

In Fargo, it rains at least 100 days out of the year with an average precipitation of 19.6 inches per year, with the rainiest months being May through August.

Acoustical Characteristics:

Noise heard from the site is due to three factors:

1. Traffic along 7th street, and 6th avenue south.
2. Island Park: tennis courts, etc.
3. Hawthorn School: children playing outdoors.

Site Pictures:

11. View looking toward the northwest corner across site.
12. View looking west across site, at apartment buildings.
13. View looking across site to the south. (western side)
14. View looking across site to the south. (eastern side)



picture 11



picture 12



picture 13



picture 14

proposal...

...project emphasis

Environmental: to reinforce critical form making as a theme. An exploration into how technology directly impacts building form and the development a "smart building" for the future to house the knowledge exchange of the future. I intend to do an in-dept investigation to recognize the different technologies employed in construction, and analyze the information in order to develop a better understanding of how technology influences form and vice versa.

-
- *An in-depth examination of how people,*
- *as well as, buildings advance along with technology.*

Flexibility: the ability to adapt to future programmatic changes. An exploration into the direct effect technology has on the inner workings of a building type, and how people use a space to experience and explore knowledge.

...definition of a research direction

I intend to implement a mixed method, quantitative/qualitative approach to the research and analysis of this thesis project. By allowing the theoretical premise to guide the research I can employ a concurrent transformative strategy. To implement this strategy successfully both quantitative and qualitative data will be gathered concurrently, and priority will be assigned by the requirements of the theoretical premise. Integration of the data will occur at several stages in the process of the research and will depend on the requirements of the examination of the theoretical premise. Likewise, analyzing, interpreting, and reporting of the results will occur throughout the research process.

proposal...

Quantitative data will be gathered from such strategies including but not limited to statistical data, which is gathered and analyzed locally or obtained through an archival search, and scientific data, through which measurements are obtained through instrumentation and/or experimental research which will be gathered directly or through an archival search. Whereas, qualitative data will be gathered from local surveys, archival research, or direct observation and interviews.

• • •
• *...quantitative data research will play a vital role in guiding the overall design of my thesis project.*

...design methodology

The design methodology used to guide this thesis involves an implementation of a graphic analysis through the use of such tools as; an interaction matrix, an interaction net, a venn diagram, and a morphological chart, etc. A language based design methodology will also be employed through three different approaches. First, from the stand point of philosophical logic, to bring forward as an argument or as evidence and make a conclusion from a set of premises. The second approach will be implemented through an examination of objects or events as they appear in experience, known as phenomenology. Lastly, by exploring logical argument or taking a dialectical approach.

Case studies and contextual investigations will be used to discover precedents for such phenomenon's as; spatial relationships, circulation patterns, sustainable material use, technological impacts, and elements of successful building layouts. Research will be comprised of an investigative study into the specific processes and needs of a library, as well as, the analysis and study of computers and technology and their influence over a buildings program and design. This will include visits to interactive resource centers, libraries, and technology centers, as well as, interviews with librarians, and computer technicians. By doing this I will be able to develop the specific program requirements for this new typology through the study and research of different technologies that influence building type. Then, by analyzing these technologies I will gain a better understanding of their effects in relation to form. An extensive study of literature and technology will assure that this project addresses the specific requirements for the library of today and in the future.

...documentation of the design process

As a means of documenting my design process digitally, I intend to use photographs of models, scanned images of sketches, as well as, digital drawings. I intend on keeping a thesis sketchbook to document every step of the design process, where I will date all drawings and list pros and cons of all concepts explored.

...schedule of work

October 13 th	Draft of Proposal Due
October 27 th	Thesis Proposal Due
October 28 th -November 9 th	Research of site investigation, users, and functions.
November 10 th -November 22 nd	Synthesis of research into program data, defining program elements, and program statements.
November 23 rd	Draft of Thesis Program Due
December 15 th	Thesis Program Due
December 12 th -16 th	Finals Week
December 17 th -January 9 th	Semester Break -Refine Program
January 10 th -January 13 th	Refinement of Project Objectives & Underlying Metaphor
January 16 th -January 20 ^h	Site/Context Analysis, Story Board Layout
January 23 rd -January 27 ^h	Conceptual Design & Define Metaphor
January 30 th -February 3 rd	Conceptual Design & Spatal Layout
February 6 th -February 10 th	Conceptual Design
February 13 th -February 17 th	Refine Story Board Layout
February 20 th -February 24 th	Schematic Design
February 27 th -March 3 rd	Schematic Design
March 6 th -March 10 th	Sustainable Design/Computer Model
March 7 th	Mid Semester Thesis Review
March 13 th -March 17 th	Spring Break
March 20 th -March 24 th	Design Development/Computer Renderings
March 27 th -March 31 th	Presentation Drawings & Presentation Boards
April 3 rd - April 7 ^h	Build Model
April 10 rd - April 14 ^h	Finish Presentation & Plot
April 17 rd - April 21 ^h	Refine Oral Presentation
April 24 th	Thesis Projects Due at 4:30pm
April 27 th -May 4 th	Final Thesis Reviews
April 28 th	Draft of Thesis Document Due
May 11 th	Final Thesis Document Due at 4:30pm

proposal...

...previous studio experience

2nd Year Fall Bakr Aly Ahmed
Form Studies
Children's Daycare Center
Cultural Housing Development

2nd Year Spring Milton Yergens
Office Building
Materials & Design (Concrete Design)
St. Marks Coptic Canadian Village

3rd Year Fall Shannon McDonald
Design from Nature
North Dakota State University
Bus Shelter
School Project

3rd Year Spring Mohamed Elnahas
Earth System Science & Policy
Building
Colombia Convention Center
(Steel Design)

4th Year Fall Rebecca Pinkston
Analysis & Renovation
Frederick's Floral
Synthesis of Parts
Nolli's Figural Space
Spatial Sequence
Role of the Block
St. Paul Riverfront Redevelopment

4th Year Spring Darryl Booker
San Francisco High Rise Project
Marvin Windows Renovation &
Adaptive Reuse

5th Year Fall Ganapathy Mahalingam
On the Verge of Echoes
Rivulets of Equal Fathom
Volumes of Heat
Spaces of Visual Desire
Nestling in the Mother

5th Year Spring Stephen Wischer
Rumination:
a post humanist forum

...apa standard reference list

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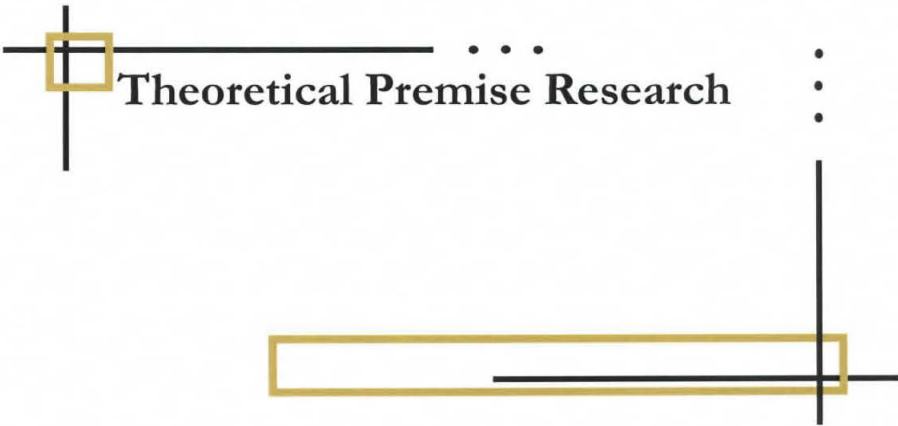
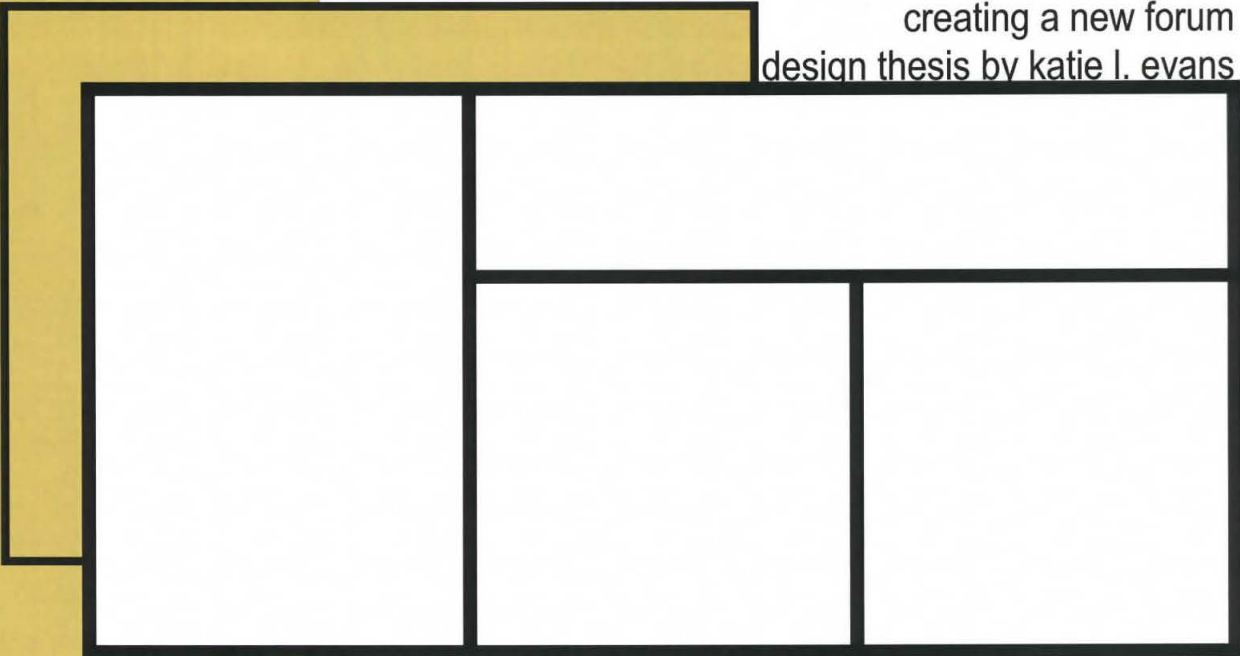
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rumination on a post humanist forum

creating a new forum

design thesis by katie l. evans



Can technology be viewed more positively? Consider for a moment the phenomenon of familiarity. What factors govern human nature to the extent that they would effect and/or contribute to a persons underlying drive to 'grow into,' or become familiar with, and eventually identify with their environment? Is it simply a matter of process? What does this tell us? "What exactly is this process of 'growing into,' becoming fond or, familiarizing oneself with our environment? And more especially, within the context of this particular enquiry, how might this phenomenon prompt us to rethink the question of digital technology? How might, for example, the overtly negative stand taken by certain theorists on the supposedly alienating effect of technology be revisited."³ All of these questions are addressed to us, the architects, who are practicing in a culture that is still surprisingly often times ruled by a Heideggerian outlook.

Let us examine Heidegger's attitude toward technology. In his essay 'The Question Concerning Technology' Heidegger was not opposed to technology per say, but rather he saw in technology a mode of 'revealing,' and it was in this 'revealing' that Heidegger believed the danger lay. 'The essence of modern technology,' as he states it, 'lies in enframing. Enframing belongs within the destining of revealing.' According to Heidegger, the main problem lies in this 'destining' of this revealing, in that it 'banishes man into the kind of revealing that is an ordering.'⁴ And this form of revealing is an impoverished one as it denies the possibility of a deeper ontological engagement. Rather than opening up to the human it therefore constitutes a form of resistance, in that it blocks our access to obtain truth.

According to Heidegger's outlook, as our society steps into the age of digital technology we find a condition in which humankind treats nature as nothing more than a resource, something that we can simply stockpile and exploit in anyway we see fit. Heidegger believes that the issue is not so much of nature being diminished by our society, but rather the problem lies in the idea that inevitably humankind will find itself in the same circumstance. Technology therefore comes to be associated or linked with a form of alienation. According to Heidegger the evolution of technology prevents humankind from being in touch with a richer form of 'revealing' which functions within a more poetic dimension. It is extremely important to point out and understand that the danger does not lie in technology, but in its essence: 'What is dangerous is not technology. Technology is not demonic; but its essence is mysterious. The essence of technology, as a destining of revealing, is the danger.'³ Heidegger mentions of 'truth,' and how through technology we, as architects, are unable to obtain 'truth.' But what you have to ask yourself is 'Whose truth are we referring to?' Heidegger's approach addresses 'meaning,' an idea that it is to be unproblematically 'given.' Consider for a moment the idea of approaching this from an individual perspective, and treat meaning not as something universally 'given,' but in symbolic terms as that which may vary from person to person. 'Symbolic meaning- like beauty- lies in the eye of the beholder, but is no less real for that.'³

Today every facet of ours lives changes on an endless continuum. We, as architects, need to challenge the world to rethink the relationship between humankind and technology. Human beings have an innate ability to adapt, and familiarize themselves with their environments. We need to move beyond the old suspicion, emanated from a Heideggerian way of thinking, that technology, and more especially digital technology, is and always will be a source of alienation. With the increasing changes in our society it is time to adopt a more flexible and tolerant attitude toward digital technology. It is time to break free and think beyond the standard way of architectural design methods and embrace the digital realm.

Heidegger tells us that architecture and the act of building do not evolve out of the void. He challenges us to establish our patterns of dwelling on needs which are specific to the human being. In Heidegger's essay 'Building, Dwelling, Thinking' he asks us to think about what it means to dwell as a first step towards meeting newfound challenges. Heidegger would argue that mere pragmatic concerns of building do not bring us any closer to effective solutions nor do they establish a system of architectural ordering:

...this thinking about building does not presume to discover architectural ideas, let alone give rules for building... The real plight in dwelling lies in this, that mortals ever search anew for the nature of dwelling, that they must ever learn to dwell. ...Yet as soon as man gives thought ...it is a misery no longer.⁵

Thus it is our responsibility, as architects, to search for the nature of dwelling given the unique challenges of modern-day technology, communication, space, and place. According to Heidegger, dwelling is the basic character of our human being, the way we are as mortals on the earth. To dwell is not merely the occupation of place or building as it is generally regarded today. As humans, we build because we are dwellers. To understand fully the nature of dwelling, as it is to apply to this thesis design thesis, we can begin by investigating the significance of space.

Space, most simply, is undefined expanse, the interval of between. Space is remoteness. Space is often abstracted through mathematics as three-dimensional geometries. Heidegger insists that dwelling can not occur in 'undefined space.' He suggests that we make a distinction between a mere 'space' for a building and a 'place' for a building. This notion of space as an undefined expanse takes on a new significance in light of the development of cyberspace. Humans will soon be entering this new realm of virtual reality and Heidegger's position may prove useful in considering and thinking about a new dwelling in space.

The way in which we experience our realities is drastically influenced by digital technology. This is better grasped if you consider the phenomenology of presence. Maurice Merleau-Ponty writes, 'we never cease living in the world of perception.' He argues that the nature or essence of our being is based on our perceptions. Merleau-Ponty contends that perception grounds our basis for being, and not the rationality of intellection or mathematics or science. Therefore, life is essentially an exercise in perception and experience. It is important to understand that perception is not a function of form and matter, it is in fact an 'action' in the world that is forever unfolding. This alludes to the idea that perceptions are not solely based on certainty of ideas, but rather, ideas are based on our ability as human beings to perceive the world in which we inhabit. Descartes said: I think, therefore I am, however Merleau-Ponty would say, I am, therefore, I have the innate capacity for thought. This very notion eludes to the level on which the dweller can communicate with his/her environment; both in the physical sense and within the realm of cyberspace.

Perception is not concerned with the 'truth,' more over, its essence lies within the realm of the 'real.' Perception requires presence or the imagination of presence in order to validate existence. This is to say, that the dweller exists within the perceptions of reality and not within the 'truth' of abstract ideals. This applies to the challenges that are brought forth by the consideration of the virtual realm that is cyberspace.

What is the essence of place? Norberg-Schulz utilizes Heidegger's definition of dwelling as a point of departure to define the essence of place. Human life is so interrelated with architecture that an individual can hardly comprehend the extent to which the built environment shapes his/her outer and inner life. Existence and residence are essentially the same in their lexical definitions, 'indicating that the language has its own means of defining human existence through one's dwelling.'¹⁰ We live in a place that, according to Martin Heidegger, connects earth and heaven, gods and mortals. Therefore, an individual builds a dwelling and the architect is the professional who consults on what type of dwelling they need, and what spaces would best suit them. A human being lives in the structures imposed by the architect, thus an architect is the primary caretaker of human life. The architect's duty is connected with the harmonious results of the architect's activities and how it responds to the existential needs of the individual.

The greatest architects of twentieth century, from 'intuitivists' to 'technologists,' all spoke about human space and the mission of the architecture. Frank Lloyd Wright, who provided the basic principles for modern architecture, also responded to the post modern architectural striving that fuses phenomena of different cultures, thereby affirming human spirituality and the existential meaning of architecture. Throughout his work he attempted to 'bind the Western and Eastern (Japanese) traditions of space conceptions and promote humanized forms for an individual that would allow a human being to escape the bias of 'dire artificiality' and rediscover one's natural basis.'¹⁰ Wright emphasized: Architecture must be intrinsic to Time, Place and Man with insistence on the existential aspect of architecture. Consider for instance the comparison of a philosopher to an architect. Both are concerned with human existence and with the ways the individual finds one's place in the world. 'Wright, in ingeniously using technological novelties, was supporting his argument not by invention or inventiveness, but by the nature and sanctity hidden in it. On the assumption that there are no profane things in nature he insisted on the sanctity being expressed through the structured forms of architectural design and thus reinforcing the effectiveness of sanctity.'¹⁰

Heidegger has been interpreted as holding a view of architecture as 'not only an institutionally embedded collection of discourses but also one agent among others in the shaping of the world of things.'⁸ The importance of technology and architectures struggle to grasp its potential is not a new concept. History shows us the existential dimension of 'truth' and it was Louis Kahn who understood this concept when he asked the most important question 'What does architecture what to be? Louis Kahn said, 'In general, the concretization of the existential dimensions depends on how things are made, that is, it depends on form and technology, inspired technology.'⁹

Do we need to return to a qualitative, phenomenological understanding of place and its role in architecture? First we need to consider Heidegger's concept of dwelling. Dwelling in its external sense is the purpose of architecture. Man dwells when he experiences the environment which he inhabits as meaningful. Therefore, dwelling implies something more meaningful than 'shelter.' It implies that the spaces where life occurs are in-fact places, and a place is a space which has a distinct character. According to Norberg-Schulz, 'since ancient times, the genius loci, or 'spirit of a place,' has been recognized as the concrete reality man has to face and come to terms with in his daily life.'⁷ If you were to follow Norberg-Schulz theory, then architecture means to visualize the genius loci, thus the essential task of the architect is to create meaningful places, whereby helping man to dwell.

In today's complex society, we are constantly searching to find meaning in our lives, our community, our surroundings, and within the spaces that we inhabit. Our society is changing so rapidly. Cities that were once formed by the contours of our urban fabric, are now gridded sprawls of skyscrapers, and strip malls. Even our parks are designed and laid out with artificial programs built to guide us along restricted paths. Hence, causing a limitation on physical, unadulterated exploration.

The idea of space is a tricky concept, and it is often difficult to define it. Especially when the concept of virtual spaces comes into play. No matter which realm of space you are referring to, the essence of space remains the same. Space continues to create epiphanies. It advances society; it creates and re-creates communities. 'Structures enclosing space and closing out other space tells a powerful story of human origins. Sacred space offers a place to experience the tangible paradise or at least a portal to the celestial one. Space adapts to our needs as it fills with discourse and participation, or silence; it is the very fabric of our lives, past, present, and future.'¹¹ We must ask ourselves: How within the context of our rapidly changing world, do experiences with architecture, sacred, and social spaces impress upon the individual? How, in times when one's emptiness reveals itself in the form of excess do we live in our society, and encourage social interaction?

There is the unfortunate reality that we are not just simply 'cast into the world to reshape it; we are instead born into an immensely codified cosmos of administration, economy, hierarchy, and concrete relationships.'¹² What, then, do we do when we realize that our spaces are defined by their limitations, and that life is one constantly consisted of boundaries. As a society all too often we create borders to define our communities, in defence of our spaces, and for protection. What we need to understand is that these borders also limit human experience and chances for social interaction or chance encounters.

Describing design as a sequence of steps cannot convey the complexity of the social interactions that it embodies. Design is not merely a process, but a co-evolution of efforts and events in various places and times —both synchronous and asynchronous.¹² As digital technologies and connective systems begin to redefine traditional notions of place, space and time, how might architecture itself transform? The computer has gone from being an isolated box to becoming a part of a gigantic digital network that has reached every facet of our daily lives. And as much as some people would like to think it is not to the detriment of our society. The way and pace at which we connect, communicate, memorize, imagine, and control the flows of valuable information have changed forever.

By providing instantaneous communication, not bound by physical location, it can open up new ways of operating and sharing knowledge within the public realm. Moreover, by having a positive influence on the spatial development of a digital society, we as architects can encourage social interaction on another level. The idea is to create spaces in which different components come together and generate form; everything is interlocking. With the end product being the production of elegant architecture that completely integrates all the conditions. And at the same time trying to use new fabrication technologies, materials and their potentials, and integrate them in order to emphasize its elegance. Therefore, new programs, new materials, and new digital techniques will produce effects that re-define the spaces that we inhabit.

If we are to accept Moneo's position that design involves generating a new set of formal relations in response to new needs then we, as architects, need to respond to the new techniques/technology brought forth by the changes in our society. However, human beings will always want to have resource to materiality. While much business and social interaction will soon be displaced to the digital realm, it will have a reciprocal effect upon the physical realm, and will have a concrete impact on the material fabric of our cities. We are a society consumed with people searching for meaning and permanence, sometimes advancing before our spaces do. 'And while the most precious space may be found within oneself, it is only by virtue of the presence of others that we come to know our soul.'¹²

...the transfer of intention

Through the use of technology can architecture successfully reveal the possibilities of practice to communicate theory, on this higher plane? With the incorporation of electronic technology into our designs it is possible for architects to transcend the human plane and evoke a transformation into the realm of 'virtual space.' It is important to understand that architecture is not simply the technical resolution of a building, but that it is the creation of a work of art, in which the image of space crystallizes. Today, the union of the theory and the practice of architecture has become increasingly more complex.

Contemporary space often fails to successfully represent the changing needs of its users, and architecture is challenged in its ability to model the world of ideas. Due in large to the advancement of the information age; the main current in architecture has shifted it is now 'directed towards transparency given that society itself is becoming increasingly transparent alongside the development of information.'¹³

The underlying idea is to create strong architecture that is informed by the transference from architectural theory to practice. Take for instance Toyo Ito, before one can take an in-depth look at his work you must first understand the challenging framework behind his designs. Through his writings and designs Ito raises the discussion on the possibilities of theory as a representation within the practice of architecture, he explores the notion of 'making' as an act of transfer. 'Ito's architecture is creative in its marriage of both metaphorical and tectonic means to show the intention in the work.'¹³ Toyo Ito is known for his 'conscious efforts to eliminate imperfections in the act of transference from concept to object, or in other words, from theory to practice. Through his work metaphor serves as a 'tool' for 'mental imagining.' It is used to guide the creative process toward the exposure of idea and architecture, and the disclosure of the relationship between the two.'¹³

Ito sought to evoke a microchip metaphor with renderings both representative and abstract, and the frozen translucency and amorphous spatial organization. By implementing such metaphorical comparisons, he was able to explore the expressive possibilities of architecture in today's electronic age. 'It was in the Mediatheque competition project that allowed Ito to fully extend this metaphor to project both the contemporary nature of the building and his own understanding of the place of man and the media. In this project information technologies provide the starting point for design, and the various activities on the different floor levels are conceived in terms of participants engaging many types of information exchange from conventional to microelectronic systems.'¹³

We, as architects, are questioned to consider the physicality of the human body within the context of cyberspace, and the responsibility architecture has to the human body in the case that consciousness, awareness (sensory perception) had been projected outside the immediate context of time and space. By developing a new typology that addresses the modern-day needs of communication we can provide a gateway into the virtual realm of cyberspace. For the first time in history a human has the capacity to dwell in two places simultaneously. Architecture has the capacity to connect the dweller to place, to in a sense enforce a reading of place.

The concept of space has been crucial to the practice of architecture. According to Michael Benedikt space and information are, if not identical, then reciprocal in relation. 'All space is space for... the information of things to disport itself. Space both is, and is composed of, information.'¹⁴ Our society has evolved exponentially over to past century, and with the development of technology, the human body no longer requires a physical space to communicate. We can now communicate indirectly via a new realm, oftentimes referred to as cyberspace (a term coined by the science fiction writer William Gibson). We have essentially stepped through the door into the world of virtual reality where the boundaries are limitless. Technology has provided us with the ultimate in non-physical communication. It has gone to the extreme of no longer requiring the human body to have any direct, or for that matter indirect, participation in the phenomenon of communicating. In this new realm, communication is no longer limited to the simple broadcast of a message, but allows the broadcast or the projection of the body (that is the 'project-able' part of it, if we can make a distinction) into the dimension of 'passing-on' of the message, the network, the matrix, the airwaves via digital media. Communication in the new, 'physical' (to the sense only in a limited fashion)/ non-physical, non-body dimension of cyberspace reaches new levels of significance and presents new challenges.

In 'Cyberspace: First Steps' Benedikt also describes cyberspace as follows:

...A common mental geography, built, in turn, by consensus and revolution, canon and experiments; a territory swarming with data and lies, with mind stuff and memories of nature, with million voices and two million eyes in a silent invisible concert of inquiry, dealing making, dream sharing, and simple beholding ... Through its myriad, unblinking video eyes, distant places and faces, real and unreal, actual or long gone, can be summoned to presence. From vast databases that constitute the culture's deposited wealth, every document is available, every recording is playable, and every picture is viewable.

Virtual reality guru Jaron Lanier refers to an age of post-literacy and 'post-symbolic communication' where through the medium of cyberspace the projection of the body has the capacity to reach out across the void to touch, communicate, and commune 'in-body.'¹⁴ I think what Lanier was referring to is that the modern dweller of our times need no longer remain isolated given, the proper access, opportunities, and facilities.

We need to become reinvested with the potential of the digital design realm. How do we begin to understand this new realm, how can we embrace its possibilities? Traditionally, architects have focused almost exclusively on the material world, conceiving of architecture within the limited spectrum of 'built' construction. We have been focused on a world that is bound by rules. Today, we, as a profession, need to accept that many of these rules, much like those of a computer program, can be bent and some of them can even be broken. We need to plan and design for the future. We are now entering a stage in human evolution where architecture may even occupy the virtual reality of cyberspace.

Examined in its most primitive sense architecture is concerned with solving problems of form and design. These solutions eventually establish conventions of formal relationships that have come to be 'passed-on' as typology.¹⁵ In architecture, to raise the question of typology is to raise the question of the very nature of architectural work itself. What then is type? How is it derived? According to Rafael Moneo type can most simply be defined as 'a concept which describes a group of objects characterized by the same formal structure. Architecture is not only *described* by types, it is also *produced* through them.'¹⁵

Today, the profession of architecture is largely guided by a limited set of typologies that it draws upon to produce the product of everyday practice. Typologies are generally understood within the bounds of historical precedence and formalized classifications. Perez-Gomez makes reference to this source of typological thinking.

...the notion of type came into architectural theory only during the time of the French Enlightenment. It was put forward as the rational surrogate of meaning by architects who perceived the meaninglessness of architectural practice in the context of the modern world, but who dwells into the positivistic trap of identifying architecture with the buildings of history, open to a taxonomic classification.¹⁶

This suggests that typological thinking is therefore nothing more than a response to the cleansing tendencies of modern thought. The underlying flaw of historical-based typology thought is that it exudes only to seek precedence in buildings of the past. How is architecture, in a state of constant dependence on the past, supposed to remain meaningful and effective in light of changing cultural and social conditions? If architecture is a response to needs or specific problems, then in light of these new problems and new challenges the role or position of architecture must be challenged. Rafael Moneo in "On Typology" makes reference to the role of type in architecture:

...the most intense moments in architectural development are those when a new type appears. One of the architect's greatest efforts... is made when he gives up a known type and clearly sets out to formulate a new one. Often, external events—such as new techniques or changes in society—are responsible for impelling him toward this creation of a new type. ...a new type emerges—when an architect is able to describe a new set of formal relations which generates a new set of formal relations which generates a new group of buildings or elements...¹⁵

Moneo tells us that typologies grow out of solutions that are a response to specific spatial needs. But Heidegger tells us that we build because we are dwellers, because building is an integral part of our human being on the earth. If we are to accept Heidegger's position, than Moneo's definition of typology is not sufficient to explain the phenomenon of building and the resulting development of typology. If building involves much more than just programmatic solutions, but in some way relates to our being, then we must re-evaluate our understanding of typology and building type.

Is it possible to re-evaluate the source of precedence values in the hopes that they can lead to the definition of a new typology; a typology that defines its values not by the static formalization of question based on 'taxonomic classifications,' but builds a foundation of question based on human needs? While I feel that I must point out that basic human needs have remained the same, however, we can't ignore the fact that new challenges have arisen in our exploration of technology that have no precedence in the typologies of the past, and they must be addressed now and in the future. As architects, we are responsible for satisfying not only the present day needs of our clients, but allowing for future needs as well.

Posthumanism is an attitude on how to deal with the limitations of the human form. It is a vision of how to move beyond those limits by the radical use of technological and other means. It transcends the ideas and images of the world of classical Renaissance humanism to correspond more closely to the 21st century's ideas of scientific knowledge. Human knowledge is also no longer reduced to a less controlling position as seen previously, it is now seen as the defining aspect of the world. Let's examine this attitude to get a better idea of what it's all about, and how it might relate to this thesis project.

To start, one needs to consider for a moment that to understand how the world is changing is essentially to change the world. Posthumanism proposes that there is no compelling reason to accept things as they are. It simply doesn't leave room for change or improvement. For example, there is no reason why we should have to accept 20/20 vision as the final goal of all corrections of vision. Why not expand vision further, and into other parts of the spectrum, such as the infrared? This theory can be applied to many other aspects of human existence such as hearing, physical strength, speed, and intelligence. In essence, this very human desire to improve is a pillar for posthumanism. Another base is human diversity in its broadest possible sense. This includes the diversity of goals and means of reaching them. This form of diversity is largely responsible for our complex social and economic systems. It merely implies that while we come from common origins we will move on differing paths, toward differing goals. However, it also suggests that this diversity does not rule out cooperation between the different. Our current societies are proof that many different individuals, with differing languages, cultures, ideologies, religions, temperaments, and backgrounds, can get along and cooperate. The third base of posthumanism is techno-transcendence. This simply means using technology to overcome our limits, to transcend. As it stands now human knowledge, creativity and intelligence are ultimately limited. This idea blends very well with the first two attitudes covered because any amount of change, even if tiny, will add up after awhile.

Posthumanism' deals with the idea of possibility without limitations. Take for instance, the possibility that the brain could be wired directly into a computer. 'The computers could be small enough to be contained inside the body. By far, the most ambitious method is 'migration through silicon' or 'uploading.' This involves putting the mind into a machine, the machine being a computer designed for this purpose. This idea has potential, but it's still too early to estimate its feasibility.'¹⁷ Many people might reject this idea saying that it is unnatural, Frankenstein-like, or that technology and science have already gone far enough and done enough harm. Others might view ideas such as this inhuman, premature, or as science fantasy with little relevance or substance. Still others believe that this is all inevitable and wonder why anyone would spend anytime discussing the inexorable.

Many people these days take 'unnatural' to be a serious condemnation. 'Unnatural' and 'natural,' just like beauty, is in the eye of the beholder. 'Unnatural' is often used as a synonym for 'unusual,' 'abnormal,' or typically, 'unfashionable.' Would anyone deny the naturalness of earthquakes, floods, and tornadoes? Yet, most people consider these things to be abnormal or at least rare. Would anyone deny the naturalness of trying to avoid these?¹⁸ For the unconvinced, what could be more natural than a living being using its full potential? If this is 'natural,' then posthumanism to is natural because it is nothing more than pushing everything desirable in humans to the fullest possible usage. Technology, too, is a natural thing. Our technology is almost a part of us. Are we not also natural? If we are, then how could the things we make be any less natural?

Inevitability is a difficult subject to broach. Inevitably, posthumanism will expand upon those things that humanity prides itself on, such as intelligence, courage, curiosity, and inventiveness. It's very hard to say what the future will be like, but by observing the trends we can get an inkling of where things might be heading and how fast they'll get there. There are implications that do come with new technology. New technology could wind up in the hands of vicious people. New ideas and technology are nearly impossible to stamp out. However the technology is already here and a person could spend their entire life asking what if. I think that the underlying idea is that we need to move forward, critically with open eyes. The first step is to try and understand technology as best you can. Also, others will be out there using new technology and ideas for their advantage. If you don't, they will.

...what is futurism

Futurism was first announced on Feb. 20, 1909, when the Paris newspaper *Le Figaro* published a manifesto by the Italian poet and editor Filippo Tommaso Marinetti. The name Futurism, coined by Marinetti, reflected his emphasis on discarding what he conceived to be the static and irrelevant art of the past and celebrating change, originality, and innovation in culture and society. Marinetti's manifesto glorified the new technology of the automobile and the beauty of its speed, power, and movement.²⁰

In many ways, Futurism was neither a movement nor particularly artistic; it was, rather, an exercise in propaganda intent upon redefining the human psyche for a modern, technological world. I would argue that it is only in our present, digital age, that Futurism's legacy can be fully understood, for it is here that fascism's technological shaping of bodies and ideologies is most apparent. As Arthur Kroker and Michael Weinstein would remark some 85 years after Marinetti's first manifesto, 'Humanity, and all of its formation have crashed; anti-humanism is a *fact*, a condition, not a position. Something better than the flesh has seduced and intimidated it, the technological imaginary –virtual reality'²¹ Futurism is the ability to extrapolate today's trends and forces and see their implications for tomorrow. It does not necessarily anticipate the innovations that may change the world or speculate about their invention, but relies more on the futurist's idea of 'natural' extension from the present.

According to the American Heritage dictionary; *Futurism*: a belief that the meaning of life and one's personal fulfillment lie in the future. *Futuristic*: of or relating to the future; characterized by, or expressing a vision of the future; being ahead of the times; innovative or revolutionary. Futurism has value because it broadens the way creators, designers, and developers think about the environment or context in which society inhabits. This is real value. The focus of futurism for a developer or designer is to provide that one perfect question or quest that can drive the process of innovation.

Futurism is more than just peering into or predicting the future. It's a philosophical perspective that believes behind every social problem, there's a golden opportunity, that we create our own future, and that anything can be done. That through technology the door to possibility is opened. It's not just about technology or techno-optimism. Futurists believe that technology itself is amoral, and can be used for good or bad. Futurism is about 'smart' or 'intelligent' use of technology to maintain that balance of trade-offs. Most of all, it's about the value choices we make as a society and values we demand of our leaders.

Marinetti's writings resound with images of new bodies, fusions of the biological and the mechanical, projected images of life without 'humanity,' all attempting to comprehend and capitalize upon the rapid changes brought about by modern industrial life. As Stephen Kern notes, 'the new technology provided a source of power over the environment and suggested ways to control the future. The Futurists identified their movement with the promise of that technology and the new world that it offered.'²³ Technology, as Marinetti understood it, would remake the human body as it remakes the Earth. 'The energy of distant winds,' he writes, 'the rebellion of the sea, transformed by man's genius into many millions of Kilowatts, will penetrate every muscle, artery, and nerve of the peninsula, needing no wires, controlled from keyboards with a fertilizing abundance that throbs beneath the fingers of the engineers.'²³

The power and mastery promised by science and technology necessitates a transformation of human physiology and perception. As John Hanson remarks, 'The Futurist ... dreamed of reaching that absolute point of alchemical intensity where motion and space would become one, the man merging with the tram, the onlooker with the city.'²³ Futurism's identification with noise and speed, by replacing female love and beauty as the central determiners of meaning and truth, did not so much challenge the existing social order as it recognized its irrelevance in a mechanic world.

While 'library' may still remain very much based on a valid typology, a facility for the storage of physical information, is no longer sufficient to deal with the special needs brought to light by the questioning of modern-day communication. If we are to question the role of architecture, these new needs present specific problems never before encountered. I am proposing an exploration of a new typology; a typology for the modern day communication of information. One that promises the opportunity to dwell, engage, think, and communicate. The architectural precedence for this exploration will be called Ruminaton on a Posthumanist Forum, creating a new forum for the 21st century. Thus far, I have prompted a lot of tough questions and I have explored various ideas to get to the heart of this architectural investigation. I have explored several fundamental questions regarding architecture and theory:

The Question Concerning Technology:

This research uncovered Heidegger's position on technology. His main point which is not that technology is bad but rather that we need to keep a close eye on technology. It can be used effectively, in a positive way. Throughout history, architects have seen the importance of technology but have struggled to grasp its potential.

Dwelling:

Dwelling in its external sense is the purpose of architecture. Man dwells when he experiences the environment which he inhabits as meaningful. Therefore, dwelling implies something more meaningful than 'shelter.' It implies that the spaces where life occurs are in-fact places, and a place is a space which has a distinct character. This new typology will seek to define the nature of dwelling given the unique challenges of modern-day technology, communication, space, and place.

The Existential Meaning of Architecture:

A human being lives in the structures imposed by the architect, thus an architect is the primary caretaker of human life. The architect's duty is connected with the harmonious results of the architect's activities and to how it responds to the existential needs of the individual.

Space and Social Interaction:

How can we, as architects, begin to design and define 'space,' especially when the confines of space are changing so rapidly. Design is not merely a process, but a co-evolution of efforts and events in various places and times. The new typology that I am proposing seeks to provide instantaneous communication, not bound by physical location. Therefore it will open up new ways of operating and sharing knowledge within the public realm, and will encourage social interaction on another level.

The Transfer of Intention:

The underlying idea is to create strong architecture that is informed by the transference from architectural theory to practice. With the incorporation of technology into our designs it is possible for architects to transcend the human plane and evoke a transformation into the realm of 'virtual space.'

Cyberspace:

Technology has opened up the realm of cyberspace, and the human body no longer requires a physical space to communicate. We can now communicate indirectly via a whole new realm. Today, cyberspace has the ability to create an environment for dwellers to inhabit. How does cyberspace fit into the perimeters of typology? Are the boundaries of cyberspace a valid typology? Does cyberspace collocate to real space? What is real? Whose to say was is real? Every dweller views and perceives the world differently. As architects whose perception are we supposed to design for? But how do we begin to approach these questions? How do we begin to determine whoses oerception we are supposed to design for?

On Typology:

Moneo tells us that typologies grow out of solutions that are a response to specific spatial needs. But Heidegger tells us that we build because we are dwellers, because building is an integral part of our human being on the earth. If we are to accept Heidegger position then we need to look beyond typologies that are generally understood within the bounds of historical precedence and formalized classifications, because they fail to seek meaning, and embrace the technological advancements of our changing cultural and social conditions.

Post Humanism:

Posthumanism proposes that there is no compelling reason to accept things as they are. That in itself is the fundamental idea for this thesis project. By accepting only the historical based typologies, it simply doesn't leave room for change or improvement. There is some merit concerning a Posthumanism approach to deign. It lays in the idea that we can utilize technology to overcome our limits, and therefore transcend into the virtual realm. And through cyberspace we can begin to explore the idea of possibility without the limitations of physical space. We need to design for the future, and if we don't someone else will.

Futurism:

Futurism can be construed as both an art and a science. The art, and the real genius, is in integrating the two dimensions to envision how new technology will be able to resolve the conflicts people feel in satisfying their basic human needs. Essentially, Futurists set out to reclaim the past by defining the present and the future. In so doing, they attempted to destroy the attitudes and mores that Marinetti associated with a pre- 'Machine Age' world. Consequently, Futurism's attacks centered upon political, ideological, and aesthetic institutions, from 'museums, libraries, and academies of every kind.'²⁴ A futurist approach does provide in important anchor for the new typology which I am proposing. First, and foremost, this new typology seeks to satisfy the dwellers basic human needs. Likewise, I would argue that 'library,' as an institution, is no longer prevalent. This 'old world' building typology is out of touch with the modernity that has redefined and re-imagined not only the physical world but also the social body, language, human physiology, and perception.

Before we begin to define this new typology I think it is important to define or iron out a few concepts (for the purpose of this paper):

technological thinking...

Technological Thinking is a fundamental understanding that the integration of technology, and resources into society has been accompanied by an interest in the power of technology to affect changes in social, civic, and economic functioning. It is also the understanding of the potential of technology to make our lives more enjoyable, more efficient, and more productive. Technology is merely a 'means to an end' and necessitates a broader understanding of its role on society as a whole. Technology is a dynamic resource and tool that continues to develop over time, and subsequently has acquired an increasingly prominent role in society. Today, we have become a generation that is immersed in computer technology for recreational purposes and more reliant on this global medium for information and social interaction. Technology has facilitated accessibility to vast resources. Yet the promise of technology has not only been the ability to access information but also the opportunity to 'command the inherited knowledge of the ages.'²⁵ It is the connections between remote pieces of information that can amplify patterns of thinking that were previously overlooked. This amplification is intensified through dissemination of acquired insights to others across remote distances. As archives of past knowledge expand, the focus turns to the creation of new associations and interpretations that may further enhance our understanding and contribute to the richness of the field of architecture. This process necessitates recognition that we only identify a sampling of the nearly infinite hypotheses possible through alternative combinations of knowledge. However, in an 'environment that is replete with an endless assortment of content, it is critical to evolve a discerning ability to grasp the complexity of information and justify the rationale for the way we structure and analyze data and synthesize its meaning.'²⁵ Technological thinking is essentially freeing your mind, to become open to the possibilities of a technological age and all that, that implies.

the difference between information & knowledge...

According to the Oxford English Dictionary, the earliest historical meaning of the word information in English was the act of informing, or giving form or shape to the mind, as in education, instruction, or training. The English word was apparently derived by adding the common 'noun of action' ending '-ation' (descended through French from Latin '-tio') to the earlier verb to inform, in the sense of to give form to the mind, to discipline, instruct, to teach. Inform itself comes (via French) from the Latin verb informare, to give form to, to form an idea of. Furthermore, Latin itself already even contained the word informatio meaning concept or idea, but the extent to which this may have influenced the development of the word information in English is unclear. It can be interpreted to have several meanings:

- Information is a word which has many different meanings in everyday usage and in specialized contexts, but as a rule, the concept is closely related to others such as data, knowledge, meaning, communication, and representation.
- Information is essentially a message, something to be communicated from the sender to the receiver. If information is viewed merely as a message, it does not have to be accurate. It may be a true or false. This model assumes a sender and a receiver, and does not attach

any significance to the idea that information is something that can be extracted from an environment, e.g., through observation or measurement. Information in this sense is simply any message the sender chooses to create.

- Information is any type of pattern that influences the formation or transformation of other patterns. In this sense, there is no need for a conscious mind to perceive, much less appreciate, the pattern.

While knowledge is a central part of daily life, the actual definition of knowledge is of great interest to philosophers, social scientists, and historians. Knowledge, according to most thinkers, must follow three defining criteria. It must be justified, true, and believed. Meeting these qualifications may be difficult or impossible. It is also common to weigh knowledge in how it can be applied or used. In this sense, knowledge consists of information augmented by intentionality (or direction). Aspects of knowledge exhibit a social character. For instance, knowledge is a form of social capital. Sociology of knowledge examines the way in which society and knowledge interact. Like information, knowledge can also be interpreted to have several meanings:

- Knowledge is the confident understanding of a subject, potentially with the ability to use it for a specific purpose. The ability to know something is a central (and controversial) part of philosophy and has its own branch, epistemology. On a more practical level, knowledge is commonly shared by groups of people and in this context it can be manipulated and managed in various ways.
- Knowledge is ‘information combined with experience, context, interpretation, and reflection. It is a high-value form of information that is ready to apply to decisions and actions.’
- Knowledge is gained through experience, observation, and inference, individuals and cultures. The spread of this knowledge is examined by diffusion. Diffusion of innovations theory explores the factors that lead people to become aware, try, and adopt new ideas and practices -- this can help to explain development of knowledge.

Therefore, it is reasonable to deduce that: knowledge is a human process, an interpretive act that comes through experience. Whereas information is the act of communicating, that comes through the form of a message from a sender to a receiver.

What is the nature of this new forum? This building typology seeks to respond to the changing physical nature of information and the manner in which that information is communicated. At the same time, this new typology seeks to guarantee those democratic philosophies that were in the original impetus for the public library, and ensure that we maintain the ‘touch’ with our human-being need to dwell. The typology must also take care to place its inhibitors within a proper relationship to the special conditions introduced by technology. The exchange will no longer be able to rely upon the surrogate system of order provided by the storage of physical information. Therefore the structure relationships of this new facility must be explored and considered.

This new typology has the capacity to engage us in the act of communication. Technology has the capacity to reduce the physicality of our messages and even the physicality of the body, but this typology remains the physical foundation, the tie that anchors the dweller of information to the earth, while allowing the consciousness to expand into the realm of cyberspace to communicate in the exchange of information. Our existence in an information culture will depend on our ability to communicate. This new typology, just like the modern day library, guarantees the dweller the right and privilege to communicate with fellow dwellers. Without access, we become hermits, powerless to communicate, think, and decide. I feel it is also critical to understand that dwelling also deals with the cultivation of growing things through the act of sparing and preserving. And that is the essence of the building typology that I am proposing.

Through the examination of the works of both Heidegger and Merleau-Ponty a typology can be based on the primacy of a human beings needs, not only from the precedence of the past. As human beings we often find ourselves 'enframed' within the vicious cycle of modern technology, part of what Heidegger refers to as the challenges of technology. It is important that we realize that we need not be caught up in this cycle, but we can employ technology toward our own ends. Heidegger calls us to realize the true nature of technology in the same way that he has called to realize the nature our being.

Technology is therefore no mere means. Technology is a way of revealing. Techne belongs to bringing forth, to poises; it is something poetic... Essential reflection upon technology and decisive confrontations with it must happen in a realm this in on the one hand, akin to the essence of technology and, on the other, fundamentally different from it. ⁴

With regard to space and technology, it is unlikely that Heidegger was aware of the direct confrontations his position would have to make given present-day challenges of a culture caught in the web of technology teetering on the verge of the ability to leave the physical reality and the body behind in the realm of cyberspace. Just as we, as dwellers, are called to cultivate the understanding of our being through thought about building and dwelling, so to it is necessary that we think about the very nature of technology. In order for this new building typology to be successful it needs to explore the boundaries of: Conceptual verse Contextual, and Body verse Perception. Basically, the design has to explore the continuum between the conceptual and perceptual aspects of being.

How can virtual space be integrated within the actual 'building' space that houses us?

The underlying concept for this new typology will center on the idea of 'space without barriers.' This is a first step on the way to this immaterial and evanescent architecture that leaves plenty of room for the ephemeral. By creating a 'space without barriers' the dweller is able to feel free and open as they do in the park. Therefore, allowing the dweller to inhabit and experience 'space' filled with unexpected new discoveries. It is a metaphor in 'real space' which parallels the realm of information space. Therefore this forum can become the experimental place for the dweller to learn how to use and share both virtual and physical space.

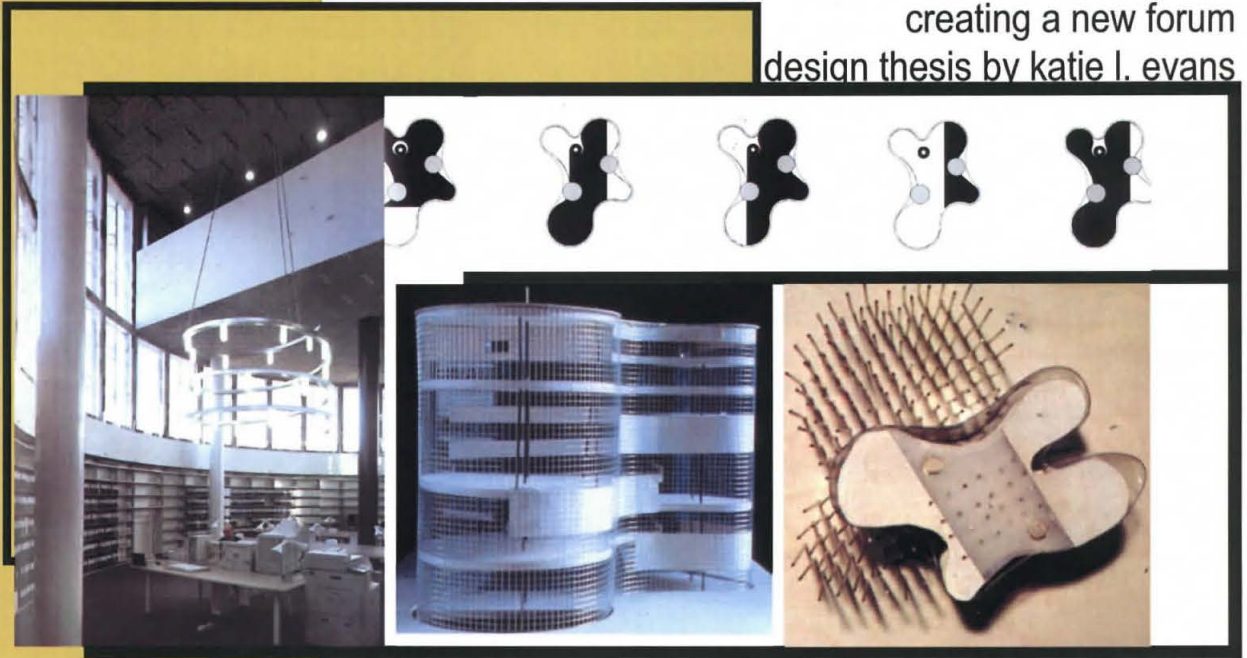
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rumination on a post humanist forum

creating a new forum
design thesis by katie l. evans



Case Study

IKMZ BTU in Cottbus, Germany
Designed by: Herzog & Meuron





Project Title: IKMZ BTU Cottbus
 Information, Communication
 and Media Center Brandenburg
 Technical University
 Location: Cottbus, Germany
 Client: Liegenschafts- und Bauamt Cottbus
 User: Brandenburg Technical University
 Cottbus
 Architect: Herzog & Meuron
 Completion: 1994
 Gross Floor Area: 58,343 m³
 Total BGF: 12,667 m²
 Building Footprint: 1,513 m²
 Cost: 41.6 million DM.



Distinguishing Characteristics:

Reading places: 460 (88 at the balustrade)
 Group working spaces: 60 (level -1, level 6)
 Catalog consultation points: 62 (all levels)
 Carrels: 15 (level 6)
 Café: EG, separate entrance, retail external

Opening Hours:

Monday-Friday: 9:00am-10:00pm
 Saturday: 9:00am-1:00pm

Collections:

The stock of the University Library of Cottbus includes 749.000 media items, among them: 510.240 monographs and journals (volumes), 83.360 standards, 164.630 microfiches, 34.100 maps, CDs, videos, other media. Additionally they have: Periodicals, Newspapers, and Electronic Journals & Databases.



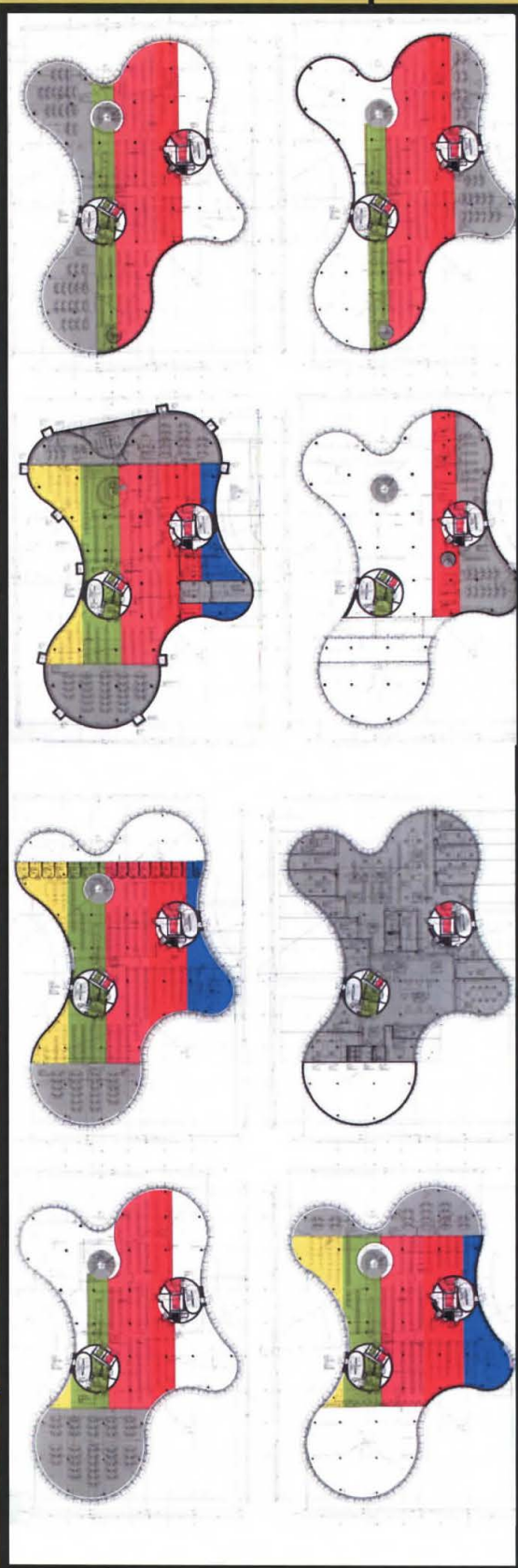
Users:

Students:

About 4,500 students are currently enrolled at BTU. Among these are approximately 950 international students from 78 countries; these students make up more than 20 percent of the student body. The largest groups of international students come from China (344), Poland (92), Cameroon (57), Ukraine (35), Bulgaria (24), Spain (21) and Russia (18). (As a comparison, international students make up on average between 6 and 7% of the student body in German universities, a number that includes foreign nationals born in Germany.)

Personnel:

BTU employs 130 Professors and about 600 research assistants. Of these employees, 151 are financed through external funding. The total number of employees at BTU is approximately 1200. The annual budget is 95.7 million DM.



Existing Program Elements:

Architecture reading room: Books and current periodicals on architecture, city and regional planning, conservation of monuments and historic buildings

Copy machines: Coins and card copy machines

Information agency: Gives assistance in finding information to special questions, offers bibliographic investigations in over 500 databases around the world

Inter-library loan: Books and periodical articles, which are not in the library collection, may be obtained from other libraries

Internet workstations: Give free access to the Internet, only log in with user number and password, search in online databases and electronic journals world-wide

Media center: Video tapes and DVDs in classified order
Open access area: Books on open shelves in classified arrangement, lending and non-lending stock in one order

Periodicals library: Periodicals from previous years, only for in-house use

Periodicals reading room: Display of current journals shelved in subject order, additionally important German and international newspapers of the recent week, only for in-house use

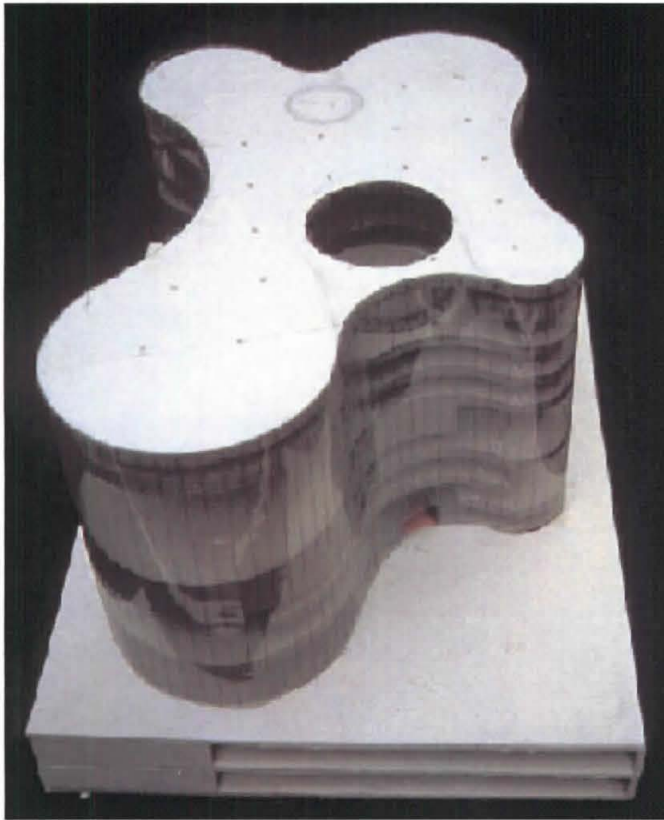
Reference staff: Gives information about shelving of the stock, lending conditions and use of OPAC and other databases

Reserve collections: Selected books for students for special seminars and lectures

Search center: PCs for enquiries in CD-ROM- and online databases, free of charge, registered users of the University library log in with user number and password

Stacks: Books are shelved in closed stacks and have to be ordered by OPAC, they are discernible by the status

Standard department: Non-circulating collection of German and International standards



A Brief On Herzog & Meuron:
One of the most compelling aspects of the work of Herzog and de Meuron is their capacity to astonish. They transform what might otherwise be an ordinary shape, condition or material into something extraordinary. Their relentless investigation into the nature of architecture results in works charged by memory and invention, reminding us of the familiarity of the new.

The originality of their constructions stems primarily from the intellectual rigor and sensual intuition that they bring to each work, an enthralling combination that can be discerned in the taut discipline of a wall and roof connection or in the layered transposition of one planar detail to another, to mention just two such conditions prevalent in their work. When experiencing Herzog and de Meuron's work one becomes aware of such conditions as natural extensions of the architects' lucid tenacity. One is also able to understand the architects' piercing reading of site by the way they disclose its hidden or obvious specificity, initially manifested through a detail, a material, a texture, a scent, or a wedge of light.

Jacques Herzog and Pierre de Meuron, childhood friends since the mid fifties, founded their partnership in 1978 in their native city of Basel. Since they began working together, a common interest has linked them as they sought the potential for beauty in the fusion of function and site. In examining the trajectory of their built and unbuilt work, one finds ample evidence of this fusion. Often the desire for functionality results in a bureaucratic and inert architecture. Yet in the hands of Herzog and de Meuron the pursuit of functionality leads to a dynamic prism, emitting unforeseen subtleties as they come in contact with a site and program.¹

Sources:

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Advanced Technology:

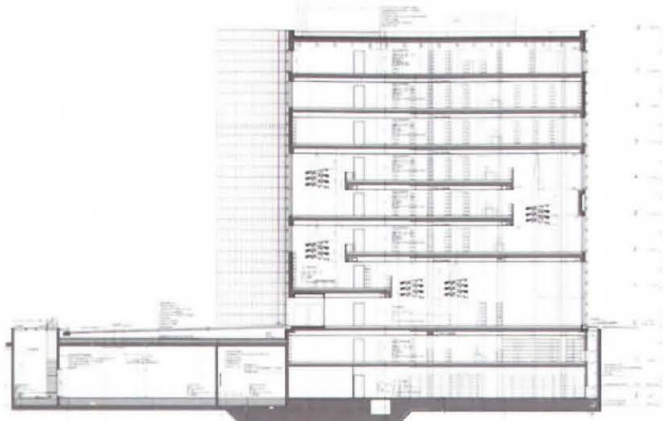
The building, with transparent shamrock-shaped exterior form, will provide the users with both traditional and multimedia ways of searching through its information repository. This futuristic, hi-tech library is protected by a HI-FOG sprinkler system. The large open spaces of the building's interior required an appropriate fire protection system. A high-pressure water mist system was specified for the building because of its advantages over traditional systems. The key decision factor was the minimizing of damage in the event of a fire. The building is also equipped with smoke exhaust and fire detection systems. The whole building is now protected by a HI-FOG sprinkler system. Most of the sprinkler heads are of the pendent type, although sidewall sprinkler heads have been installed in the atrium areas. The building is divided into 23 sections and has nearly 3000 sprinkler heads installed. The HI-FOG water mist system is powered by an electrical motor driven pump unit with built-in redundancy features. Characteristic for the building is its curved shape, thanks to which the building has no front or back as such. The steel construction is coated with two glass facades of a unique pattern. The interior is spacious, consisting of eight floors above ground and two below. The bookshelves are located in areas of normal ceiling height, whereas the atrium-like reading areas are partially open over three levels. The storage areas are located in the basement.



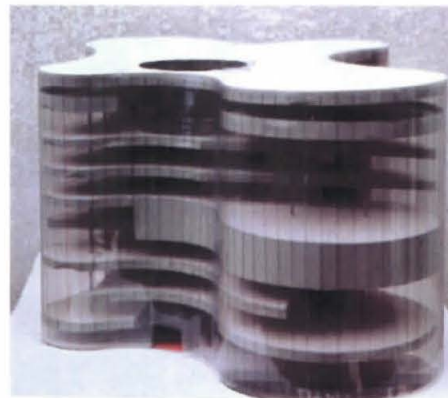
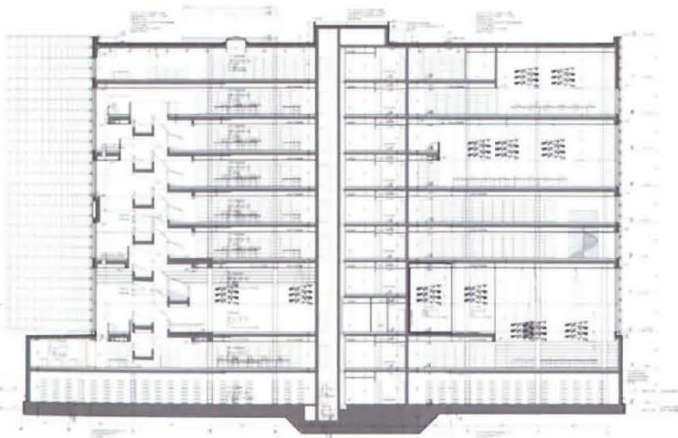
The atrium areas have been protected by a combination of both pendent and sidewall nozzles, insuring adequate window protection.

The sinuous, glazed form of the new library of the University of Technology in Cottbus contains a complex, single internal space that extends from the first basement level to the sixth floor. Housed in the rounded protrusions of various sizes are the neutrally colored reading areas, the character of which is largely determined by the ingress of daylight. The bookshelves are located in the lower-height, more colorful central zone. This layout ensures a good sense of orientation. The various stores are linked by two solid vertical cores, containing services, staircases and lifts. The energy concept for the heating and cooling takes account of vertical temperature layering, the drop in temperature next to the outer glazing, and the great depth of the internal spaces. Two combined heat-and-power units, a peak-load boiler, an absorption cooling plant, a heat pump and four areas with earth-bores and tubes achieve a balance between the concept of a regenerable energy supply and the need for an agreeable indoor climate. The

double-skin facade consists of a curtain wall of single glazing and an inner layer of double glazing. Sun shading is provided by fabric screens in the space between the facade skins and by screen-printed handwritten texts, the layers of which merge to form ornamental patterns. The changes of density in the printing correspond to the different g-values required of the facade, according to aspect.



Section scale 1:100 / 断面图 比例: 1:100



The library building - a construction of steel, glass and concrete - resembles a beacon calling the future. Strategically situated at the main entrance to the BTU campus, the new Information, Communication and Media Center, designed by architects Herzog & de Meuron, is indeed the embodiment of a very ambitious claim - to cater for an integrated information flow for the city of Cottbus. According to Herzog & de Meuron they came to the conclusion that the library required a 'different type of building: it would be a solitaire, a landmark within the surrounding urban architecture that would communicate the new spirit of the university and relate to the environs in many different ways.'¹ At first sight, the shape of the building appears to be purely accidental; it proves on closer inspection to be a purposeful configuration of many different flows of movement. According to Herzog & de Meuron they 'made models to work out the sequences of movement and to test their quality, specifically their ability to reorganize and restructure urban space.'¹ From a distance, it stands out from the otherwise rectilinear structures in the area by virtue of its curved façade. Viewed from the side facing the city, the building has the appearance of a slender, free-standing tower, an emblem of

the university complex, in a sense. On the side overlooking the campus, the full volume is revealed, evidently firmly rooted in the park. In fact, the building looks different from every avenue of approach and yet it remains a single continuous form, a flowing whole. Although it seems to be organic and explicitly self-referential, its design also derives from the express intention of lending the site a new and distinctive topographic quality within its urban context. A white veil is printed on both sides of the building's glazed shell.

Herzog & de Meuron understand that architecture embodies memory for society. A library, of all buildings, does this even more literally, and should function as a place for people to access this knowledge. This philosophy characterizes the interior of the building as well. Its shape allows the creation of reading rooms in many different sizes and oriented in all different directions but within the larger whole of the library as a single, connected interior space, a spatial continuum. Following an orthogonal layout, the stores are cut back so that each has a different shape, generating an appealing tension between the stores and the continuous shell of the building. 'Being able to leave out certain areas of the floor space on each level or in each part of the building gave us considerable freedom in designing the special sequences within the building.'¹



Inside, each of the building's seven floors are different, with each floor plate cut to create double- or triple-height spaces that face in all directions. The most spectacular of these is the triple-height space at the north of the building, which contains a spiral staircase in pink and magenta. This expansive spiral staircase, six meters in diameter, cuts through the entire structure and links all the stores. As a freestanding, sculptural object it provides orientation within the building. The stairs are so spacious that they not only ensure immediate access to all of the floors for people in a hurry but also offer room for others to stop and chat for a moment.

Color is a major navigation aid in the building, with broad stripes of lurid colors denoting information areas, book stacks and other zones. But the main points of navigation are the three cylinders that rise through the entire height of the building. The northernmost is the broad spiral staircase, the eastern is the service lift and the southern is the public lift and escape stair. The book stacks themselves are kept away from the facade in the darker recesses of the plan. The spiral theme is continued in the reading rooms through the huge chandeliers with tiny spiral light bulbs.

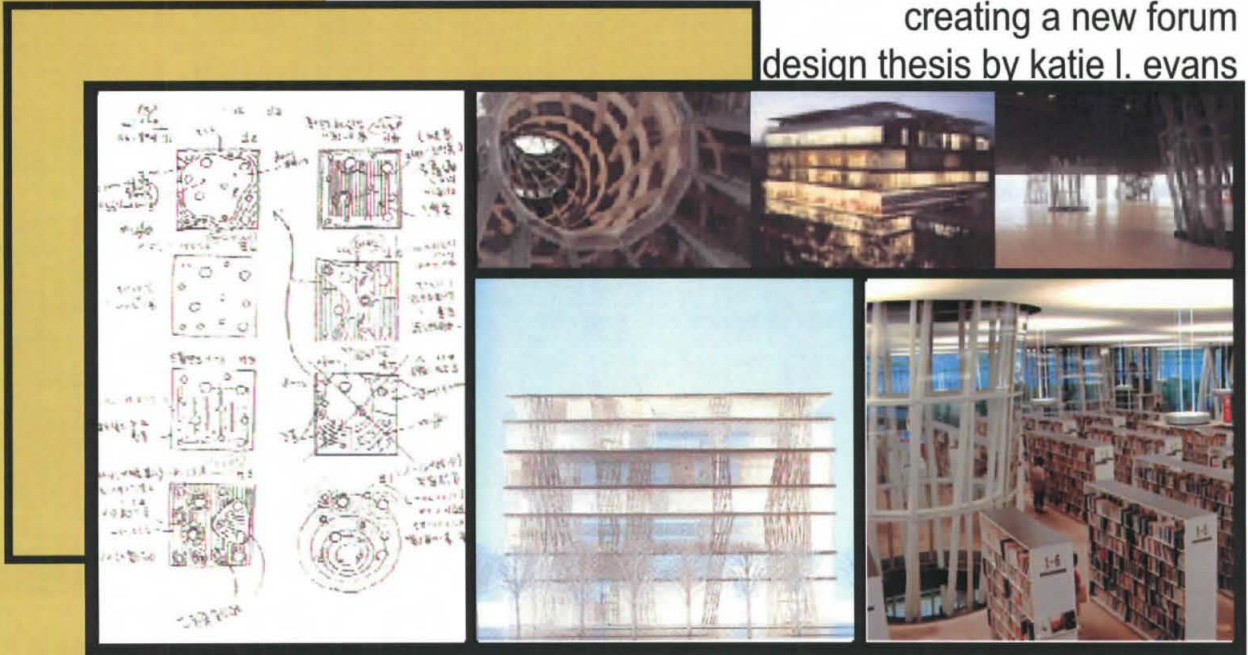
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rumination on a post humanist forum

creating a new forum

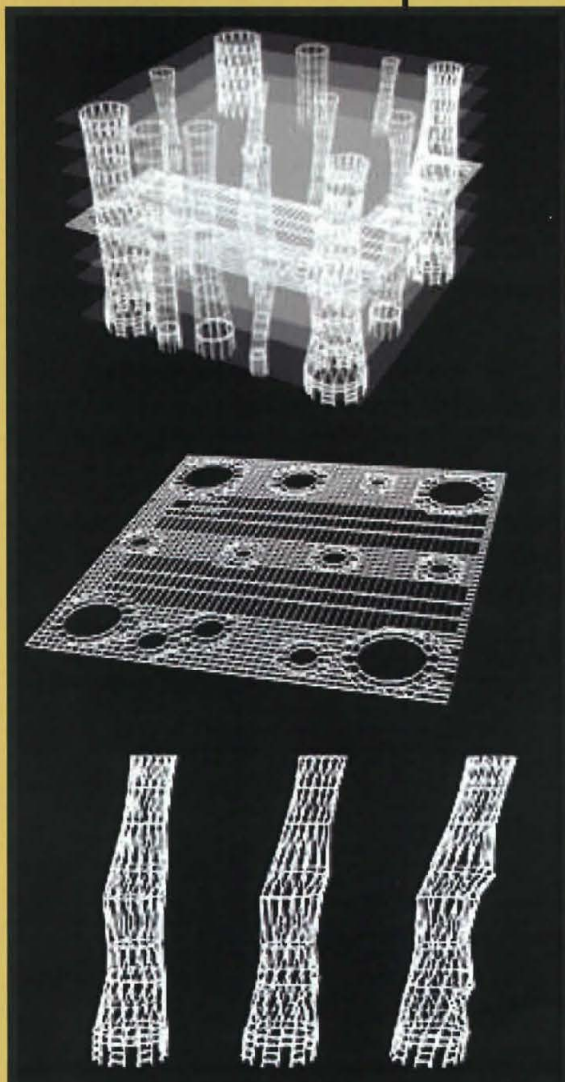
design thesis by katie l. evans



Case Study . . .

Sendia Mediatheque in Japan
Designed by: Toyo Ito





Project Title: Sendia Mediatheque (SMT)
 Location: Sendia, Japan
 Architect: Toyo Ito
 Completion: 2001
 Site Area: 3,948.72m
 Building Area: 2,933.12m
 Total Floor Area: 21,682.15m
 Max Height: 36.49m
 Structure: steel-ribbed with partial reinforced concrete (rc) construction
 Cost: approx 13 billion yen

Concept

SMT's flexibly serves the needs of people by supplying the latest knowledge and culture.

SMT maximizes networking potentials not through terminals but nodes.

SMT serves all people including the disabled, users, providers, and people of different languages and cultures, through freeing them of all barriers.

Programs/Distinguishing Characteristics:

Exhibitions, film screenings and workshops related to art, films, and media are arranged.

Educational promotion and voluntary activities are supported so that all people including the disabled can use media freely.

Cooperation with many people to collect information and store digital records in archives is encouraged.

Collaboration with outside libraries and various organizations is developed.

Opening Hours:

Tuesday-Friday: 9:00am-10:00pm

Saturday-Sunday: 10:00am-8:00pm

(closed Dec.29-Jan.3 and 4th Thursday every month)

Users:

Since opening in January 2001, three or four thousand users come to smt every day. Some are reading, some are taking part in letterpress printing workshop, some are preparing their exhibition, some are watching a movie in the theater, and some are browsing the internet. SMT provides a base for activities related to art and films, as well as, public facilities that help people communicate with each other freely and smoothly through various media. In order to achieve this purpose, SMT has prepared the following programs, developed from its concept.

Brief Project History:

Planning for the “sendai mediatheque” began in 1994. At the beginning, plans called for a multifunctional facility comprised of a library, gallery, and a visual media center that also contained services to aid the sight-and hearing-impaired. Subsequently, plans changed so that instead of simply being a “mixed-use” facility, it was intended to encompass a larger sphere of functions that would allow the facility to operate as a unified “mediatheque” with common goals to respond to a continuously changing information environment and users’ diverse needs. The organizers wanted a proposal that was not bound by convention.

The sendai mediatheque gathers, preserves, exhibits, and presents various forms of media without being bound to form or type. This public facility for the 21st century, through its various functions and services, is able to support the cultural and educational activities of its various users. The Sendia Mediatheque is a center for activities in the fields of art and film, serving as a public facility to help people freely exchange information with each other through various media and it assists them with learning how to use that information.

Originally inspired by the image of floating seaweed, Toyo Ito’s multi-purpose cultural centre, the Sendia Mediatheque, is a structure both transparent and light. Thirteen steel tubular lattice structures penetrate the design and carry the weight of the 15.75 inch thin floor slabs on each of seven floors, giving the building the impression of being suspended in mid-air. Light is central to the Mediatheque’s appearance: when not flooded by daylight, the structure glows artificially from within.

Existing Program Elements:

Size: 2 floors below ground + 7 floors above ground + rooftop

Ground floor: Reception, cafe, shop

1st floor: children’s library, periodicals, Internet, administration.

2nd and 3rd floors: Reference library, lending library, reading room.

4th floor: Exhibition gallery for the citizens of Sendai, currently displaying the first hundred years of the school for young ladies.

5th floor: Exhibition gallery displaying plastic arts from Miyagi province.

6th floor: Cinema, meeting rooms, administration, viewing and lending library of cassettes and DVDs.

Information system:

wide area network: up 30Mbps / down 5Mbps with “Service Level Agreement”

local area network: floor-to-floor 1Gbps / same floor 100M/1Gbps / backbone 30Gbps

total information connection port: 500 ports (RJ-45 Cat5e)

special function: multicasting movie transmission (only internal network)

server : 8 dmz (linux), 20 inside (windows, linux and macintosh)

clients : 260 clients (windows, macintosh and linux)

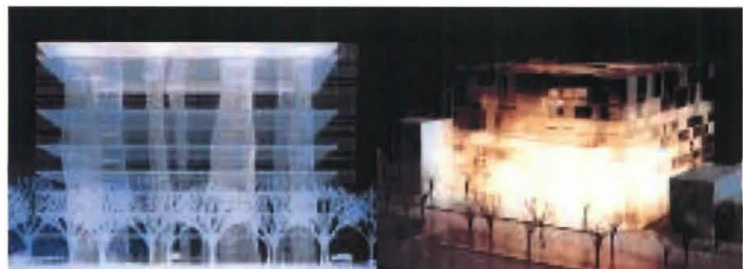
network : external router, fire wall, 29 edge switch, 5 wireless access-point

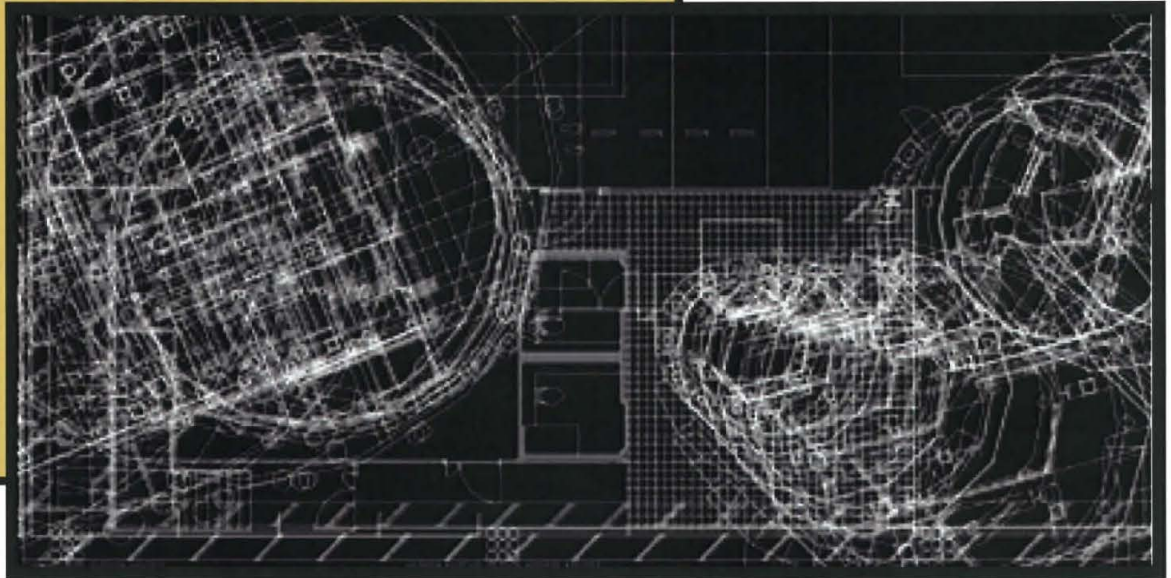
running cost: 126 million yen for lease per year, 34 million yen for out-sourcing per year

administration member: 4 persons with shift time and 1 person with 2 days per week

case study...

sendia mediatheque, japan





ARCHITECT'S STATEMENT

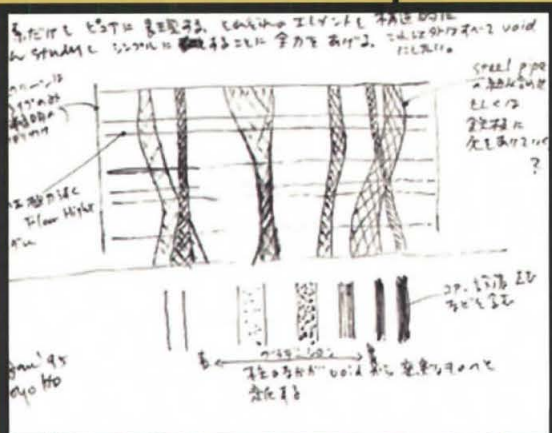
by *Toyo Ito*

Two operations are proceeding simultaneously at opposite extremes: one on the construction site, the other on the computer screen. The site is filled with steel; countless slabs and pipes are suddenly introduced into the middle of the urban space. Gradually they are being assembled to become one massive steel sculpture. The sound of dozens of welders echoes from morning until night as sparks fly from their torches, and the steel dust dyes the air like smoke belched from a chimney. This work seems too primitive for a construction site in the computer age; bringing things into evidence seems like a violent act.

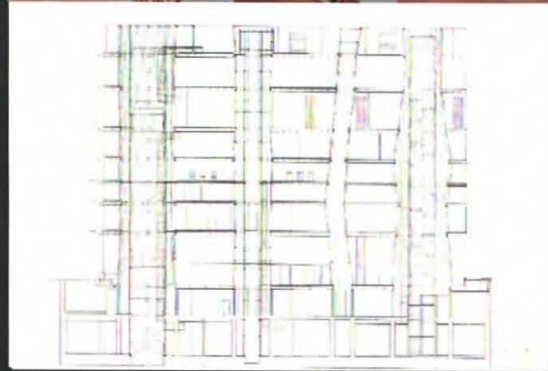
Meanwhile, innumerable drawings flow across an enormous screen: ground plans, side plans, cross-sections, exploded views, facilities plans, details; plans abandoned when designs changed, plans being studied; a panoply of two-dimensional architectural signs. Superimposed, they appear and vanish by turns, flowing ceaselessly. They seem to follow the trail of the designing process. This space has nothing to do with things, being constituted only by the manipulation of signs folding over and into each other without end. Blurring Architecture is architecture that unsettles. By pursuing two kinds of architecture at once I am attempting to blur the field of architecture; in one instance by making things visible to the extreme, and in the other by purely specializing the flow of signs.¹

Source:

1. Andrew Barrie, Andrew. "Blurring Architecture." *Ach Space*. August 2001



The Sendia Mediatheque is composed of thirteen pillars which simulate great trees, with an architectural concept that asks to be regarded as a present-day version of the Sagrada Familia. These pillars not only hold up the building, they also contain the various service spaces such as stairs, lifts and service ducting. In addition, the upper part of each pillar serves to let in daylight and to draw in air for the air conditioning system; the lower part takes in water from underground streams, combining to give the space a high degree of comfort. This is an eco-tech architecture, designed to make efficient use of the energy present in the environment in order to achieve self-sufficiency in supplying the needs of a modern building. At the same time, the pillars also function like organic trees, inviting us to conceive of the whole as an “artificial forest.” The Sendia Mediatheque serves as a perfect example of a prototype for the architecture of the electronic age. The main entrance leads to a double height hall that consists of an information counter, an open square that supports film screenings and other events, a café and retail shop. Through the transparency of the facade and the continuation of the curtain wall to the ground this space reads as a continuation of the surrounding city. The interior of each level of the mediatheque is designed by a different designer. On the ground floor Kazuyo Sejima places the administrative offices behind a translucent screen. The second and third levels house the Shimin Library and include a browsing lounge with internet access with furniture designed by K.T Architecture. The fourth and fifth levels contain gallery space; one level an exhibition space with moveable walls and the other an exhibition space with mainly fixed walls with rest area seating by Karim Rashid. The sixth level houses the multimedia library dedicated to audio-visual with green and white furniture designed by Ross Lovegrove and a 180 seat cinema. The simplicity of elements, what the architect defines as plates (floors), tubes (columns) and skin (facade / exterior walls), allows for a complexity of activity and information systems. The diverse programming creates an intricate spatial rhythm which is defined by varying degrees of public spaces; communal spaces of activity and individual spaces of repose and solitude.



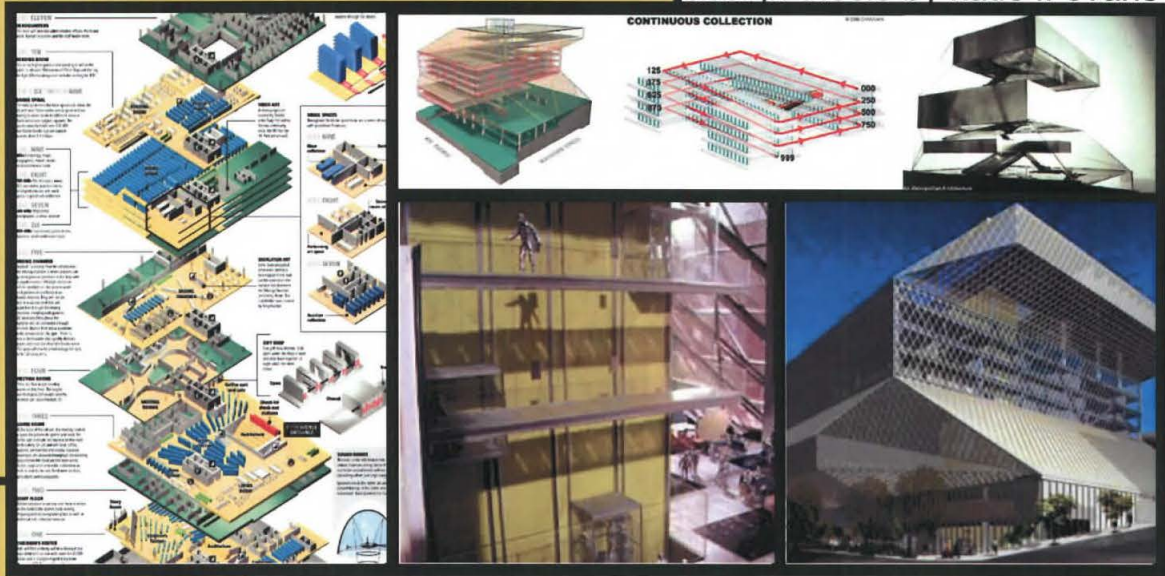
The overall design resorts to the very archetypal and substantive concept and means of expression rather than formal expression. It features three very simple elements of (1) plates, (2) tubes, and (3) skin.

1. The plates are square slabs that are laminated in seven tiers, each representing a different mode of communication between people and between people and things through different types of media. The height of each tier defined by the plates differs from one floor to another, but the plates are interchangeable.
2. The tubes are both structure and vector for light and all of the utilities, networks and systems that allow for technological communication and vertical mobility, including elevators and stairs. Each vertical shaft varies in diameter and is independent of the facade, allowing for a free form plan which varies from floor to floor.
3. The skin is an element separating the inside of the building from the outside, it particularly refers to the skin enclosing the mechanical space on the top floor and the double-skinned facade facing the main street.

A flat slab made of steel plates sandwiching honeycomb is used as a plate. Each tube is formed as an HP shell using a combination of slender thick-walled steel pipes and constitutes a shaft.

With this simple construction, the Mediatheque will be the archetype of an entirely new architecture. It will serve as a place where the two bodies of the contemporary human being inhabit, the body that contains the flow of electrons and the primitive body responsive to nature.

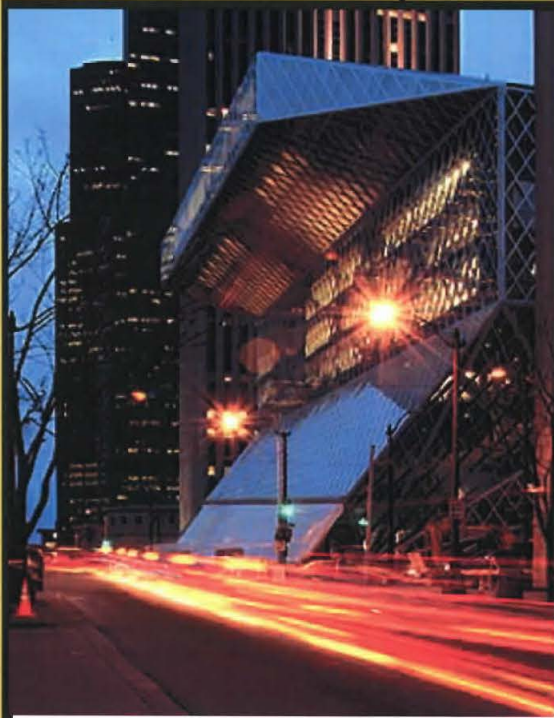
rumination on a post humanist forum
creating a new forum
design thesis by katie l. evans



Case Study ...

Central Library in Seattle
Designed by: Rem Koolhaas





Project Title: Central Library
Location: Seattle, Washington
Architect: Rem Koolhaas
Completion: 2003
Gross Floor Area: m³
Total Floor Area: 363,000 f²
Building Footprint: m²
Cost: \$165 million dollars

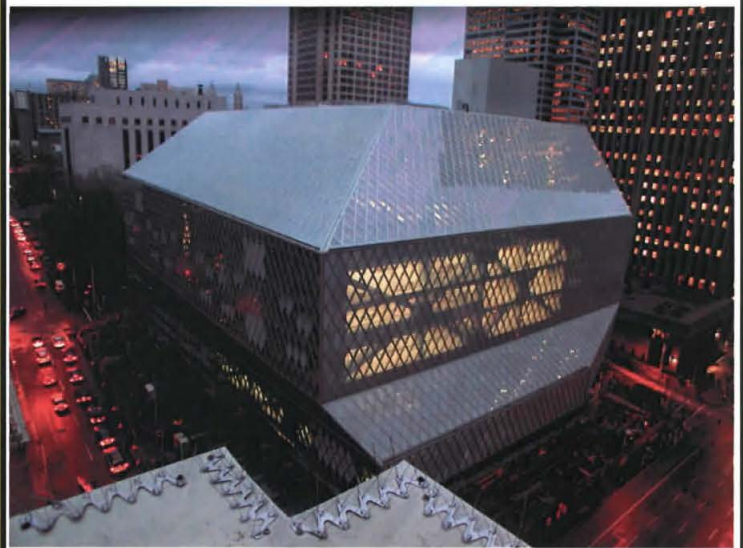


Distinguishing characteristics:

- Parking Garage (177 -spaces)
- Auditorium (275 -seats)
- Main Lobby (living room)
- Billboard
- Technology Training Rooms
- Multipurpose Meeting Spaces
- Trading Floor
- Library/Dewey Ramp
- Reading Rooms
- Administrative Offices

Opening Hours:

- Monday-Wednesday: 10 a.m.-8 p.m.
- Thursday-Saturday: 10 a.m.-6 p.m.
- Sunday: 1-5 p.m.



Collections:

The new structure has space for 1.4 million books -- a half-million more than its predecessor -- and is equipped with more than 400 computers. The new library will house the library's main collection of books, government publications, periodicals, audio visual materials and the technology to access and distribute information from the physical collection online.

Existing Program Elements

The building is divided into horizontal layers, each varying in size and shape. Each of these levels has its own function, including 'the Living Room' for browsing, featuring long couches and a coffee bar; 'the Reading Room' where most of the books are stored, a more traditional setting; and the 'Teen Center.' A 'Mixing Chamber' where patrons can seek help from librarians, has a reference center that includes 132 public computers, wireless hot spots for people to research on their own laptops, and a conference room. Children will have a 15,000-square-foot area for their books, six times larger than in the old library. There is also a 275-seat auditorium which can be expanded by 150 seats, connecting the two main entries, while a soaring atrium lobby extends along the southern half of the building.

Functionally, the building is articulated into a number of distinct compartments. By linking related points of emphasis to form thematic realms, five levels were created, each with a specific, programmatic core and a special ambience. These are distinct from each other not only in scale, but also in terms of the materials used and the lighting conditions. The five floating levels that can be distinguished in the 11 floors of the library follow a logical order: parking facilities in the basement, a bookshop on the ground floor, meeting spaces on the third level, and finally two levels for books and the administration. Inserted between these are public magnets or so-called attractors –which create programmatic links to work, communication and play and which, in their role as special units, complement the functional needs of the library.

The first attractor, situated between the parking level and the first administrated level, contains a children's library, a large hall for public elements, a multilingual collection of books and an informal encounter zone. Above this is the entrance hall, conceived as a public living room, which conveys a sense of privacy mingled with social activities. The electronically animated glass floor could be understood as an extension of the adjoining street space, although it also clashed with the seating groups that seem to float on the Persian rugs, which convey a sense of intimacy. Illuminated from below, the floor is reminiscent of a constantly changing advertising hoarding that announces the various events in the library. The next attractor, which is was planned as a heterogeneous level for encounter, combines areas for technical training along with discussion spaces. On an intermediate level on the fifth floor, there is a mixing space: a location of the exchange of information, where all reference works as well as library services are accommodated. In the overall design of the building, special importance is attached to the area for the librarian services, which is organized as a place of personalized communication, in contrast to the impersonal services of search machines. Immediately above the mixing space is a boulevard that winds continuously upwards, seamlessly linking the various collection of books and embodying the idea of strolling in the urban context. Via this spiraling ramp, visitors walk past almost the entire stoke of books. The ninth floor opens out to form a large reading room, in the traditional sense of the term, which is set beneath a glazed roof. Finally, there are two additional levels with offices laid out around an atrium.



A design such as the Seattle Public Library defies labels. The Library appears to be made up of unrelated, disharmonious abstract forms, having no visual logic. And yet the free-flowing arrangement of rooms is founded in logic and functionality. Is Koolhaas using technology to show us better ways to live?

He casts the library at the vortex of the two most dramatic changes in modern life over the past decade: the erosion of the public realm and the explosion of new technologies. Koolhaas believes libraries have unwisely positioned themselves as the last moral stronghold, essentially pitting books against computer chips. “The modern library, especially in a cyber-city such as Seattle, must transform itself into an information storehouse aggressively orchestrating the coexistence of all available technologies,” says Koolhaas. The design runs counter to the traditional notion of a library as a place devoted solely to books. Although the design includes book stacks, emphasis is placed on spacious community spaces and areas for media such as technology, photography and video. Koolhaas sees the new library as a custodian of the book, a showcase for new information, a place for thought, discussion and reflection - a dynamic presence. The fact that the contents of a whole library can be stored on a single chip, or the fact that a single library can now store the digital content of all libraries, together represent potential rethinking: new forms of storage enable the space dedicated to real books to be contained; new forms of reading enhance the aura of the real book. Our first operation has been the “combining” and consolidation of the apparently ungovernable proliferation of programs and media. By combining like with like, we have identified five platforms, each a programmatic cluster that is architecturally defined and equipped for maximum, dedicated performance. Because each platform is designed for a unique purpose, they are different in size, density, opacity.

The firm’s design solution proposed the construction of an “information warehouse” that could adjust to the future expansion of the book and other nonprint materials collection and that incorporated an indoor public space to reduce “the accelerated erosion of the public domain.”



Structure:

The floating effect outside has been achieved inside by leaving the platforms unsupported at the corners. The goal of the architects was to minimize the number of columns along the edges to make the platforms appear floating. With columns pulled back from the corners, the cantilevering provides structural efficiency, reducing load stresses along the middle of deep box trusses that run around the perimeter of each platform. To connect the library’s sloping walls to the platforms, the engineers developed sophisticated connections based on bridge expansion technology. While the connections permit vertical movement caused by constant changes in loading (people moving around), they prevent lateral movement caused by earthquakes.

AN ENGINEERING CHALLENGE

The building's vast open spaces and cantilevered platforms were made possible through the innovative use of vertical and sloped columns, trusses, and a steel diamond-shaped outer grid.

VERTICAL FORCES: GRAVITY AND WEIGHT

Because of its unconventional design and the "floating" nature of cantilevered floors, engineers minimized the use of true vertical columns (there are only 20 in the entire structure) and introduced a series of sloped columns on its perimeter to help support the building's weight.

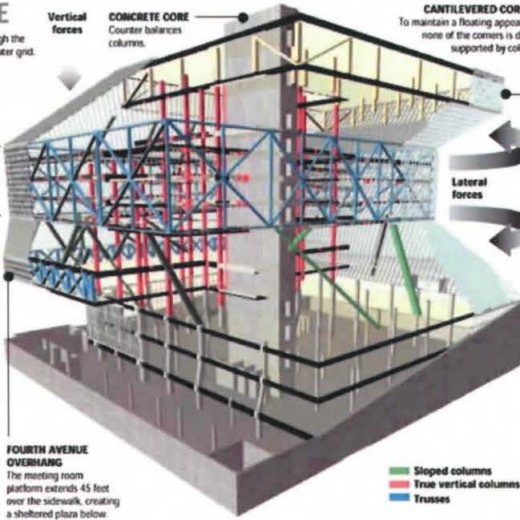
THE ANCHOR

The floors that make up the Books Spiral and Reading Room (floors 6-10) use sloped columns to support not only the weight of all that area, but they also support the floors directly above and below. The trusses directly support each of the floors within "The Anchor" and transfer its weight from sloping column to sloping column.

True vertical columns
These columns are typically spaced 30 to 36 feet apart in a grid determined by the column layout of the underground parking and extend the entire height of the building.

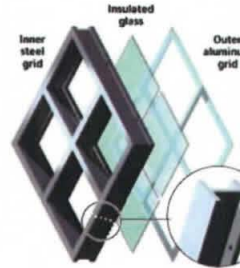


Sloped columns
These unconventional columns are angled to create open spaces while supporting platforms that are not in straight vertical alignment. They are as strong but typically longer and longer than true vertical columns.



LATERAL FORCES: WIND AND EARTHQUAKES

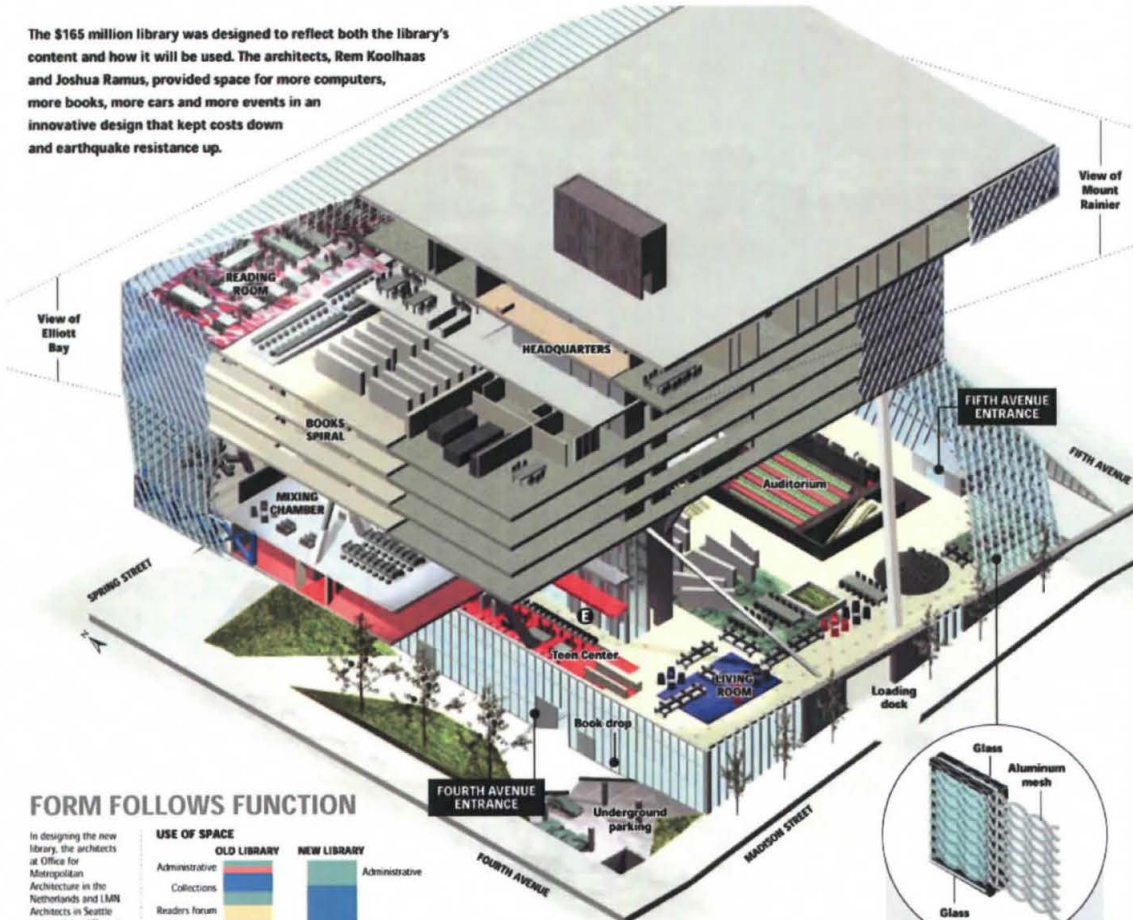
The diamond-shaped steel grid that encloses the building not only provides resistance to wind and earthquake forces but also helps hold the building's glass system, or curtain wall, in place. Conventional buildings require separate seismic and curtain wall support systems but in this case the steel grid serves both functions. The grids collect wind and earthquake forces and transfer them down to the next platform until they are absorbed by the concrete base.



CLEANING ALL THAT GLASS

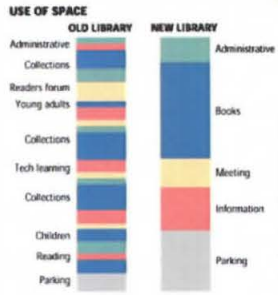
Taking into consideration Seattle's love of the outdoors and plethora of rock-climbers, the architect installed metal carabiner clips around the building's daring window washers to traverse the building.

The \$165 million library was designed to reflect both the library's content and how it will be used. The architects, Rem Koolhaas and Joshua Ramus, provided space for more computers, more books, more cars and more events in an innovative design that kept costs down and earthquake resistance up.

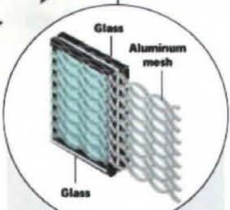
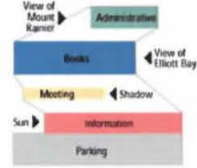


FORM FOLLOWS FUNCTION

In designing the new library, the architects at Office for Metropolitan Architecture in the Netherlands and LMNI Architects in Seattle assessed the different uses of library space and grouped similar functions together. Five major spaces emerged: Administrative, books, meeting space, information and parking. The architects allotted a certain amount of space for each category and created a series of boxes to represent each area.



THE SHAPE EMERGES
The architects moved the spaces around, staggering them to make the best use of light and dark spaces as well as views of the city. The top of each grouping, called a platform, was reserved as open, public space.



KEEPING OUT HEAT AND GLARE
With almost 10,000 panes of glass, the new library is not only transparent but energy efficient. To regulate heat and cut down on glare inside the building, a thin aluminum mesh was encased between two panes of glass in areas that get the most direct sunlight, such as the reading and living rooms. The sun's rays are collected as they hit the mesh, depending on the angle of the sun. To visitors inside the building, the mesh is barely visible.

case study... central library in seattle, washington

Buildings Skin:

The building appears transparent, clad in two layers of glass -- between which are steel tubes that join together to form a lattice of diamond shapes. The steel-tubed skin of the new library, Koolhaas said, "not only provides the main structural support for the building but also modulates light and, with built-in coolers and filters, controls internal air temperature." He noted the building is "pre-quake," with its irregular shape helping to counteract the movement of an earthquake. The library's appearance comes from pushing boxes around to stay within the height and setback restrictions and zoning codes. Enveloping the angular, faceted Seattle Public Library is a steel, glass, and aluminum diamond-shaped grid, which has an expanded aluminum mesh sandwiched between the glass panels. The mesh reduces heat and glare in areas catching more sunlight.

Koolhaas's Central Library offers a new view of the present role of the library as a public institution. The design effectively links the specific challenges faced in the city of Seattle with those with which cities in general see themselves confronted today. The library has suffered from the gradual erosion of public space caused by the growing dominance of private enterprise. Therefore, the position of the library as the last public institution in a largely commercialized urban landscape dominated by big concerns has to be carefully re-evaluated. The building is defined as a formal analogy to the neighboring context, and can be comprehended as a holistic environment, in the sense that the conventional programme of the library is articulated into a series of choreographed experiences. Conceptually located between the commercial network of international concerns and the public requirements of the city, the library becomes an urban hybrid that mediates between the two realities: the local context of the city and the displaced network of the international concerns. Since the library functions as both a public and a private undertaking, it is shaped by the needs of the local community and, at the same time, sponsored by international internet companies. He is able to formulate spaces for experience, while at the same time offering users a clear sense of orientation through spatial demarcation.

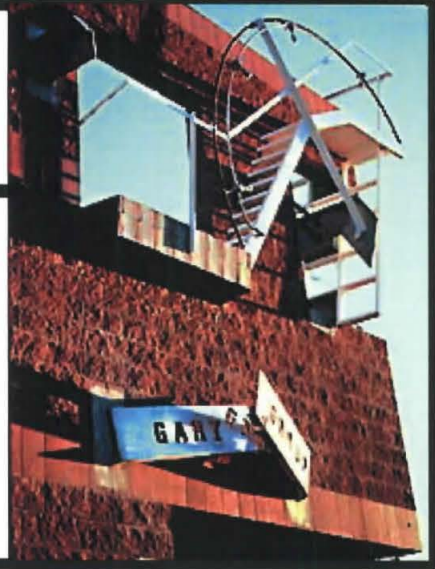
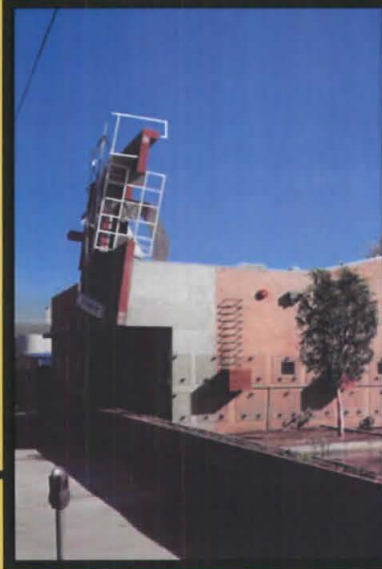
With an array of brilliant yellow escalators, colorful floor and wall treatments, waist-high signage, cavernous hallways, the library assist in providing a fun filled learning experience. Instead of being a boring book warehouse this library demands investigation. Circulation through the library includes a continuous square ramp winding upward through four levels of the entire non-fiction collection. Above the stacks on the tenth floor a reading room with slanted glass walls provides a unique perspective on the Seattle skyline.

The library sits on a steep urban site with a 29-foot (8.8-meter) height difference between its boundaries on Fourth and Fifth Avenues. At the corner of Fifth and Madison, the wedge-shaped base of the library diminishes nearly to a point. A further dramatic change of scale occurs at the Fifth Avenue entrance to the building. The visitor enters a vast 'Living Room,' a large unprogrammed space that offers its patrons an alternative to brand-name coffee shops as a place to relax, socialize, read, and connect wirelessly to the Internet. Straight ahead are the stacked and overlapping platforms that support the reading rooms and open areas equipped with computer work stations. Central to the building is a four-tier 'Books Spiral' housing the nonfiction collection. "This gently sloping pedestrian route, with stairs, ramps, and escalators, is sequenced according to the Dewey Decimal System. It has a capacity for 1.4 million books and other materials." Robert Such, Architecture Week No. 236

rumination on a post humanist forum

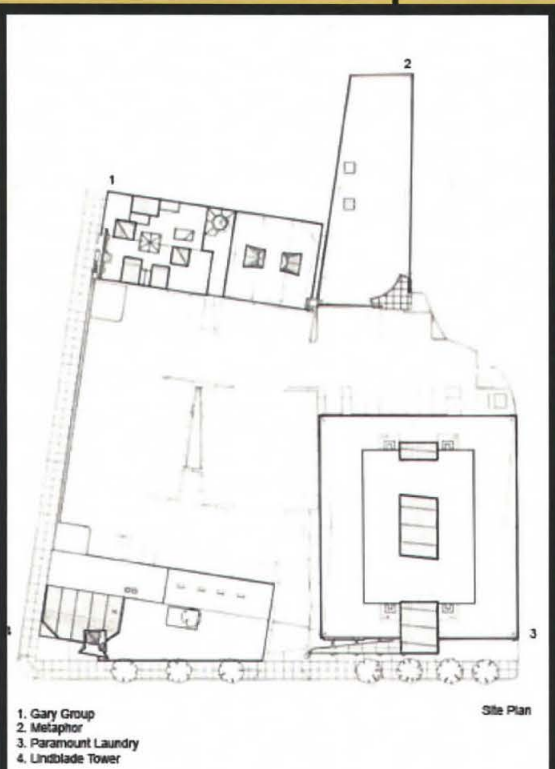
creating a new forum

design thesis by katie l. evans



Case Study

Gary Group in Culver City
Designed By: Eric Owen Moss



Project Title: Gary Group Complex
 Location: Culver City, CA
 Client: Gary Group
 Architect: Eric Owen Moss
 Completion: 1990
 Gross Floor Area: m³
 Total Floor Area: f²
 Building Footprint: m²



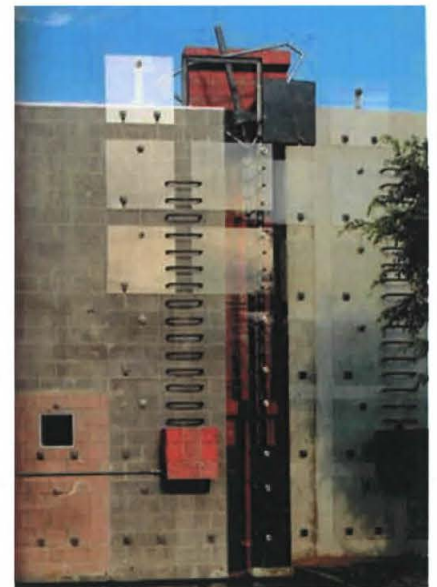
Brief History:

Designed and executed in phases over the course of four years, the Ince Office Complex is an exuberant and highly detailed response to an existing dilapidated 1940's industrial area. Originally composed of four discrete buildings, the finished complex has been transformed into a unified whole by a common architectural language. This language takes advantage of existing conditions to create spaces layered between the old and the new. Together, the Paramount Laundry Building, Lindblade Tower, Gary Group, and Metaphor provide a creative setting for an arsenal of high-tech tenants.

Existing Project Elements:

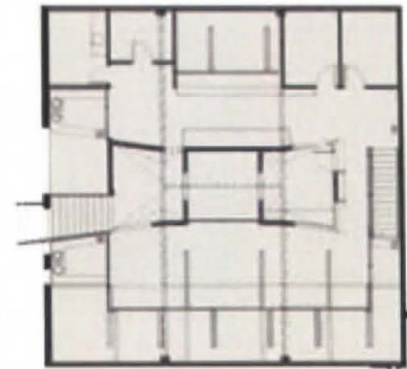
The exterior of the Ince Office Complex poses many questions, with the Gary Group, there's a question about how the exterior is read. "The front is the side, and the side is the front- if, by front, you identify what is most often seen. It has nothing to do, necessarily, with where you enter, although in Gary Group you enter on both faces."¹

The inclined wall, which we will classify as the "front" of the building, deals partially with the fundamental question of; What is a wall?. It forces the viewer to raffle with the idea of what represents stability, or more importantly instability?

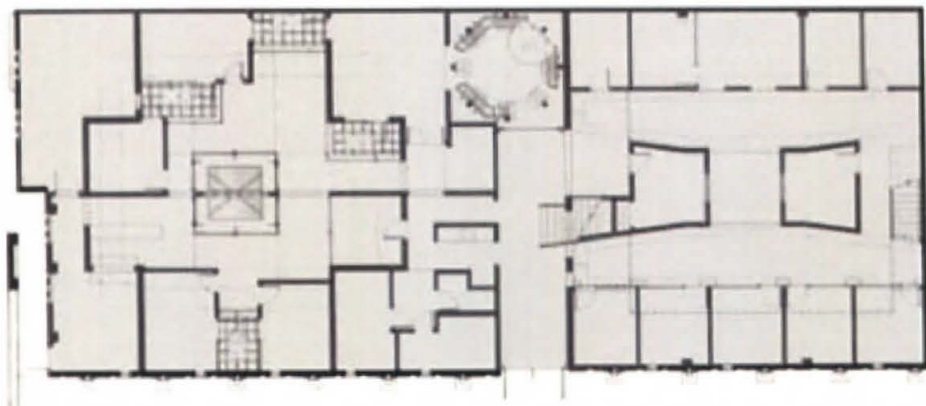


To what extent is the theorizing of the building part of the visible understanding of the building? Is the building what it is, or how it came to be? Is it the end or the sequence of development? I put the building out there and people pick it up and misunderstand it, sometimes in imaginative ways. But they never pick it up exactly the way I put it down. I think that has to do with seeing and what precedes seeing - how you look at something and understand it, or not, as a consequence of either what you bring to it or what it can teach you; a way of learning to think that you don't yet know. My buildings aspire to teach you to think in a different way, meaning the prospect exists that you would think again about how you think. The earlier work investigated overlapping geometric entities; the interior space. Now it is the space between inside and outside where geometries dance. The space in-between is flexing-inside of the outside and outside of the inside. My work is an attempt to build, very incisively, the effort to understand - a very intense effort notwithstanding the fact that it's not likely to be successful (but it might be). It's a perpetual maybe; that the space could become intelligible or graspable or manageable exists solely as a prospect. Architecture is life is space - the form-language of space. Architecture can't talk. It's not so much a translation from spoken language to space; it's the transmuted conversation from conceptual content to space in architecture, the way Goya would speak in paint or Kafka in words. Architecture's form-language makes space.

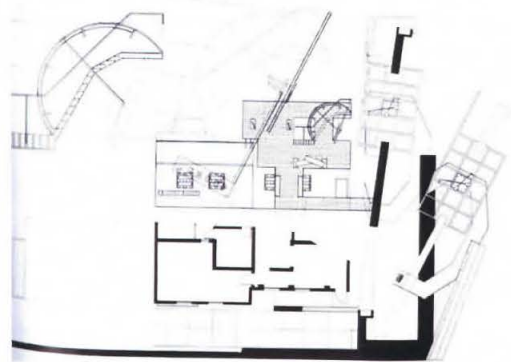
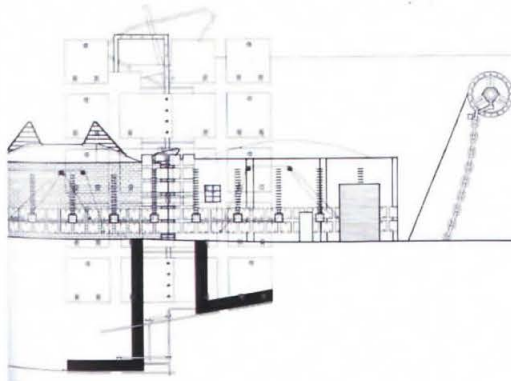
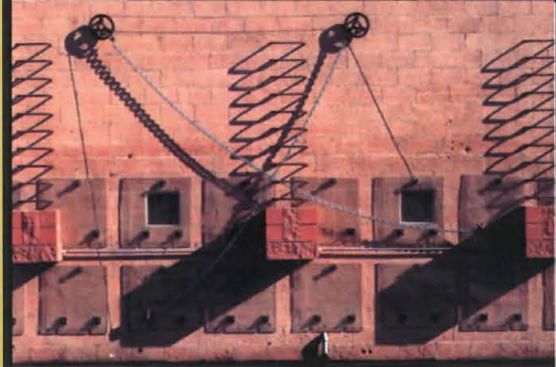
Sometimes I can see pivot points or jumps. The Petal House was a jump. The Gary Group was a leap. It was the first time I raised the issue of truth as a contradiction, what I'm calling balance or the problem of balance; balance looking for imbalance, imbalance looking for balance. What is precarious and most fragile is also the most precious, but what's most fragile is also the most durable. Hold on and give it future. The Gary group sustains the fragile. Buildings can do that. Buildings can freeze the poignant in a way that a human institution can't. At certain times it works; you hit it. The Gary Group's tilting front wall could be accounted for by a conventional structuralist exegesis; what holds what, what cause, what effect. Very intentionally I tried to abrogate or confuse the argument, but not totally lose it, so that a tiny cause might have an enormous effect. Or an enormous cause might have almost no effect, which is a way of disowning the empirical pedigree I inherited. The wall of the Gary Group touches on that. It leans, but is its inclination to fall or to straighten up? Moss, Eric Owen. "The Gary Group." Arc Space. 1997



Gary Group, Second Floor Plan



Gary Group, Ground Level Plan



The wall facing west serves as both a living wall, and a mausoleum wall. (Some of those qualities come from the ball court wall in Chichen Itza, which has these enigmatic glyphs, bas-reliefs, carvings, and a history which is not “readable,” but which is a residue of people’s lives and achievements and feelings and aspirations...all disintegrating in the sun and the rain.¹⁾ Located across this wall are sections of new block that are attached to an existing block wall. These new sections hold plants, and the re-bar ladders located above the new block sections make it possible for the plants to ‘climb up’ the re-bar ladders on the wall as they grow. Pragmatically placed along this wall is a series of windows cut into the existing wall. Lastly, there are square acrylic panels that are attached to the wall. Many critics argue about whether or not the acrylic panels are dueling or debating with the existing modular block wall. They don’t quite conform to each other, however they do lend a hand to an underlying metaphor conveyed across the block wall.

If you examine for a moment the way the acrylic, and the chains and the wheels and the re-bar, is attached to the exterior of west facing wall. Regardless of the fact that all of these attachments are exaggerated, there is still a sensibility portrayed here that really has to do with something that can be construed as a “little more fluid, a little looser, and that doesn’t subscribe to the discipline of it’s vertical/it’s horizontal. It’s possible to transcend that.”²⁾ When one observes these sweeps of chain from a distance, and notices the way in which they are connected to one another, you might concluded that in a way they reflect the organic nature of plants. They act as sort of a man-made plant, by serving as a reflection of the quality of the plants that will grow on the walls. Here, Eric Owen Moss is portraying the idea that we, as architects, can do in a sense what God does.

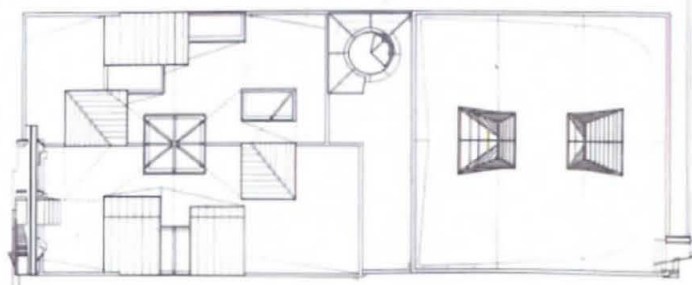
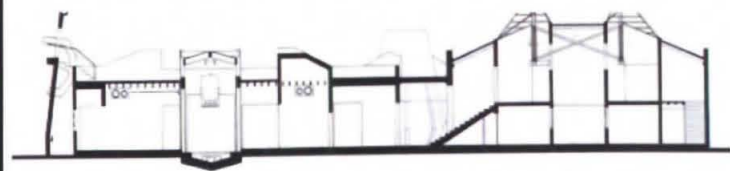
case study...

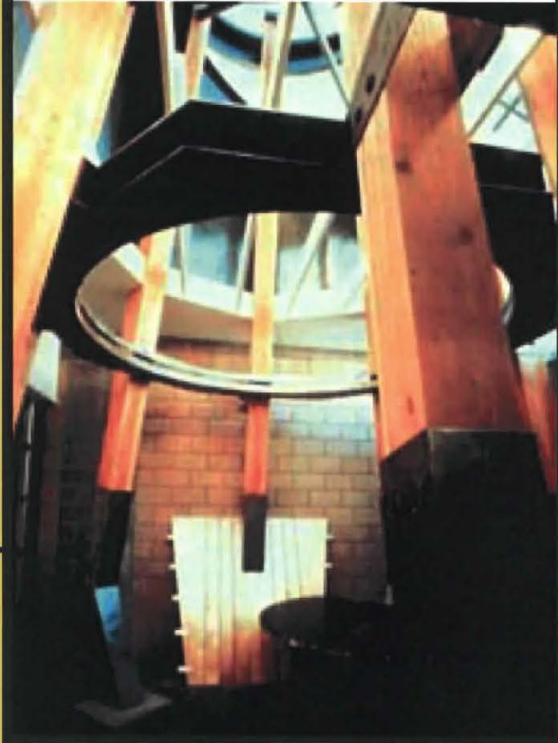
gary group in culver city



If you enter the building from the ‘front’, you come down through the lobby, and from that point you see the fountain, which is at the center of a cruciform figure. Located above the fountain, open to the sky, is a framed double-gable roof, which is the center of the cruciform. The gable projects, in theory, from all edges of the fountain, so that the office skylights are extensions of that implied roof. But in reality the gable is discontinuous. It only occurs above the fountain and the offices, and the flat roof runs in between. If you look straight up at the marble piece, with the glass gable beyond, you get a mandala—a sort of Hindu equilibrium. It’s an experience that exists as a perpetual hypothesis. It’s not quite a physical reality because the perceptual reality is a twisted view.

The fountain is irrigated with shower heads, but the water, and the performance of the water, is a sub-idea. It’s important that it’s there; it’s important that you hear it—it’s like music, delicate and inviting, and with the roll-up glass doors you fan actually get into the pool—but it doesn’t radically deform the area. It’s not like water flying. The water percolates through the locks or the fold of the marble, and it has a residue (it’s starting to stain the wall.) I think the fountain as an object has a certain amount of power, a certain amount of potency. And it also has a certain quality of surprise.¹





The back section of the building under the bow string trusses-the-so-called creative area- has two floors and is organized around two vertical shafts, which hold offices below and meeting rooms above. The shafts drop light all the way through and are covered by pointed skylights which have an odd shape.

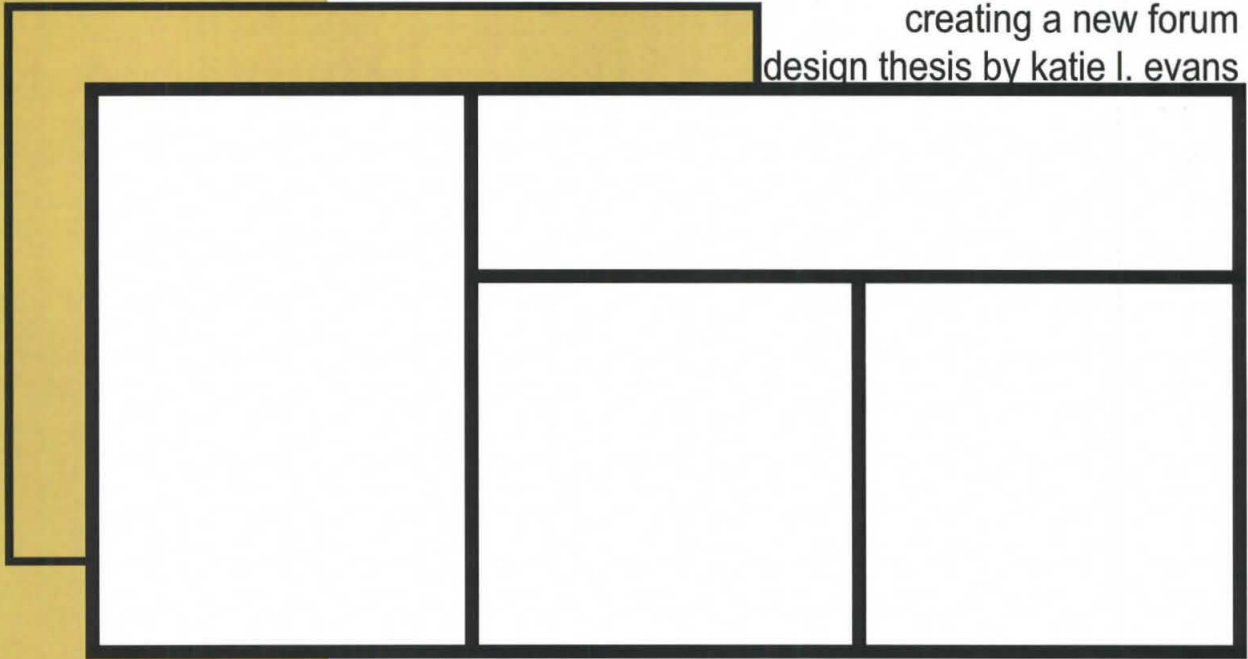


The conference room, is a more like a small meeting room or mediation space. It serves as the focal event of the interior. The room rises out of a square, in plan, and it has an octagonal inset that establishes the steel legs of the columns and the inclined birch panel goes to a point. That's a kind of discussion between two forms; one that's vertical and the one that leans. Steel legs come out of the leaning elements, and they hold wood legs that in turn suspend a big conical steel can up in the air. The legs would have been wobbly, so they're stabilized by the rings. The rings, which are both circular and octagonal, are hooked to the walls four times (back to the square). Even the ring has the circle, the octagon, and the square.

rumination on a post humanist forum

creating a new forum

design thesis by katie l. evans



What is a 'library?' Literally, the word "library" is defined as "a place containing books and other material for reading, study, or reference."¹ If we go further we can break the word "library" into its Latin derivatives: 'Liber' and '-ary.' Liber, which refers to a book, is derived from the Latin 'Libraria:' a book seller's shop. '-ary' is merely a suffix which refers to place. 'Library' can then be taken to mean: 'place of books.'² This definition goes in hand with our understanding of 'library' and its typological implications.

The standard dictionary definition of a library distinguishes between the library as a space, the library as a collection, and the library as an institution. A library is either:

- a room or set of rooms where books and other literary materials are kept
- a collection of literary materials, film, tapes, etc. or
- the building or institution that houses such a collection

Therefore, it is reasonable to deduce that 'library,' for the most part, is a response to the need for a place for the storage and presentation of information. The library typology is a result of the formal relationships necessary to store large quantities of physical volumes. But the word 'library' bears further implications. 'Library' is part of a democratic philosophy. The public library is fundamentally a part of every level of the institution of government to ensure that everyone has the privilege and the right to accessible information. Our society was founded on the belief system that information should be free to all whom seek it. Today, in our ever expanding global society knowledge is power; and in a democracy where the goal is to insure equality among all people, the privilege to accessible information is paramount.

I feel it is important to stress that this thesis does not take its name, its essence, nor does it derive its meaning from the word library. This building is not intended as a place of books. This is not to say that the library won't have a role in modern society. We have already examined how the 'library' as a typology will have to change in the future, in light of societies evolution, lets' now examine the origins of the 'library' and how it has evolved up to this point.

Date	Type of Communication	Method of Communication
500 -1000BC	Hieroglyphic	Stone, clay, or papyrus
500 - 300 AD	Alphabet	Papyrus (rolls)
500 -1200	Alphabet	Animal parchment
1200 -1500	Cursive handwriting & numeracy	Paper (books)
1500 -1800	Printing press	Paper (books)
1800 -2000	Mass production, priting	Paper (books, journals, newspapers)

The collection of written information in some sort of repository is a practice which dates almost as far back as the beginning of civilization itself. Since the dawn of time man has found value in developing a symbolic language in order to communicate and preserve information. The first libraries were only partly libraries, being composed for the most part of the unpublished records that make up archives. Archaeological findings from the diggings of the ancient city-state of Sumer have revealed temple rooms full of clay tablets in cuneiform script which date back more than 5,000 years. Archaeologists have also uncovered papyrus scrolls from 1300-1200bc in the ancient Egyptian cities of Amarna and Thebes. These archives were comprised almost entirely with records of commercial transactions or inventories, with only a few documents touching on theological matters or legends.

Private or personal libraries made up of nonfiction and fiction books, (as opposed to the state or institutional records kept in archives) first appeared in classical Greece. It has been said that the ancient Greeks propelled the idea of fictional and nonfictional writing through their heightened interest in literacy and intellectual life. The first theological libraries appeared some time near the 5th century before our era. They were filled with parchment scrolls and later on papyrus scrolls. There were a few institutional or royal libraries like the 'Great Library of Alexandria.' The Great Library, founded about 300bc, was open to an educated public, those with the proper scholarly and literary qualifications. However as a whole collections at this time were still mainly private.

In some rare cases it was possible for a scholar to consult library books, however there seems to have been no direct access to the stacks. In all recorded cases the books were kept in a relatively small room where the staff went to get them for the readers, who had to consult them in an adjoining hall or covered walkway. This type of library flourished through a well-established process: authors wrote on a variety of subjects, scriptoria, or copy shops produced the books, and book dealers sold them. Copying books was an lucrative business and one in high demand, because a book's 'trustworthiness' translated into quality. An Athenian decree called for a repository of "trustworthy" copies. Though the concept of the public library first appeared around the fourth century bc, the private library was much more prevalent at this time. Aristotle, for instance, amassed a large private collection. Ancient geographer Strabo said Aristotle 'was the first to have put together a collection of books and to have taught the kings in Egypt how to arrange a library.'⁴

Little is known about early Chinese libraries, except for what is written about the imperial library which began around the same time as the Qin Dynasty. One of the curators of the imperial library in the Han Dynasty is believed to have been the first to establish a library classification system and the first book notation system. At this time the library catalog was written on scrolls of fine silk and stored in silk bags.

In the West, by the middle of the second century bc, Rome also boasted rich library resources. Initially comprised of some scattered private collections, holdings eventually expanded through the spoils of war. Even Aristotle's famed collection was among the bounty. Julius Caesar dreamed of establishing a public library in Rome, but his vision was cut short by his untimely assassination. After Caesar's death, Asinius Pollio acquired the requisite funds to make the dream a reality. The library was divided into two sections - one for Greek and one for Latin, serving as a model for subsequent Roman libraries. The records give only a few instances of lending features. Great statues adorned the walls. Books, typically acquired through donations by authors and others, as well as through copying, were placed along the walls and readers consulted them in the middle of the room. This marked a distinct departure from the Greek model, where readers could only consult their books in an atrium away from the rest of the collection.

To serve as director of a library was a great honor. The role became a stepping stone for the ambitious government servant. Staffs typically consisted of slaves and freedmen, who were assigned to either the Greek or the Latin section. Staff fetched rolls from the systematically arranged and tagged bookcases and returned them. They usually transported the rolls in leather or wood buckets. Scribes made copies to be added to the collection and recopied damaged rolls, while keeping the catalog up to date. Libraries were typically open during standard business hours, which at this point in history was from sunrise to midday.⁴

Form Dictates Function

Throughout most of the library's history, the term "book" referred to works written on papyrus and some parchment rolls. Beginning in the second century, stacked and bound wooden boards recorded literature, science, and technical information. These tablets, called codex, derived from a centuries-old practice of using wooden writing tablets for notetaking. These new, durable codices gradually replaced the fragile rolls. However, rolls continued to be used for archival-type documents. Parchment eventually replaced the wooden boards.

The new codex form impacted book storage. Codices were stored flat on the shelf and covers protected their leaves. The libraries had to find ways to house both rolls and codices. New libraries emerging in the Middle Ages in churches, schools, and monasteries concerned themselves only with the codex form.⁴

Rome had only three public libraries at the time of Augustus' death in 14ad: Pollio's, one in the Porticus of Octavia, and Augustus' on the Palatine Hill.⁴ When Trajan (98-117ad) dedicated his monumental column in 112-113, a library, sectioned into the traditional Greek and Latin chambers, was part of it. The collection there grew to include some 20,000 volumes. Still, libraries remained the domain of the learned: teachers, scientists, and scholars. Where were the masses to go? At this time in history the mass went to the imperial baths to gain access to a 'library.' At the baths, men and women, rich and poor could take a bath, meet with friends, play ball, and read a book. Libraries were added to the baths until the third century. But in 378, the historian Ammianus Marcellinus commented, "The libraries are closing forever, like tombs."⁵ As the Roman Empire fell, libraries seemed doomed to extinction along side it.

In the early 500s in Egypt, a man named Pachomius established a monastery and insisted on literacy among his monks. This was to have a long-lasting effect even after the Roman Empire split in two about 100 years later. Throughout the rest of the eastern empire, monastic communities emerged with small and mostly theological libraries. 'Even though libraries disappeared in the western empire due to invasion, lack of funds, and lack of interest, monasticism gave rise to an explosion of learning.'⁵ In 529ad, Benedict established a monastery in Monte Cassino and established a rule by which the monks would live. The Benedictines created libraries and the scriptorium became sacred. It soon became customary for monasteries to lend to other monasteries, giving birth to the inter-library loan. Charlemagne, who owned a robust library in Aachen in the eighth century, ordered every school to have a scriptorium. The road was well paved to invite the Renaissance and a new age for libraries.

During the early Middle Ages, after the end of the western Roman Empire and before the rise of the large Christian monastery libraries, Islamic libraries knew a period of great expansion in the Middle East, North Africa, and Spain. Like the Christian libraries they mostly contained books which were of a codex or modern form instead of scrolls.

By the 8th century first Iranians and then Arabs had imported the craft of paper making from China, with a mill already at work in Baghdad in 794. By the 9th century completely public libraries started to appear in many Islamic cities. They were called “halls of Science” or dar al-‘ilm.⁴ They were each endowed by Islamic sects with the purpose of representing their tenets as well as promoting the dissemination of secular knowledge. The libraries often employed translators and copyists in large numbers, in order to render into Arabic the bulk of the available Persian, Greek and Roman non-fiction and the classics of literature. After but a few centuries many of these libraries were destroyed by Mongolian invasion. Others were victim of wars and religious strife in the Islamic world.

The design of the medieval library arose very directly from the fact that these books were manuscripts created via the labor-intensive process of hand copying, and were valuable possessions, were therefore likely to be stolen, and were far too expensive for most people to own. The architecture of the medieval period derived from the need to chain these books, first to lecterns and later to armaria and shelves, in areas that were illuminated by sunlight. ‘Early libraries were located in monastic cloisters associated with scriptoria and were collections of lecterns with books chained to them. Shelves built above and between back-to-back lecterns were the beginning of book presses.’⁴ The chain was attached at the fore-edge of a book rather than to its spine. Book presses came to be arranged in carrels (perpendicular to the walls and therefore to the windows) in order to maximize lighting, with low bookcases in front of the windows. This stall system (fixed bookcases perpendicular to exterior walls pierced by closely spaced windows) was characteristic of English institutional libraries. In Continental libraries, bookcases were arranged parallel to and against the walls. This wall system was first introduced on a large scale in Spain’s El Escorial.

As Europe emerged from the depths of darkness into the light of learning, its people began to look to the Greek and Roman artistic and literary classics for inspiration. Many aristocrats of the period were dedicated to developing their private libraries.

Gutenberg’s movable type innovation in the 1400s revolutionized bookmaking. Printed books replaced handwritten manuscripts and were placed on open shelves. The emergence of the library did not occur directly as a result of the invention of the printing press, it was moreover a consequence of the growth in rational thought. Most historians agree that libraries, as places for the collection and storage of information, are among the oldest types of structure built by man. The library, as we know it today, first occurred during the Renaissance period. With the creation of written documents, the need arose to provide places for their storage. However, the library wasn’t recognized as a building type until the eighteenth century. It was then that the library emerged with its own nomenclature of forms, functions and details.

‘The correspondence between the book and the building flowed from the rational nature of thought in the Enlightenment. The library became a safe, well-lit warehouse where the readers’ needs become as important as that of the collection.’³ In the nineteenth century, the text of the building and the text of the books housed within shared a common ideal. The formal organization of architectural space and the space in the mind liberated by the power of the written word became symbolically united. It is this symbiosis which led to the ‘domed reading rooms –itself a metaphor for the human brain. The books, inventories, journals, and catalogues of the modern library are in this sense merely an enlarged version of the human intellect.’³ Inevitably, the building sought not only to control the sum of human

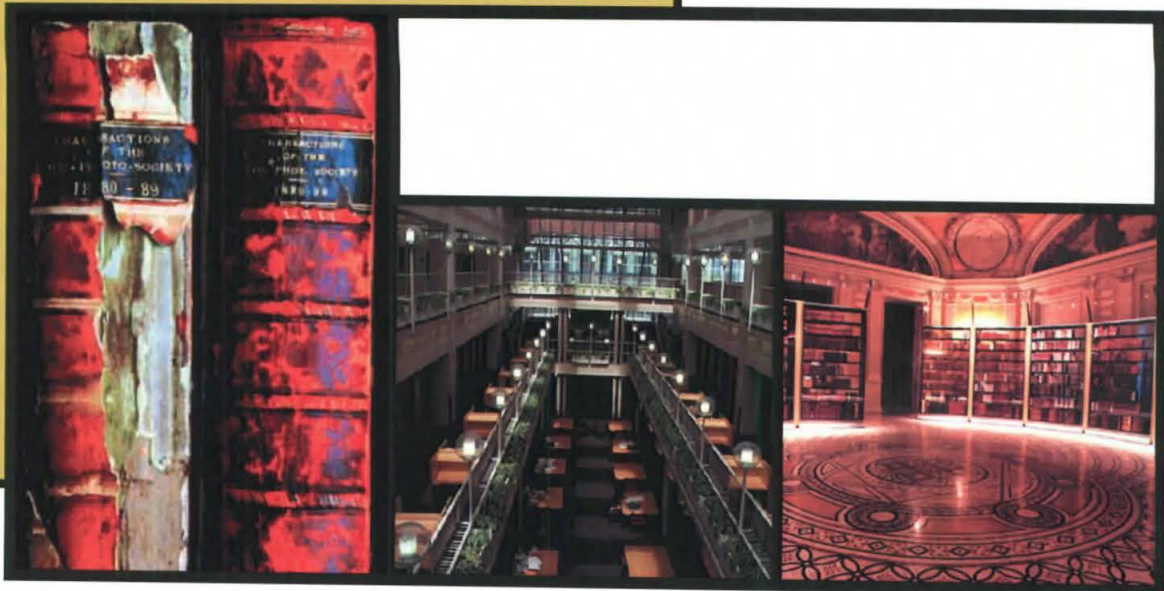
knowledge within its walls, but also to celebrate its presence. The library serves as a dwelling which focuses on higher ideas, such as -the status of learning, the importance of the written word and the symbolic celebration of free access to society's knowledge.

Throughout the 1600s and 1700s, libraries surged in popularity. They grew as universities developed and as national, state-supported collections began to appear. Many of these became national libraries. As books became cheaper, the need for chaining them lessened, but as the number of books in libraries increased, so did the need for compact storage and access with adequate lighting, giving birth to the stack system, which involved keeping a library's collection of books in a space separate from the reading room, an arrangement which arose in the 19th century. Book stacks quickly evolved into a fairly standard form in which the cast iron and steel frameworks supporting the bookshelves also supported the floors, which often were built of translucent blocks to permit the passage of light (but were not transparent, for reasons of modesty). With the introduction of electrical lighting, the use of glass floors was largely discontinued, though floors were still often composed of metal grating to allow air to circulate in multi-story stacks.

Ultimately, even more space was needed, and a method of moving shelves on tracks computer shelving was introduced to cut down on otherwise wasted aisle space. Thus, modern libraries are increasingly being redefined as places to get unrestricted access to information in many formats and from many sources. More recently, libraries are understood as extending beyond the physical walls of a building, providing assistance in navigating and analyzing tremendous amounts of knowledge with a variety of digital tools. Whether private or public, the library has been founded, built, destroyed and rebuilt. The library, often championed, has been a survivor throughout its long history and serves as a testament to the thirst for knowledge

There has always been a correspondence between the type of communication medium, the method of distributing it, the nature of the space in which communication occurs and society. The building in which the dialogue between word, book, and society has taken place is, of course, the library. Therefore, we need to explore and examine for a moment the nature of communication and how it has evolved and its effects on the library as a building type. Communication is the act of making. It is the ability to share information. Since the dawn of our being, man developed symbolic languages in order to communicate and preserve information to be passed on to others. Historically, the pattern of communication has changed drastically 'from durable media (carved stone, parchment) to non-durable media (electronic messages).'³

The notion of a Library as a building typology is clear. As architect's we know what a contemporary library is: its forms, functions, and details. What then is the distinction between the library, as we know it today, and a new forum which embraces not only modern-day communication, but also celebrates technology? The needs for this forum (or library split) are different than that of a contemporary library, due to the fact that the nature of communication has changed and will continue to change. Information is no longer only stores (confined) upon shelves, within printed volumes. We need to re-examine our relationship to physical space. As technology changes the nature of communication, it opens up the realm of technological thinking and frees us from the physical bounds of information.



It is no longer sufficient to see the library as simply a storehouse of information, especially in the age of information technologies. Reading and accessing information via the computer screen requires a bond of dedicated effort between not only the book and the reader, but also between the screen, and space. Space is therefore essential, but the character of the space is hard to define. The social, cultural, political, and educational aspirations of the library and its collection alter its typology, and the use of space.

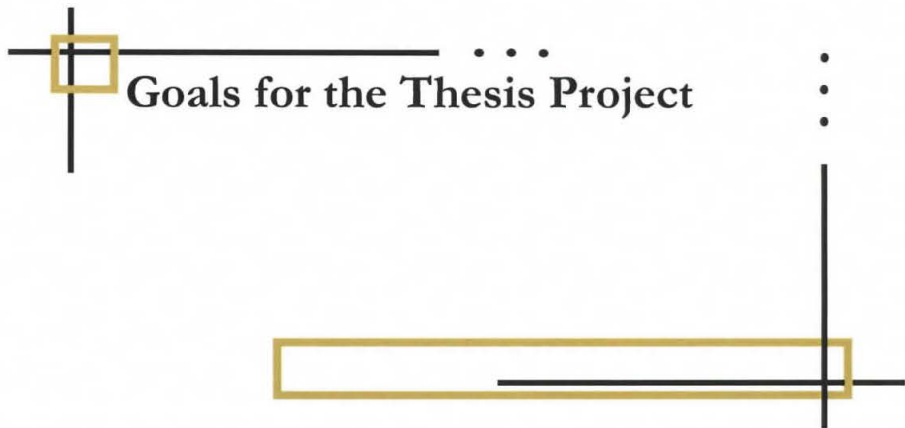
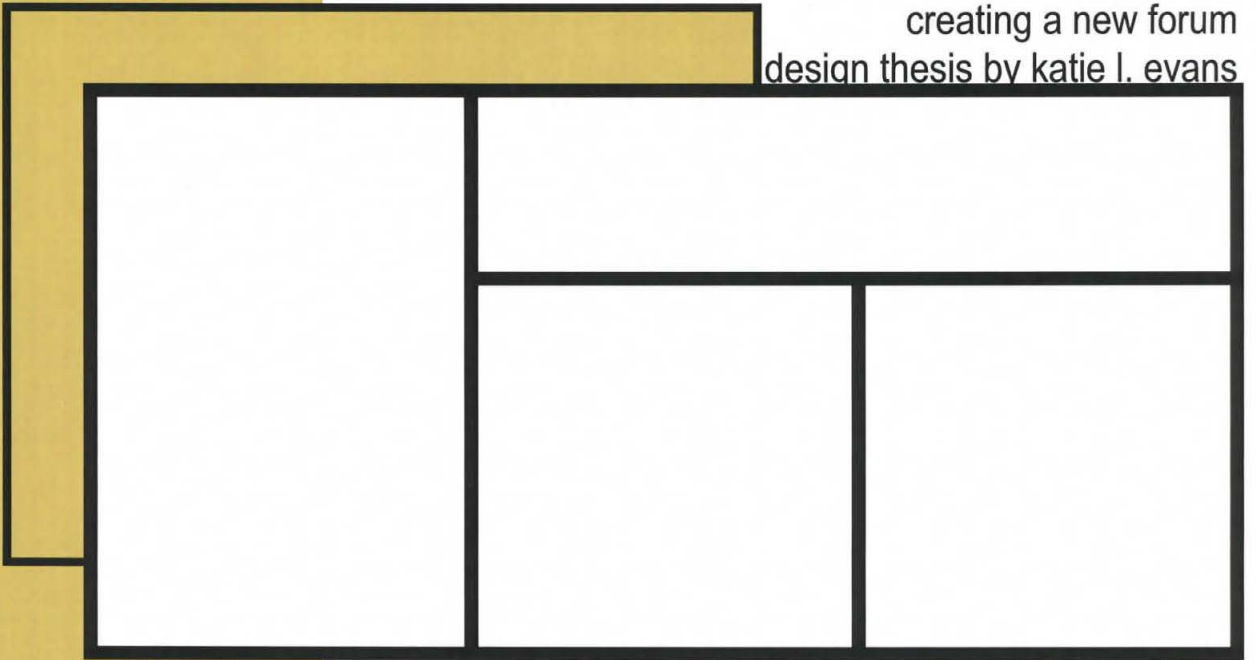
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rumination on a post humanist forum

creating a new forum

design thesis by katie l. evans



- Provide a clear and concise theoretical premise.
A clear well thought out theoretical premise will provide the driving force, and outline the framework for the research document. It will also be crucial in beginning the conceptual design phase.
- Provide a strong metaphor to drive the design of my thesis project.
A strong underlying metaphor will provide the base which to begin the design process. It will also be vital in regards to assuring that the design stays grounded.
- Provide a well defined typology.
Since I am proposing a new typology, it must be well defined in order to establish validity. This will be established through the research and case study analysis.
- Provide a clear eyed description of social, political, and economical aspects of the design.
- Provide a complete and well organized thesis program.
- Define a well thought out and presented schedule to drive the design.
- Provide a well thought out means of collecting and effectively presenting the process taken throughout the various design stages.
- Design an end product that is outstanding and worthy of professional satisfaction.
- Provide superior graphics and model presentations that successfully convey my design intent.
- Develop a well thought out and organized oral presentation.
- Be able to convince or at least persuade Stephen that technology is not the devil, and architecture can benefit from it.

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Site Analysis . . .

⋮

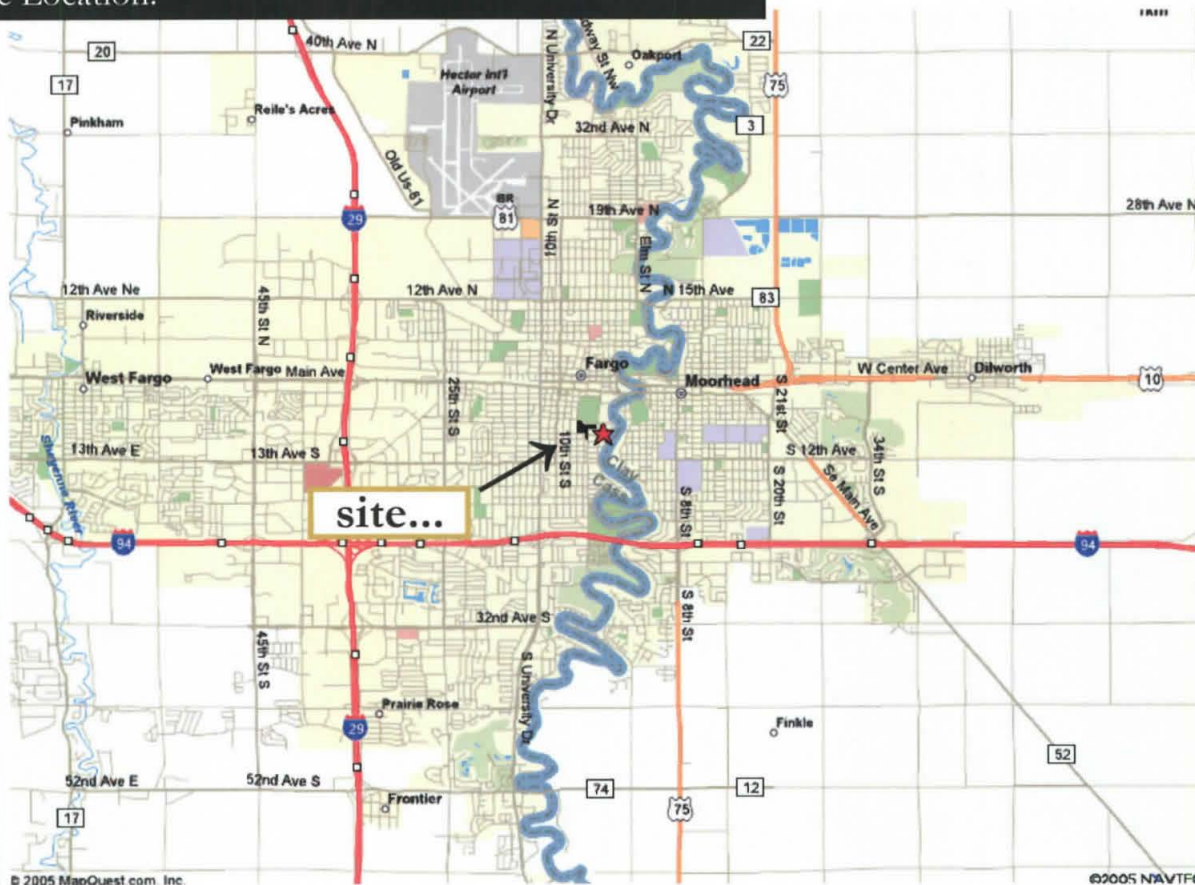


The Red River Valley was formed by the Glacial Lake Agassiz about 12,000 years ago, which was created from the melting of the continental glacier that covered the Basin. The lake eventually drained and left what is now known as the Red River Valley.

To get an understanding of the site characteristics we must begin by looking at the site as a whole. Factors involved in this understanding will include, site context, topography, climate, sunlight and wind characteristics, geological features, traffic, etc.



Site Location:



The chosen site is located on the southeast end of the state of North Dakota. Fargo, ND has an estimated population of about 90,599. Fargo has a warm, friendly, small town atmosphere, complemented by metropolitan area advantages.



Context:

The site is surrounded by various activities. The site is located on the edge of downtown Fargo, the property address is 653 8th avenue south. This site is bounded on the north by 6th avenue south, and Island Park, within which you can find such amenities as a public parking lot, tennis courts, bike trails, etc. Located to the south is the R.D. Offutt Company building, and Hawthorn public school, after which the site is bounded by 8th avenue south. To the west, the site is bounded by the RDO parking lot and three apartment buildings and to the east by an apartment complex and residential housing. In terms of area the site is roughly 4.66 acres. (203,034 square feet) There is a sidewalk that runs along the boulevard to the west, as well as, to the south just a long the property line of the RDO building which defines an edge, also at which the site slopes substantially. The major landmark in close proximity to the site is Island Park, thus serving to connect the site back into downtown Fargo.

Vegetation:

The native vegetation of the region consists of tall prairie grasses such as Bluestem, Switch Grass, and Indian Grass. Cottonwoods, Willows, Oaks, American Elms, Green Ashes, and American Lindens are just a few of the native trees in the region. The natural prairie is primarily covered with grasses and has few trees. The trees that are native grow thick around bodies of water and rivers.

Wind:

The prevailing winds on the site are from the northwest during November through April and from south to southeast during May through October. The wind is strongest in April when it averages 13.6 mph, and it is weakest in July with it averages 10.5 mph. This site has none or very few micro climates because it is relatively flat and there are no water bodies close to it.

Traffic Conditions:



Figure :traffic conditions of project site fargo, nd

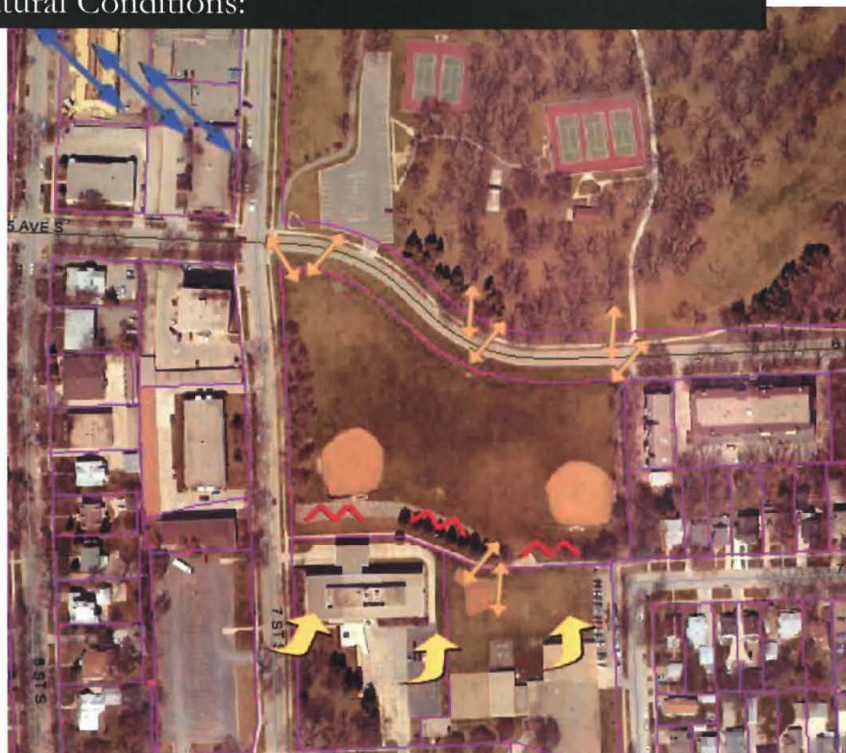
- ● pedestrian traffic
- vehicular traffic
- parking

Existing Features:



- public buildings
- island park
- hawthorn public school
- housing

Natural Conditions:



- full southern expo
sure to sun
- steep hillside
- good views
- winter winds from
north/northwest

Sun Angles and Percentage of Sunny Days:

Day length and solar zenith angle are also important factors affecting Fargo North Dakota climate. Day length ranges from less than nine hours in December to more than 16 hours in June. Noon sun angles are much higher in summer than in winter. The combination of these factors at Fargo's location produces much more radiational energy at the earth's surface in summer than in winter, which contributes to the large seasonal temperature changes and the general north-south temperature gradient across the state.

North Dakota receives a higher percentage of possible sunshine and more hours of sunshine annually than any state on the Canadian border. On an annual basis, Fargo North Dakota receives 58 percent of total possible sunshine (Table 1). July is the sunniest month when approximately three-fourths of the possible sunshine is recorded, while November is the poorest month for sunshine when only 40 percent of possible sunshine is registered. The amount of possible sunshine increases 13 percentage points from June to July, remaining high through August. Annually, Fargo North Dakota registers about 2,600 hours of sunshine. Roughly 25 percent of the total hours of sunshine occur in July and August.

Table 1: Percent of possible sunshine by month for Fargo.

Location	Month												Year
	J	F	M	A	M	J	J	A	S	O	N	D	
Fargo	50	59	59	58	58	58	71	68	59	57	40	44	58%

table 1

Cloudiness:

More days average out to be cloudy than clear or partly cloudy over the course of a year (Table 2). The most cloudy days occur from late fall to early spring. The number of clear days is about the same for all months from November through June. In July the number of clear days sharply increases and remains at about the same level through August, before becoming somewhat fewer in September and October. As a generality, it can be said that July and August will record about twice as many clear days as during any other months of the year, while the number of cloudy days in July and August will only be half as many as for other months of the year.

Table 2: Average number of clear days (C), partly cloudy days (PC), and cloudy days (CY) between sunrise and sunset. Sky cover is expressed in a range of 0 for no clouds to 10 for complete sky cover. A clear day is based on a daytime average cloudiness of 0 to 3, partly cloudy day from 4 to 7, and cloudy days from 8 to 10.

Location	Sky	MONTH												Year
		J	F	M	A	M	J	J	A	S	O	N	D	
Fargo	C	6	7	5	6	7	6	11	11	9	10	5	6	89
	PC	8	7	9	9	10	11	13	12	9	8	7	8	111
	CY	17	14	17	15	14	13	7	8	12	13	18	17	165

table 2

Soils:

The soils in this region are very good for growing crops, however, they prove to be poor for carrying loads. The soils found in this region are ones left behind after the glacial Lake Agassiz drained and are typically composed of clay and silt. For any tall buildings or heavy loads, casings must be poured to a depth of 100 to 200 feet.

Figure 1 is a map outlining the general construction conditions for all of Cass County, ND, and Clay, Co., MN. Dark green is 'good,' light green is 'good-to-moderate,' yellow is 'moderate,' and red is 'poor.' The entire Fargo-Moorhead metropolitan region lies in a sea of red color.

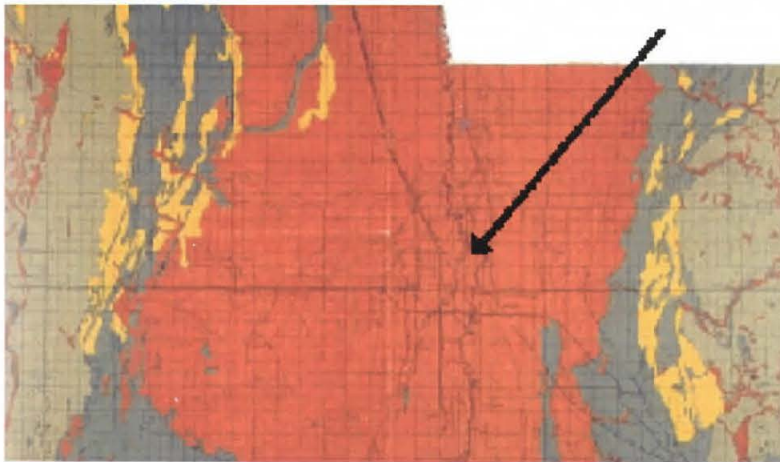


Figure 1.
General construction conditions of Cass County, North Dakota and Clay County, Minnesota (from Arndt and Moran, 1974). East-west distance across map is approximately 115 km (71 miles). The arrow points to the Fargo-Moorhead metropolitan region.

Fargo is highly prone to geologically-induced damage. Underlying the Red River Valley are soils that induce both great agricultural activity and challenging geotechnical conditions. These soils are developed on a wedge of smectitic clays and silty-clays derived predominantly from late-glacial erosion and reworking of Cretaceous shales and dispersed as suspended sediments into Lake Agassiz (it is these clays that form the 'red' coloration of Arndt and Moran's [1974] map; Fig. 1). This wedge thickens northward along the axis of the Valley. At Fargo, it is 32 m (105 feet) thick, with a predictable stratigraphy of 6 m (20 feet) of tan-buff laminated silty-clays of the Sherack Formation underlain by 26 m (85 feet) of gray, slickensided, fat clays of the Brenna/Argusville Formations (Fig. 2).

The Fargo series consists of nearly level and gently sloping, poorly drained soils. These soils formed in lacustrine clay on a glacial lake plain, and many areas have a slight microrelief of alternative ridges, draws, and depressions. Stronger microrelief is common where Fargo soils occur in complexes with Hegne or Bearden soils. Areas of gently sloping soils commonly are adjacent to rivers and other natural drainageways. Fargo soils form under tall prairie grasses and some reeds and sedges. This soil is nearly level or slightly concave and has some shallow microrelief. The ridges and narrow swales of the microrelief run from northwest to southeast and have a 4 to 12 inch difference in elevation. Deeper, circular or slightly oblong depressions are spotted along the swales. Narrow areas of gently sloping soils are near rivers and other streams. The natural surface runoff is slow, and there are few adequate natural drainageways.

At the site of the Fargo water treatment plant (data from Midwest Testing Laboratory), typical soil engineering values for the Sherack Formation (depth: 1 – 6 m) are:

PL (plastic limit) = 30,

LL (liquid limit) = 85,

N (number of blows for Standard Penetration Test) = 12, and

Qu (unconfined compressive strength in lbs/ft²) = 3000.

The high shrink-swell properties of these clays induce foundation shifting, pavement failure, and utility line rupture. Where the sediments are unconfined, their high plasticity leads to slope instability; the valley and channel walls of the Red River and its tributaries are particularly prone to slope failure.

Soil Analysis:

Soil Type: Generally soils are classified as clay, sand or loam soils. Clay soils, predominate in the Red River Valley are fine, have more organic matter, hold water longer and drain slow. Sandy soils on the other hand are larger in particle size, mostly mineral, can be droughty allowing water to drain through quicker. Loam soils are in-between with good organic matter and moderate in water permeability and holding capacity.

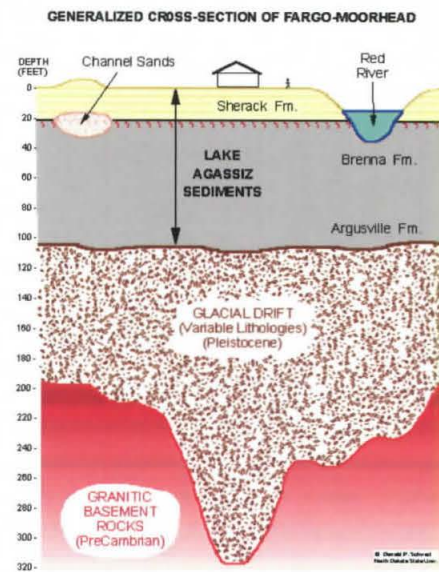


Figure 2. Generalized geologic cross-section of the Fargo-Moorhead region. (Schwert).

Water Table:

The soils on this site are typical of those found on or near the Red River Valley. The site is comprised of Saline and sodic soils that generally occur on landscape positions where groundwater discharges by evapotranspiration form a shallow water table. In these soils, the water table will fluctuate seasonally, but generally be within 6 feet on the surface for a large part of the growing season. Because soil texture affects the flow of water through soil, it also affects the depth of the water table necessary to cause salinization. Coarse textured soils allow upward capillary movement of water to occur only over a short distance. Therefore, a higher water table is required for salinization of coarse textured soils, such as sands or sandy loams, compared to finer textured soils, such as loams or clays. However, because the large pores in coarse textured soils offer much less resistance to water flow compared to the smaller pores in fine textured soils, salinization can occur much quicker in coarse textured soils.

When the Red River begins to flood, we hear reports of “stages” or of “flood stages.” These values are typically given in feet. But just what does “17 feet,” “30 feet,” or “40 feet” mean? Here’s a useful guide, based on various geographic positions along the Red River in the Fargo-Moorhead region.

Feet	
17.0	Official flood stage. This depth is based on that at the gaging (= gauging) station east of the Fargo Water Treatment Plant, 13th Ave. S. and 4th St. Minor flooding along Moorhead Golf Course. Water rises to edge of bike path at El Zagal “bowl” along Elm Street, N. between 14th and 15th Avenues Fargo.
17.5	Elm Street closes at El Zagal “bowl,” between 14th and 15th Avenues Fargo.
19.0	Drowning of low-level dam south of Main Ave.
22.0	Red River bridge on North Broadway floods.
24.5	Clearance of toll bridge at 12th Ave. N., Fargo.
25.5	Without diking, the outfield would flood at Jack Williams Stadium, north Fargo.
30.0	12th Ave. N. toll bridge closed. Red River bridge on Cass County 20 closed. Water crosses entrance road to Gooseberry Mounds Park, Moorhead.
33.0	Design level for top of earthen dike at El Zagal golf course, Fargo (although the dike has severely sagged below this level since its construction in 1979).
34.4	NP/Center Ave. bridge clearance.
34.9	Flood crest on April 19, 1979.
35.3	Flood crest on April 9, 1989.
36.3	Clearance of the 1st Ave. N. (Fargo) and 2nd Ave. N. bridges.
37.3	Flood crest on April 15, 1969.
37.4	Oak Grove School floods.
38.2	“100-year flood interval.” Close “Convent Bridge” at 52nd Ave. S. (Fargo).
39.1	Flood crest on April 7, 1897. This represents the “500-year flood interval” (25,000 ft ³ /sec.).
39.5	Flood crest on April 18, 1997.
40.0	Water levels hit limit of Island Park dike and are lapping at base of Heritage Hjemkomst Interpretive Center.

Topography:

The topography of the Red River Valley is relatively unchanging due to the movement of the glaciers, and is considered one of the flattest regions in America. Along the Red River Valley from the South Dakota border to Canada there is an overall slope of less than one foot per mile. This area is known for the vast fertile farmland and rolling prairies.

Drainage is going to be an issue on this site due in large to the drastic topographic change on the site. Therefore, man made drainage will have to be considered to make this site a good candidate for the proposed development.

Climate Data:

site analysis...

Fargo Temperature	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Avg. Temperature	5.9			43.0		65.5				45.7			41.0
Avg. Max Temperature				53.8		77.4				56.7			51.5
Avg. Min Temperature	-3.6	2.7		32.1		53.6				34.6		3.1	30.3
Days with Max Temp of 90 F or Higher	0.0	0.0	0.0		1.0	2.0	5.0	5.0	1.0		0.0	0.0	14.0
Days with Min Temp Below Freezing				17.0	4.0		0.0	0.0	2.0	13.0			179

table x

Fargo Heating and Cooling	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Heating Degree Days					307				239				9254
Cooling Degree Days	0.0	0.0	0.0	0.0		108	209	165		0.0	0.0	0.0	537

table x

Fargo Precipitation	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Precipitation (inches)	0.7	0.5	1.1	1.8	2.5	2.8	2.7	2.4	2.0	1.7	0.7	0.7	19.4
Days with Precipitation 0.01 inch or More	9.0	7.0	8.0	8.0		11.0		9.0	8.0	7.0	6.0	8.0	100.0
Monthly Snowfall (inches)	9.6	6.1	7.5	3.2	0.1		0.0		0.0	0.6	6.1	7.2	40.4

table x

Other Fargo Weather Indicators	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Wind Speed						11.6		11.0					12.2
Clear Days	7.0	6.0	5.0	6.0	7.0	6.0		10.0	9.0	9.0	5.0	6.0	88.0
Partly Cloudy Days	7.0	7.0	9.0	9.0		11.0		12.0	9.0	8.0	6.0	7.0	109
Cloudy Days						13.0	8.0	9.0					168
Percent of Possible Sunshine						62.0		69.0					57.0

table x

Because of North Dakota's location in the center of North America, the climate is a typical continental climate. This is characterized by larger annual, day to day, and daily temperature changes. The precipitation in this climate is light to moderate and tends to be irregular in time and coverage. Other aspects of this climate are a low relative humidity, plentiful sunshine, and nearly continuous air movement.

temperature...

The normal average annual temperature in Fargo North Dakota ranges from 37° F to 43° F. January is the coldest month with average temperatures ranging from 2° F to 17° F. July is the warmest month with temperatures averaging 67° F to 73° F. The range of normal average monthly temperatures between the coldest and warmest months is 54° F to 65° F. These large annual ranges attest to the continental nature of Fargo's climate. The highest temperature ever recorded in Fargo was 121° F, and the lowest temperature measured was -60° F. Temperatures of 100° or higher occur nearly every year.

humidity...

Comparison of average relative humidity data at six-hour intervals is shown in Table A. The average 6:00 p.m. relative humidity for the year at Fargo is 62 percent, respectively. That is quite a drastic change from the average 6:00 a.m. relative humidity for the year, which is 81 percent, that is a 19 percent difference in only a twelve hour period of time. Notice also in Table A that relative humidity is higher at midnight and 6:00 a.m. in summer than in winter, while at noon and at 6:00 p.m. the relative humidity is much lower in summer than in winter.

Table A: Average relative humidity by month and for year at hour indicated.

Location	Time	J	F	M	A	M	J	J	A	S	O	N	D	Yr.
Fargo	Mid	72	75	81	78	71	77	80	77	81	78	80	77	77
	6A	72	75	82	82	79	83	86	87	88	83	83	78	81
	12N	68	70	70	62	52	58	55	53	60	60	69	74	63
	6P	71	72	70	60	48	55	53	48	58	61	72	76	62

table x

precipitation...

At Fargo, the average date of soil surface freezing was November 26. Freezing progressed to greater depths throughout the winter until the average maximum frost penetration depth of 4 1/2 feet was reached April 1. Surface thawing in the spring began on March 26, a few days earlier than the occurrence of maximum frost penetration. After April 1, soil thawing preceded both downward from the surface and upward toward the surface from the deeper unfrozen soil until May 1 when the last of the frozen soil about the three-foot level was thawed.

The lowest average soil temperature of 8.2° F was found at the one-fourth-inch depth on January 17. The time of minimum soil temperature for deeper soil depths was progressively later, with minimum soil temperatures at the 4 1/2 foot depth occurring on April 1. Highest average soil temperature at the 1/4-inch depth reached the low 80's during the third week in July. As in winter, soil temperatures at greater depths reached their highest levels at a later time in the season. For instance, soil temperatures at the two-foot depth did not reach their highest levels until about August 6, while three-foot deep maximum temperatures were reached August 15.

Table B: Frost Penetration.

Location	Penetration	
	Average (feet)	Extreme (feet)
Fargo	4.5	6.0

table x

site analysis...

visibility...

site analysis...

In Figure 1, the percentage of hours in the month is graphed when visibility is limited to less than seven miles by fog, smoke or haze, blowing snow, and dust. Blowing snow restricts visibility to the greatest extent in January when it is recorded in nearly 17 percent of the weather observations. The high frequency of hours that blowing snow limits visibility in January is characteristic of the extreme eastern portion of the state in the flat Red River Valley. Fog is most apt to reduce visibility in February and March when it is present 8 to 9 percent of the total hours during the month. Fog is most common in these months because of warmer air overriding the snow cover which is usually present at that time of the year. Dust, smoke and haze are usually present during only a few tenths of one percent of the hours in any particular month. In April, however, dust may limit visibility during nearly 3 percent of the hours. Dust occurrence is highest in April as the normally strong winds sweep the barren soils which have not yet been cultivated nor a crop cover established. The extremely low percentage of hours in which smoke or haze limits visibility attests to the fine quality of North Dakota air. The number of days annually in which fog reduces visibility to one-fourth mile or less is 13 days at Fargo (Table D). Fog reducing visibility to 1/4-mile or less is usually of short duration, and a fog which restricts visibility in the afternoon hours is also unusual.

Figure 1: Percentage frequency of hours in month in which fog, smoke or haze, blowing snow, or dust restricted visibility to seven miles or less at Fargo.

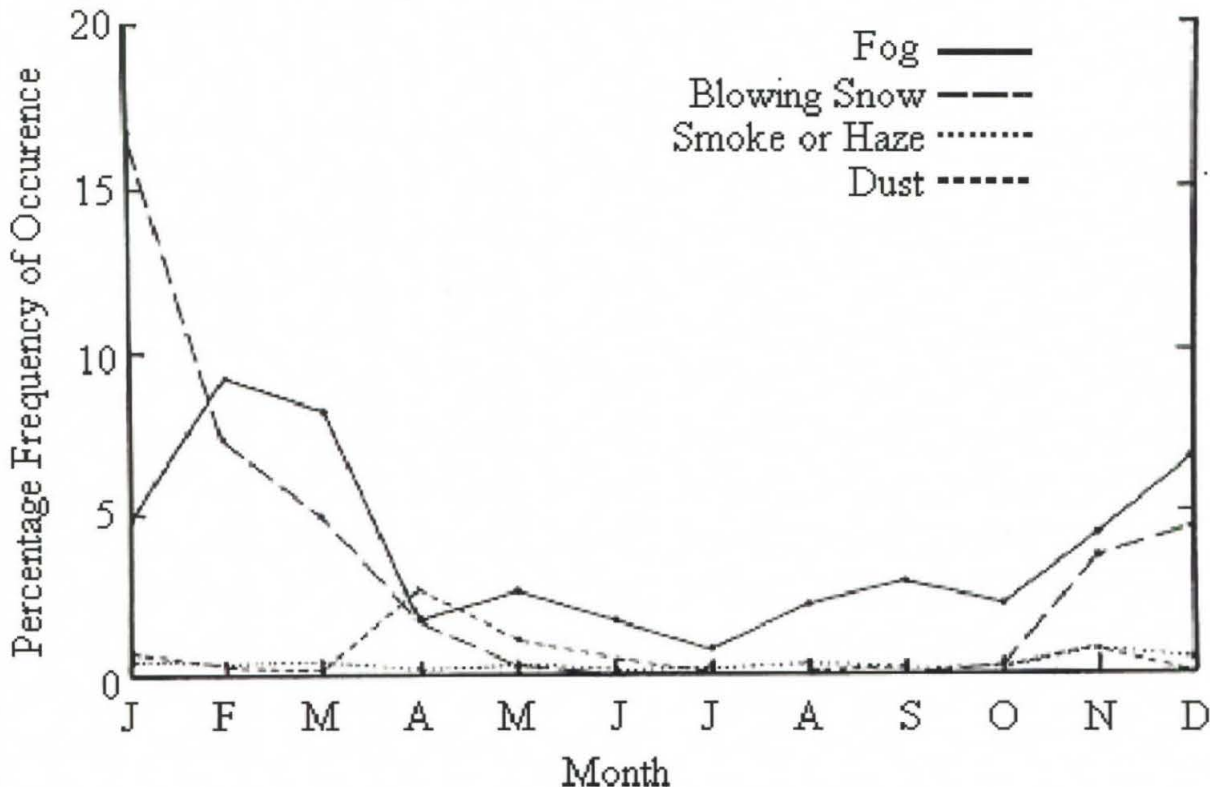


Table D: Average number of days by month and for year when fog reduces visibilities to 1/4-mile or less.

Location	P ¹	J	F	M	A	M	J	J	A	S	O	N	D	Yr.
Fargo	28	1	2	2	1	*	*	1	1	1	1	1	2	13

table d

wind speed/wind direction...

The average wind speed in North Dakota is greatest in late winter and early spring and least in summer (Table C). Average wind speeds in the Red River Valley are 10 to 20 percent higher than in the rest of the state. Fargo's average annual wind speed is 12.2

The fastest wind speed clocked over a one-minute period at the four National Weather Service Stations in the state was 115 miles per hour. This wind speed, which greatly exceeds the threshold value of 75 miles per hour for hurricanes, was recorded when a powerful thunderstorm struck Fargo during midafternoon on June 9, 1959. The next strongest wind speed of 88 mph was also recorded at Fargo on September 1, 1960, when a line of thunderstorms moved through the city. With the exception of these two instances at Fargo, the fastest wind speeds registered over a one-minute period were about the same in winter as in summer. This indicates that winter cold fronts and low pressure systems can produce winds of about the same speed as those associated with summer thunderstorms. In addition, high winds in winter can be sustained over a period of several hours, and in rare cases two to three days, while in summer the duration of the strong winds is usually on the order of a few minutes.

In Figure 2, wind roses show the percentage of time that the winds blow from different compass points at Fargo. The five wind roses for each station cover the four seasons and an annual composite. On an annual basis, the prevailing wind flow at Fargo shows strong incoming north and north-northwest flow and a strong south and south-southeast return flow. Wind from an easterly or southwesterly direction occurs much less frequently than from other directions. The seasonal wind roses for January, April, July and October are similar to the annual wind roses (Figure 2). Seasonal wind roses differ from the annual wind rose nearly always because the wind so often changes direction, rather than a change in the prevailing wind pattern.



figure 2

Month	Fargo		
	Mean Speed	Prevailing direction	Fastest Mile
January	13.2	SSE	62
February	13.0	N	56
March	13.6	N	56
April	14.9	N	68
May	13.8	N	72
June	12.2	SSE	115
July	10.9	S	60
August	11.4	SSE	71
September	12.5	SSE	88
October	13.1	SSE	57
November	13.7	S	66
December	12.8	S	58
Year	12.9	N	115
Yrs. of record	28	14	29

Table C: Average wind speed and prevailing directions and the extreme mile of wind for Fargo.

site analysis...

sun path/shading..

North Dakota receives a fairly high percentage of possible sunlight, however, Fargo itself only have an average of 88 days out of the year that are classified as clear. The highest altitude of the sun in June is 68.35 degrees, when the sun rises at 5:17 am and sets at 9:02 pm. The highest altitude in December is 21.55 degrees when the sun rises at 7:39 am and sets at 4:32 pm. The average percentage of sun, in Case Country, in June through September is between 60% and 70%, it is near 40% in November and December. For the remaining months it varies between 50% and 60%.

The day with the shortest amount of daylight occurs on December 21st with only 8.5 hours of sunlight and the longest amount of daylight occurs on June 21st when there is roughly 16 hours. The sun's path through the sky in Fargo at the summer equinox starts and ends at 55° east and west of north (the azimuth) and rises to an angle of 68° above the horizon (the altitude). During the winter solstice the sun starts and ends at 125° east and west of north and only rises to an altitude of 20° above the horizon.

site analysis...

slope and climate...

A 10% slope to the south receives as much direct radiation as flat land 6 degrees closer to the equator. In midsummer, a northwest facing wall will be warmer than a south wall because of the angle at which the sun's rays strike the wall.

demographics...

Fargo:

Population:	90,599	
Male:	45,306	50%
Female:	45,293	50%
Median Age:	30.1	
5 and Under	5,763	
18 and Over	71,463	
65 and Over	9,102	
Race:		
White:	85,321	94.2%
Black:	922	1%
American Indian:	1,119	1.2%
Asian:	1,482	1.6%
Hispanic:	1,167	1.3%
Households:		
Average size:	2.2	
Total Available Housing:	41,277 units	
Owner Occupied:	18,508	
Renter Occupied:	20,760	
Vacant:	1,932	
Social Status:		
Population 25 and Over:	54,319	
High School Grad or Higher	49,440	
Bachelor's Degree or Higher	18,693	

topography and air movement...

The topography of North Dakota produces important variations in the temperature and precipitation patterns across the state. Topography affects temperature patterns because air temperature usually decreases with elevation at the rate of 2° to 4° F per 1,000 feet. Air in the lower portion of the atmosphere warms at a rate up to 6° F per 1,000 feet in descending a slope. As will be shown later, temperature variations over the state are largely a mirror-image of its general topography.

A review of the precipitation process is helpful in understanding how topography affects precipitation. For precipitation to occur, moist air in the lower layers of the atmosphere must be lifted to higher elevations where it is cooled by expansion due to lower pressures aloft. During the cooling process, moisture in the air may condense to form water droplets or ice crystals. If the lifting process continues, the water droplets or ice crystals may increase in size and eventually precipitate in the form of rain, hail or snow. The lifting process is favored and takes place most easily when the air mass temperature decreases rapidly with height. In this situation, meteorologists say that the air mass is unstable.

Additional instability results because considerable heat is released in the condensation process. Heating from condensation within a rising cloud causes the air to become lighter and more buoyant than the surrounding air. This, in turn, causes the cloud to expand rapidly within the colder and denser environmental air. The rising air produces a chimney effect which feeds additional moist air into the system from below and sustains the process.

Topography can increase precipitation by providing the lift needed to start the process. This occurs when moist air flows uphill and the upper layers of moist air reach condensation level. When moisture in the lower layers is plentiful and the air aloft is very cold and unstable, a lifting of only a few hundred feet may be enough to start the precipitation process. On the other hand, moving air downhill inhibits the precipitation process. Topography may also affect the precipitation process in other ways. Convection can be enhanced over higher terrain due to large temperature contrasts during strong daytime heating of the highlands. Furthermore, evaporation loss is less because rain drops fall a shorter distance from clouds over higher ground.

noise...

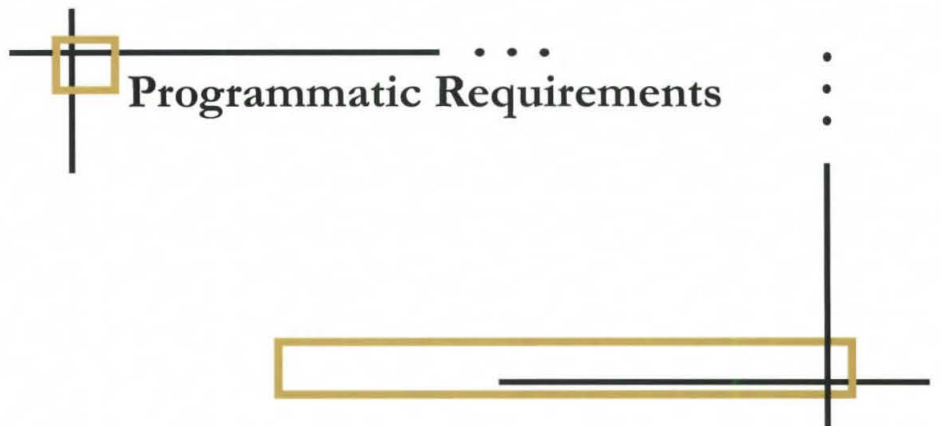
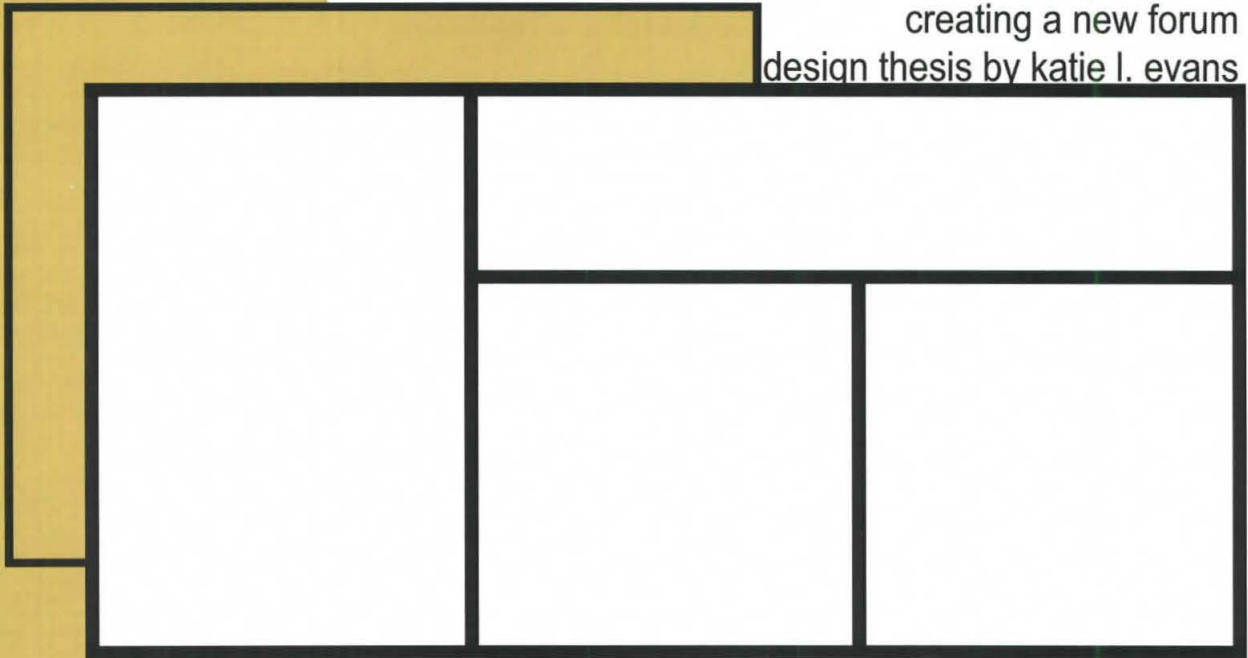
Noise heard from the site is due to three factors:

1. Traffic along 7th street, and 6th avenue south.
2. Island Park: tennis courts, etc.
3. Hawthorn School: children playing outdoors.

rumination on a post humanist forum

creating a new forum

design thesis by katie l. evans



Area Summary

<i>Space Description:</i>	<i>Qty:</i>	<i>Area NSF:</i>	<i>Total Area:</i>
<i>Knowledge</i>			<i>13,280</i>
<i>Reflection</i>			<i>13,280</i>
<i>Exchange</i>			<i>13,280</i>
<i>Support/ Operations</i>			<u><i>4,320</i></u>
<i>Total</i>			<i>44,160</i>
<i>General Circulation</i>	<i>10%</i>		<i>4,416</i>
<i>Mechanical/ Electrical</i>	<i>8%</i>		<u><i>3,532</i></u>
<i>Total Usable Area</i>			<i>52,108</i>
<i>Walls/ Columns, Etc.</i>	<i>8%</i>		<u><i>4,168</i></u>
<i>Total Gross</i>			<i>56,276</i>
<i>Net to Gross Ratio</i>			<i>78.5%</i>

Knowledge:

<i>Space Description:</i>	<i>Qty:</i>	<i>Area NSF:</i>	<i>Total Area:</i>
Cybermax			
Cybermax Theater	1	4,800	4,800
Theater Tech. Support	1	1,040	1,040
Cybermax Preparation	1	680	<u>680</u>
Total			6,520
Education and Resource Areas			
Children's Area	1	960	960
Education Curator Office	1	160	160
Asst. Education Curator Office	1	120	120
Special Studio	2	360	720
Teaching Studio	2	320	<u>640</u>
Total			2,600
Technology Center			
Multimedia Library	1	320	320
Resource Terminals	4	200	800
Technology Training Rooms	6	120	<u>720</u>
Total			2,800
Total:			13,280

space allocations...

cybermax...

A Cybermax theater/gallery is intended for presentations and/or interactive installations. The Cybermax Theater is designed as an IMAX type facility. Its function would serve for entertainment, as well as, education. This area would provide for a large number of people to experience the effects of a virtual environment. This space would require a screen and staging area for presentations. Controlled artificial lighting and natural lighting are essential for the Cybermax Theater. Seating should not be fixed, therefore, it will not limit its ability for more than one arrangement. It should be possible to remove some or all of the seating for different media presentations. The Cybermax preparation area must be adjacent to the Cybermax Theater and have access to the outside. This space will foster different activities, such as assembly and setup for installations in the Cybermax. Some storage and workspace is required in this space.

education and resource areas...

The children's area should be colorful and inviting in nature especially for children, and should utilize natural lighting as the design allows. A children's communication experience area will provide children with an introduction to the possibilities of communications today and the future beyond. The space requires a flexible open plan for easy adaptation of new technologies. The multimedia library requires the most flexibility in its construction. As communication and electronic needs change this space must be able to change with it. The education curator office and assistant education curator should be located near the research terminals. The special studio will offer the opportunity for in-dept investigations into various technologies. This area should be located near the other teaching studios but should maintain its own identity. Both natural and incandescent lighting should be utilized in this area. And as with the teaching studios flexibility is encouraged. The teaching studios should each be open spaces allowing for adjustable arrangements. Natural and incandescent lighting should both be utilized in these areas. The studios may or may not be directly connected but should remain close in proximity to each other. Also the interpretive center goes should be invited to explore these spaces.

technology center...

The multimedia library, special studios, and children's communication experience area are an integral part of the visitors' experience. The children's area should be located near the front door as an introduction to expectations beyond. The interpretive center goes should be aware and invited to explore the teaching studios and technology center. Both of which should be located near the galleries. An open plan would be most conducive to featuring education as a key component in the fabric of the complete interpretive center. The plan, by its very nature, should set up a dialogue between exhibiting and the process of making. The interactive center for information technologies requires many research terminals. These areas would be available for the investigation and research of the many subjects accessible by electronic medium. Each terminal would vary with its capability but each would maintain the ability to connect into the internet or network into other applications as minimal examples. The terminals themselves should not be fixed but should remain flexible for alterations. The lighting within this area should be controllable. Access to this area should be allowed for later hours into the night.

Reflection:

Space Description:	Qty:	Area NSF:	Total Area:
Reflection Areas			
Living Room	2	320	640
Reading Room	2	480	960
Reflection area	1	600	<u>600</u>
Total			2,200
Gallery/Exhibition Areas			
Changing Gallery	1	960	960
Circulation Gallery	1	1,480	1,480
Permanent Gallery	1	1,800	1,800
Special Exhibits	3	600	1,800
Tech. Gallery	1	1,800	<u>1,800</u>
Total			7,840
Exhibit Support Areas			
Curator's Office	1	160	160
Curator's Assistant Office	1	80	80
Exhibit Preparation	1	320	320
Exhibit Shop	1	280	280
Paint Booth	1	80	80
Registrar's Office	1	120	<u>120</u>
Total			1,040
Collections Care Areas			
Cold Storage	1	200	200
Communications Storage	1	400	400
General Exhibit Storage	1	1,600	<u>1,600</u>
Total			2,200
Total:			13,280

space allocations...

reading rooms...

Reading rooms should be isolated from active public spaces, to allow for quiet reflection. Each space should reflect the intimate feel of a "living room."

gallery/exhibition areas...

The galleries should reflect the underlying metaphor of space without barriers. Therefore, the plan should incorporate a free span columnless vessel through which allows for total flexibility of exhibit installation and provides a neutral backdrop for the exhibits. The permanent gallery is the area in which longer-term installations could be contained. Both natural light and overhead lighting will be utilized as structural or other limitations allow. Flexibility is of great importance-both for exhibit arrangement and electrical services for their installation. Gallery for permanent collections and rotating shows should be more intimate in scale for interactive installations. The special exhibits are smaller exhibits that should be located throughout the center. They may be clustered in some areas. These installation spaces should be flexible, because they will be frequently changed, modified, and replaced and therefore electrical and other services must be able to facilitate these changes. Artificial lighting will probably provide the best qualities for these installations especially those that are interactive. There should also be adequate gallery space for installations of more experimental work; these spaces will need to be open and flexible with a larger scale which could be manipulated to respond to various types of installation.

exhibit support areas...

Whenever possible all offices should have exposure to natural day lighting and exterior views. The curator office should be in close proximity to the registrar's office and the assistant curator of exhibit office. Temporary storage, shelving, and an area for a computer and communications should also be provided. The registrar's office should be located near the entrance and close to the curator office. The exhibit preparation area requires direct access to the exhibit shop and paint booth and an elevator. Natural lighting would benefit the space as well. The exhibit preparation area should be mostly one room with some storage. The exhibit shop requires direct access to the loading dock and should be adjacent to the exhibit preparation area, as well as, the paint booth. The passage to the exhibit preparation should be large enough to move large installations through it. In addition, this space should have a workbench and possibly a small toilet room. The paint booth should be an isolated area for the application of vaporous materials such as paint, varnish, etc. It should be located with direct access to both the exhibit preparation area and the exhibit shop. These passages should also be large enough for moving larger materials through it. Overhead lighting should be utilized in this area with some moveable lateral lighting. The assistant curator of exhibit office should be in close proximity to the registrar's office and the curator office. Temporary storage, shelving, and an area for a computer and other communications should also be provided.

collections care areas...

In the collections care area, does not need public service and should be secured. These areas are for the archival of older exhibits; therefore, there must be space for communications storage, general exhibit storage, and cold storage. As with all the collections care area, these spaces should be designed to be within an environmental envelope to assure there preservation.

Exchange:

Space Description:	Qty:	Area NSF:	Total Area:
Multi-Purpose Areas			
Auditorium	1	800	800
Class Rooms	2	200	400
Conference Room	1	280	280
Orientation	1	800	800
Projection/Sound Booth & Storage	1	160	160
Performing Arts Space	2	400	<u>800</u>
Total			3,560
Retail/Gift Shop			
Store	1	560	560
Store Office	1	160	160
Store Storage	1	240	<u>240</u>
Total			960
Cafe			
Dining Room	1	1,600	1,600
Kitchen	1	720	720
Kitchen Office	1	136	136
Catering Storage	1	200	200
Food Storage	1	200	200
Service Break Room	1	200	200
Service Line	1	350	<u>350</u>
Total			3,376
Public Services			
Coat Room/Lockers/Telephone	1	360	360
Entry Vestibules	1	424	424
Open Spaces	3	varies	3,480
Stairs	1	1,440	<u>1,440</u>
Total			5,704
Total:			13,280

space allocations...

multi-purpose areas...

The orientation room serves as a gathering area. It should be located near the entrance and should contain visible displays within it. A projection booth should be provided for large presentations or installations. It should be near the orientation room. This space should also contain a storage room for miscellaneous materials. This room should be near the orientation room.

retail...

The interpretive center store provides small items such as clothing, souvenirs, and some food items. The store should have exterior views and natural lighting. Space for a counter and register also required. A store office and processing area administer the interpretive center store. It should be adjacent or within the store itself. The store storage area stores extra sale items and other supplies needed for the interpretive center store. This space should be directly accessed from the store and secured.

cafe...

A dining room for patrons of the interpretive center's restaurant should have natural lighting and exterior views of the downtown area. Seating will be primarily of chairs by a table with possibly some booth seats. This area should be near the kitchen and service lines. The kitchen requires access to the food storage, catering storage, service line, the kitchen office, and the dining room. The kitchen needs a sink, washing area, grill, hot plate, preparation table, and an appliance table. The kitchen office facilitates the needs of the kitchen. It should be directly accessible to the kitchen, food storage, and catering storage. In addition the office should have a desk and file storage. A food storage area is used by the kitchen for the storage of its food. It should have shelf space and cold storage space. The catering storage area could be combined with the main food storage. Separation of food items should be maintained. A service line is used for cafeteria type servicing. The service line should be near the kitchen for easy access to patrons. A long counter area should be provided to assist service of food.

public services...

A cloak room should be located near the entrance. This area could be a small room with a coat rod and hangers. The men's public toilet requires two stalls, two urinals, four sinks, a large mirror, and an air dryer. This toilet room should meet all ADA requirements. The women's public toilet requires four stalls, four sinks, a large mirror, and an air dryer. This toilet room should meet all ADA requirements. The multipurpose hall requires ultimate flexibility. This space should be able to be combined with the orientation for special presentations and installations.

Program and Administrative Support/ Operations

Space Description:	Qty:	Area NSF:	Total Area:
Reception & Offices			
Accounting Office	2	80	160
Accounting Storage	1	640	640
Business Administration Office	1	120	120
Director's Office	1	208	208
Director's Assistant Office	1	80	80
Development Office	1	120	120
Development Assistant Office	1	80	80
Public Information Office	1	120	120
Reception Area	1	160	160
Special Resources	1	120	120
Special Resources Assistant	1	80	<u>80</u>
Total			1,888
Staff Areas			
Staff Work Room	1	296	296
Staff Lounge	1	320	320
Staff Toilets	2	120	<u>240</u>
Total			856
Maintenance Areas			
Custodial Storage	1	160	160
Equipment Storage	1	160	160
Exhibit Furniture/Crate Storage	1	280	280
Grounds Maintenance Equipment	1	160	160
Maintenance Shops	1	160	160
Restroom	1	60	60
Security Office and Equipment	1	80	80
Shipping/Receiving	1	480	<u>480</u>
Total			1,576
Total:			4,320

space allocations...

reception & offices...

Whenever possible all offices should be exposed to natural day lighting. The accounting office should be located near the development area and should have access to the storage areas. Likewise, the business administration should be an extension to the accounting area. The director's office should be near the secretary/reception area and should have ample space to comfortably seat up to four people. Development area is the department that organizes events and/or exhibitions. It should be located near both the director's office and the accounting offices. The public information office should be near the main entry and visible/accessible to all visitors. It will contain a counter for which visitors can ask questions. Likewise the Secretary/reception area should be located near the main entry, as well as, accessible to all other administrative areas. The special resource department will handle the multi-media presentations and exhibitions.

staff areas...

All staff areas should be accessible to each other, and whenever possible should be exposed to natural day lighting. There should be a work room for large staff meetings, and this room should be relatively isolated. The room should seat at a minimum of 12 persons and should have adjustable lighting and multi-media equipment. Likewise, a staff lounge and toilet should be available for staff breaks and lounging. A small kitchen and table area should be included as well as comfortable seating.

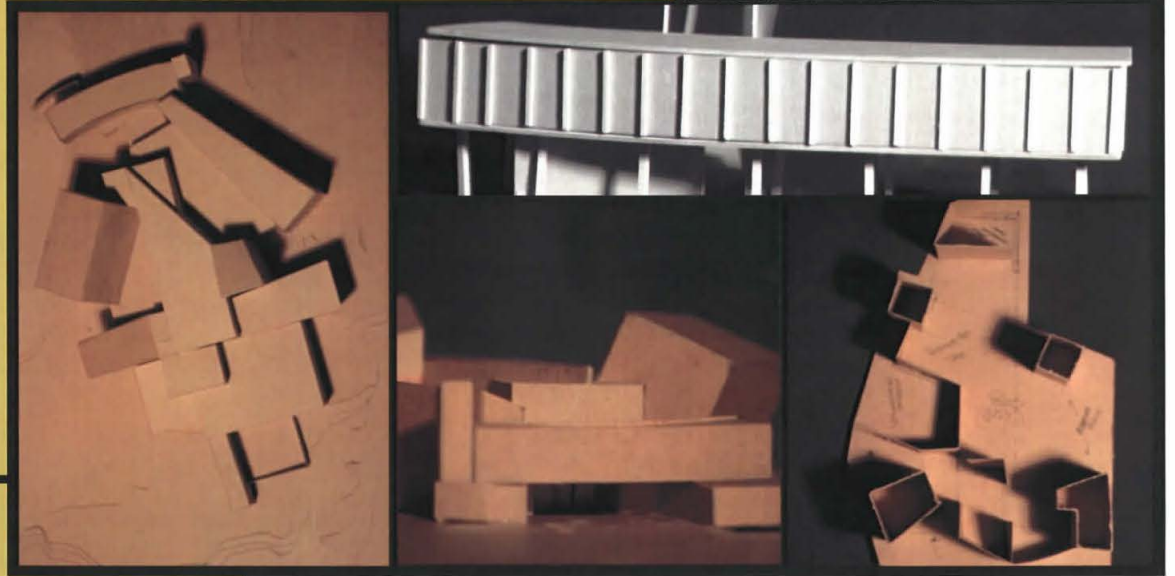
maintenance areas...

Custodial storage should be provided throughout the building. A grounds maintenance equipment area should be adjacent to the shipping/receiving area for easy access to the outside. The maintenance shop, equipment storage, and exhibit storage should be adjacent to each other. Passages should be large enough for moving large exhibits through the presentation areas. A security office and equipment room will provide protection within the center, and will house video monitors and other equipment. The shipping/receiving area should have a loading dock and access to the alley to the east. It should be large enough to accept large shipments. This space should be remote from the public entrance.

rumination on a post humanist forum

creating a new forum

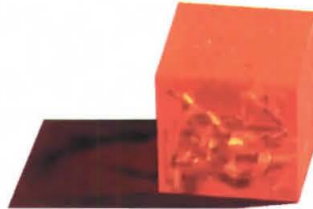
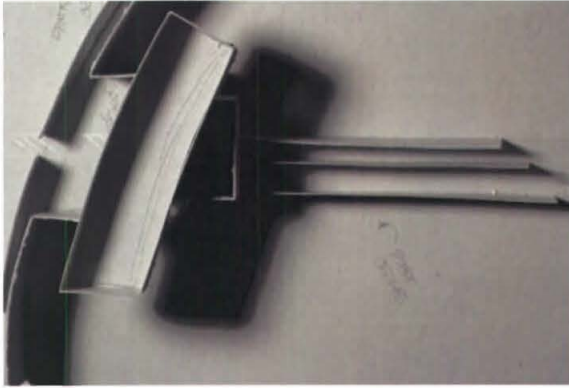
design thesis by katie l. evans



□ ————— ...
Design Process



Stage 1: Intital metaphor & spacial layouts



Parti: sculptural representation of the design metaphor which served as the design compass grounding the project. Analogy of a net or web; the dweller should become so captivated by the path that they are unaware that they have been caught in a virtual realm.



design process...

Metaphor

Analogy of the internet manifested physically
Reality is contingent upon perception; the truth lies in how you ground it.

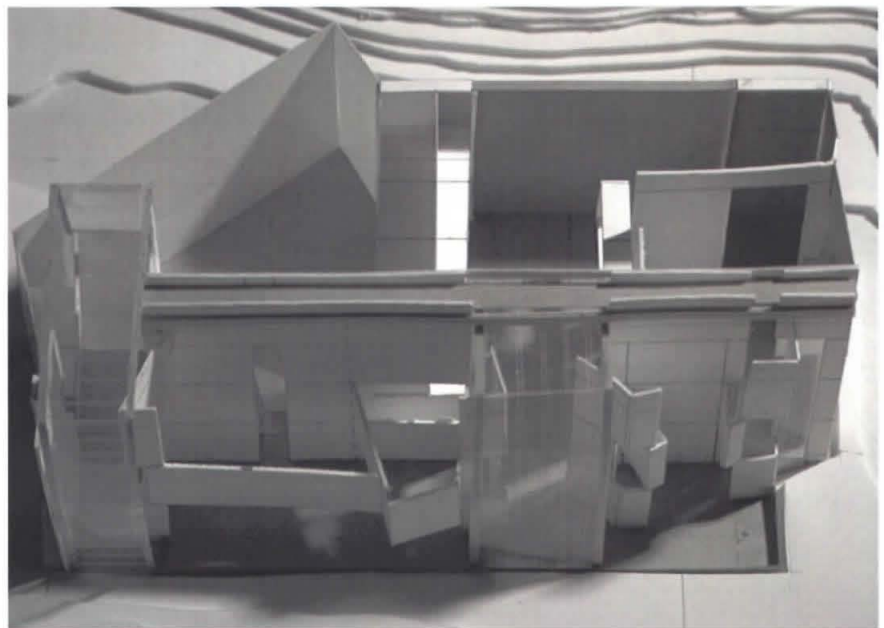
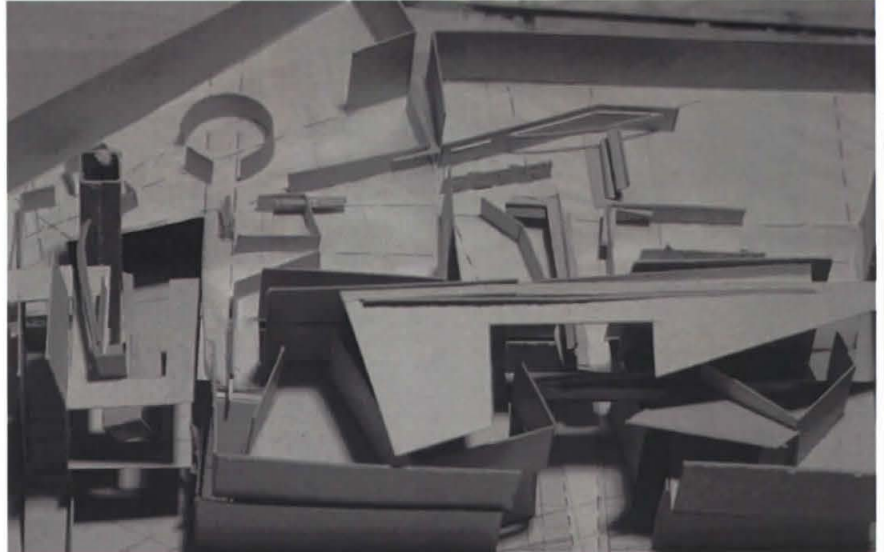
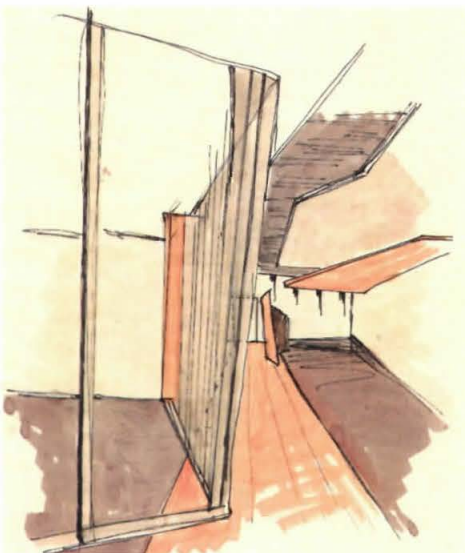
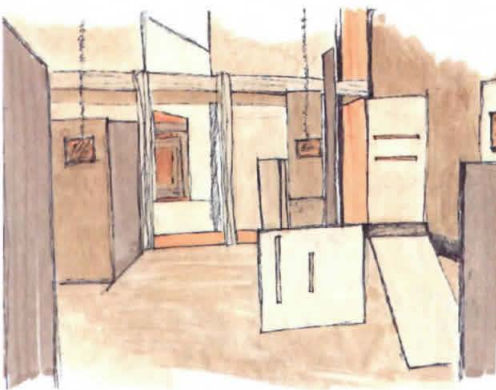
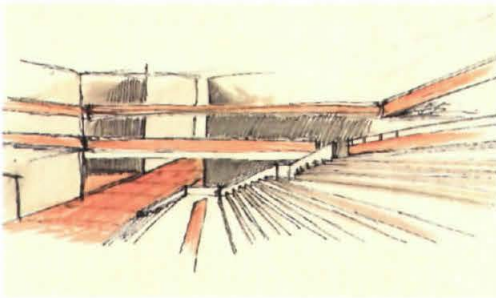
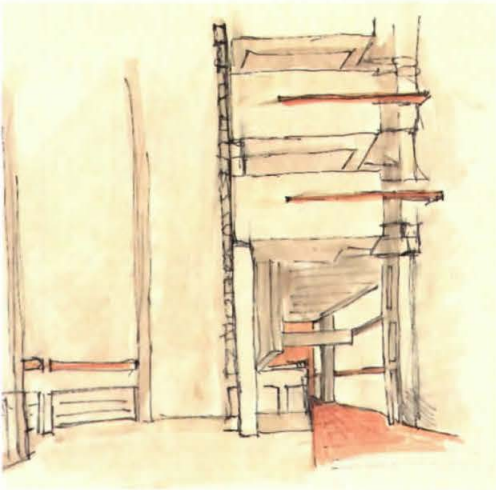
A design that filters mass information into the realm of the tangible. A design that pulls people in because the internet separates them.

This new forum above all else is a place designed for the experiential, in order for this new building typology to be successful I had to explore the boundaries of conceptual verse contextual space, and the human body verse physical perception. Basically, the design has to explore the continuum between the conceptual and perceptual aspects of being.

To begin: the internet consists of a web of networks all connected, all designed to lead you down the path to gained information. The conceptual underpinning that drove the design of my thesis was the idea that information is the vehicle through which the dweller can gain knowledge. By allowing the path to lead the design I was able to use the building as a vessel. One that strives to connect the dweller to knowledge as well as provide a place that encourages social interaction on all levels.

Web- traps and holds information, invisible, beautiful in both its structure and in its simplicity. By its very nature it is designed to captivate and lure you in.

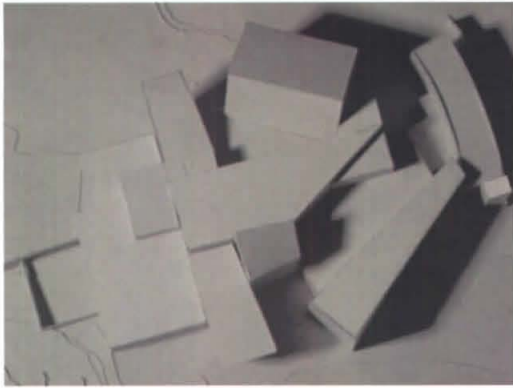
Stage 2: Initial interior sketches & massing layouts



The path:

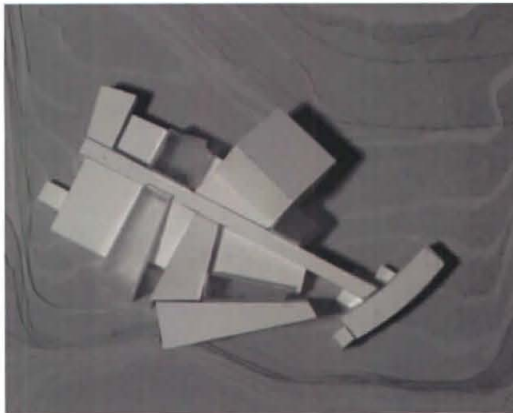
The path is inherent throughout the building, once the dweller enters one of the three areas of applied learning (knowledge, reflection, exchange) the path reinforces the idea of continuity. The dweller knows he/she is on the chosen path by a reiteration of the datum. The datum in the project serves as a reference point at eye level to guide the dweller through the building. A break down of the path: within the realm of knowledge: the dweller experiences the force of the path. Elements in the design require a change in movement; they create obstructions the dweller must address in order to continue along the path. Within the realm of reflection: the dweller experiences the serenity of the path. Elements in the design create intimate spaces that provide a place of rest and relaxation, allowing the dweller to process what has been gained. Within the realm of exchange: the dweller experiences the passing through or transference of different paths. This area is left open and free of all barriers allowing the dweller to in essence brush past and connect with all others occupying the space.

Stage 3: Exterior design development & mass modeling

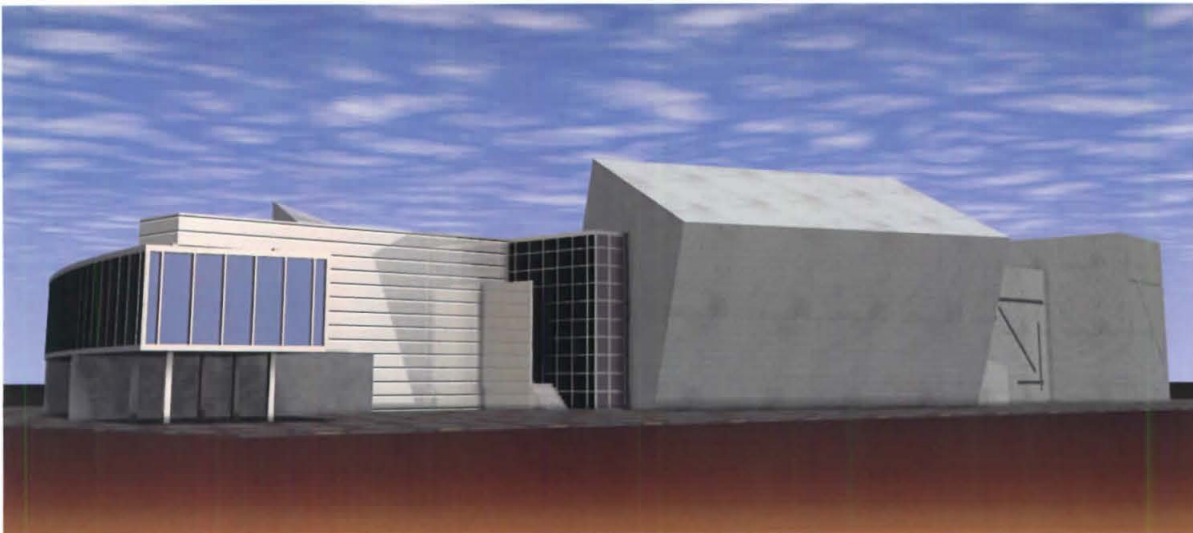


Thesis Conceptual Consideration:

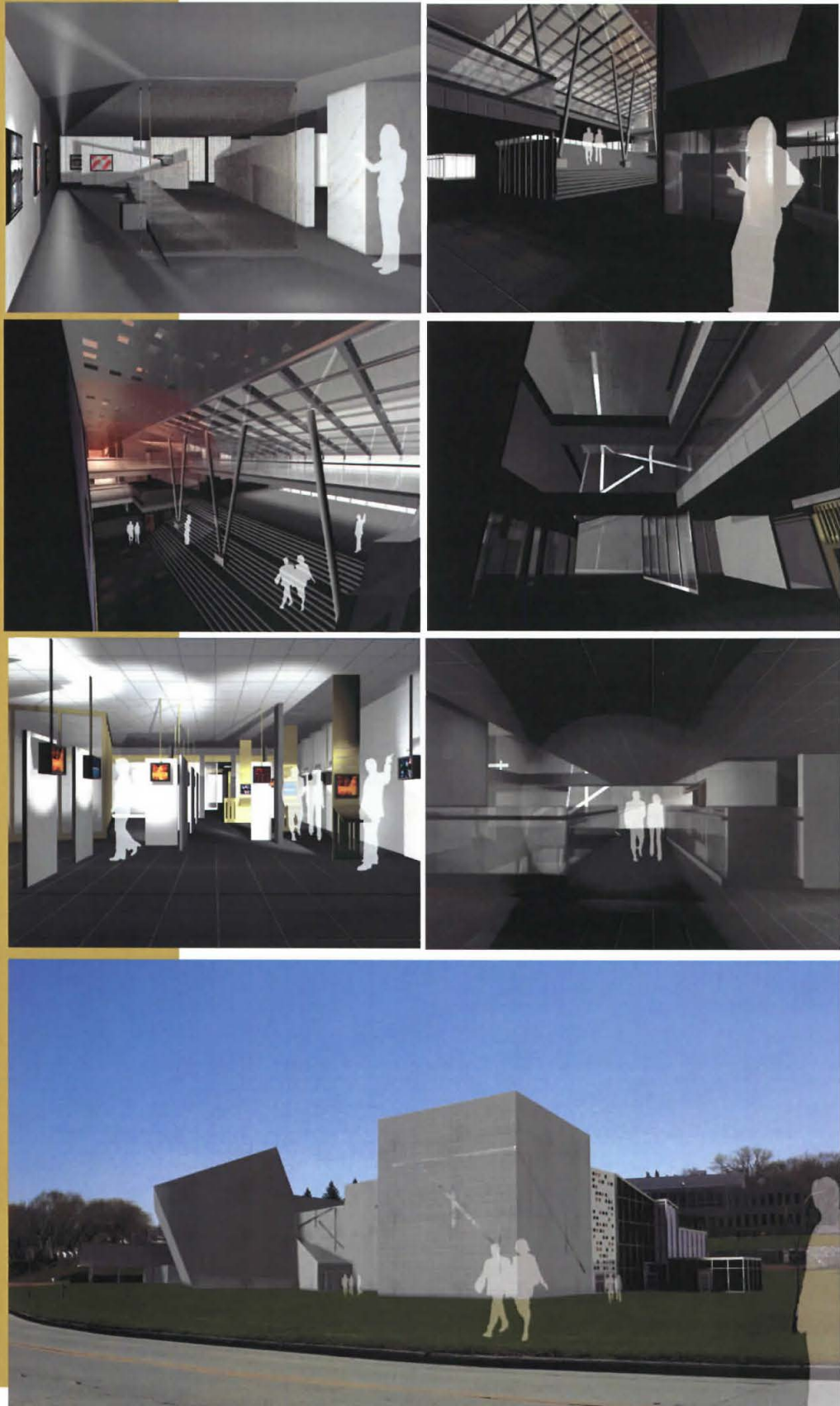
Posthumanism proposes that there is no compelling reason to accept things as they are. That in itself is the fundamental idea for this thesis project.



While 'library' may still remain very much based on a valid typology, a facility for the storage of physical information, is no longer sufficient to deal with the special needs brought to light by the questioning of modern-day communication. This is not to say that the library won't have a role in modern society. Rather, that the library will split, this division becoming the genesis of a new forum, an interactive forum for the exploration of ideas. If we are to question the role of architecture, these new needs present specific problems never before encountered. I am proposing an exploration of a new typology; a typology for the modern day communication of information. One that promises the opportunity to dwell, engage, think, and communicate.



Stage 4: Interior design development & digital design refinement

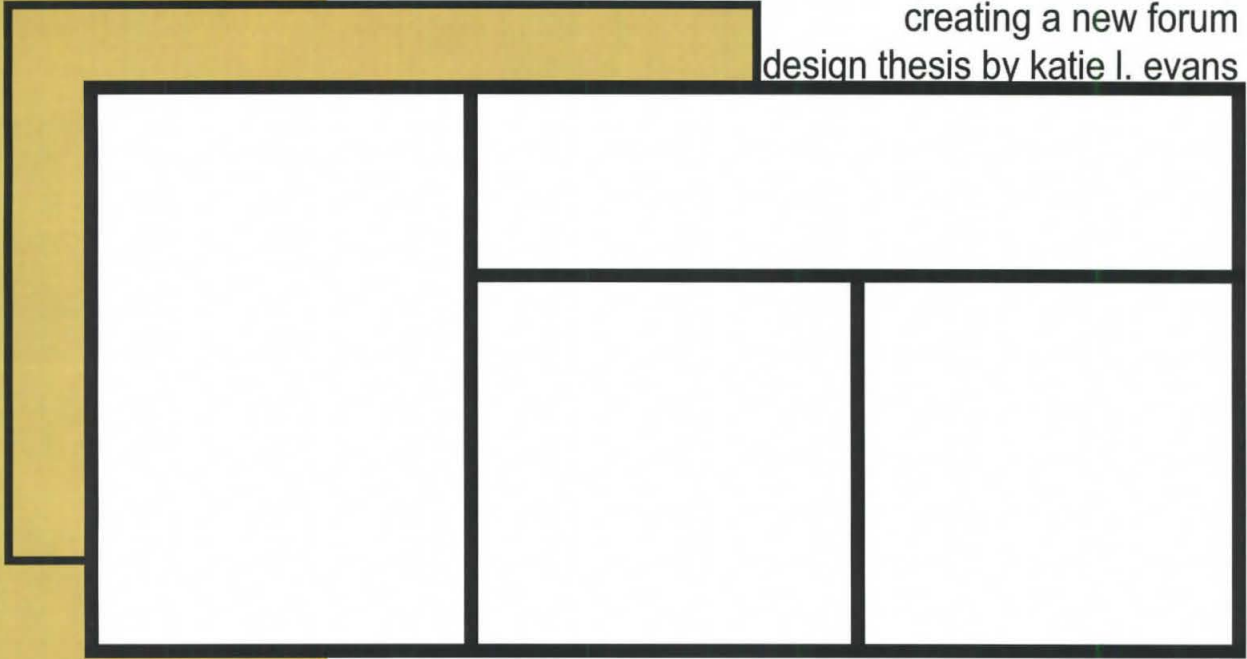


design process...

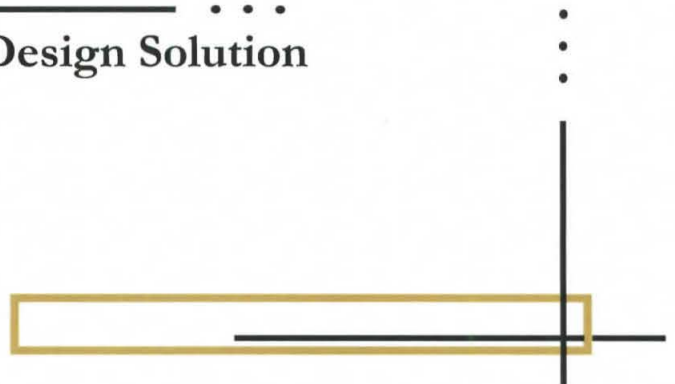
rumination on a post humanist forum

creating a new forum

design thesis by katie l. evans



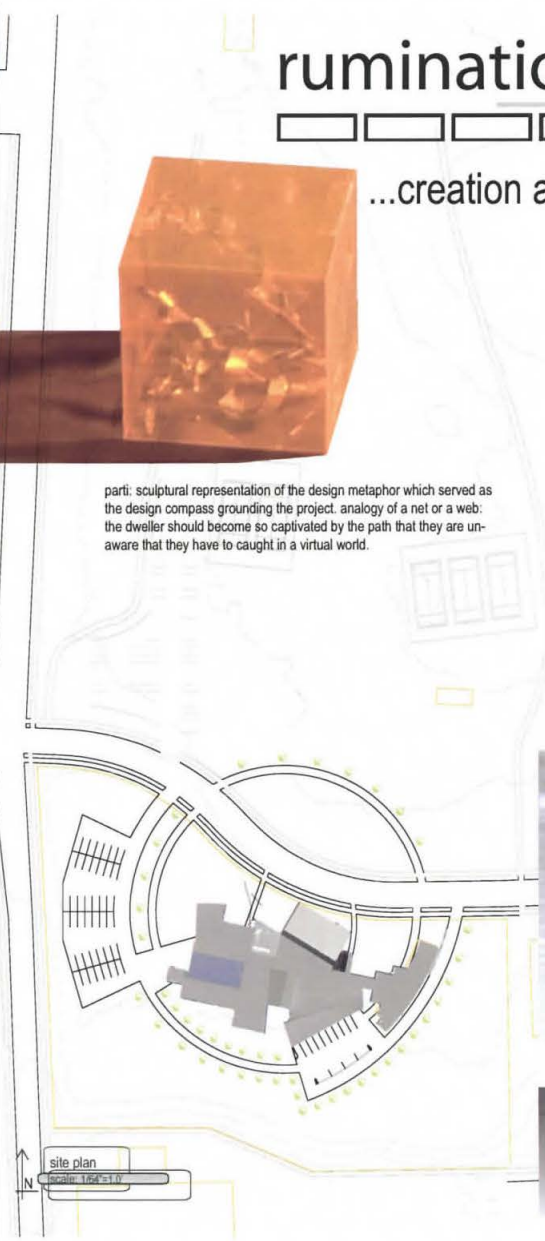
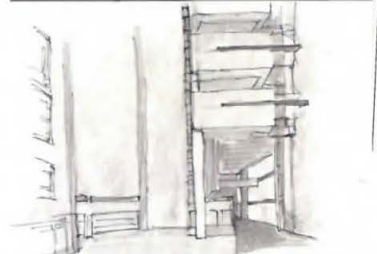
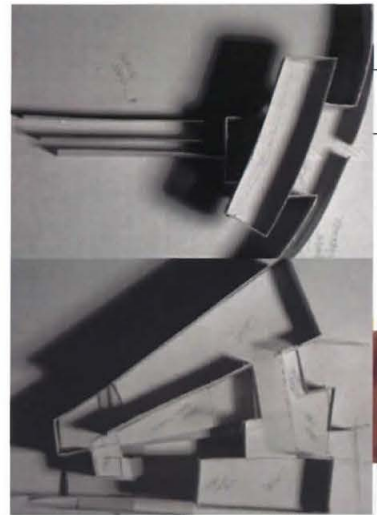
— □ — ...
Final Design Solution



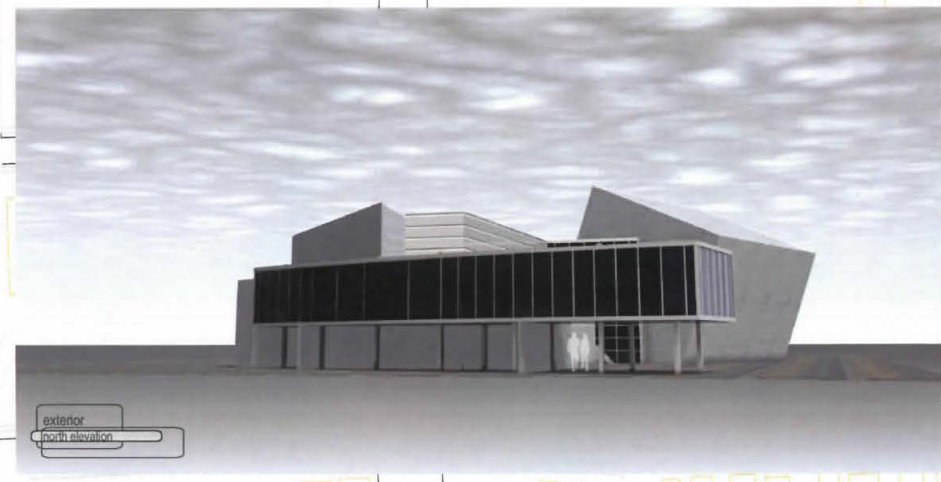
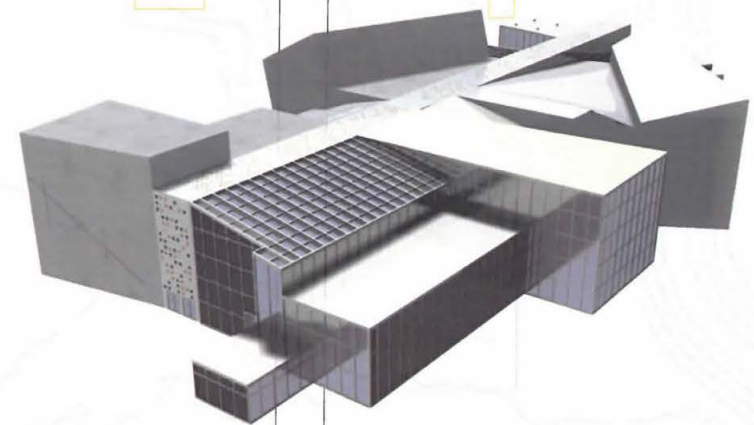
rumination on a post humanist forum

undergraduate design thesis by katie l. evans

...creation a new forum for the 21st century for fargo, north dakota



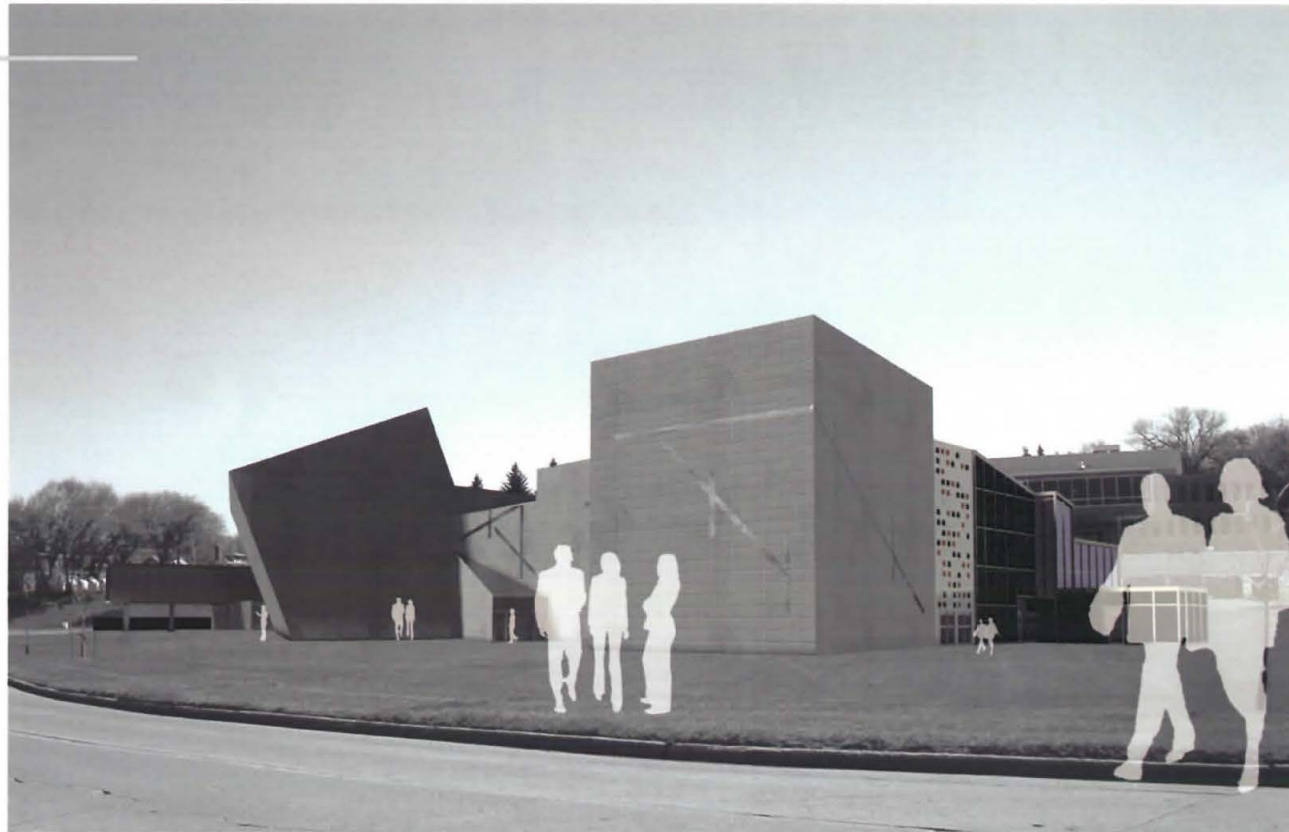
parti: sculptural representation of the design metaphor which served as the design compass grounding the project. analogy of a net or a web: the dweller should become so captivated by the path that they are unaware that they have to caught in a virtual world.



site plan
scale: 1/8"=1'-0"

exterior
north elevation

final board layout a...



analogy of the internet manifested physically...

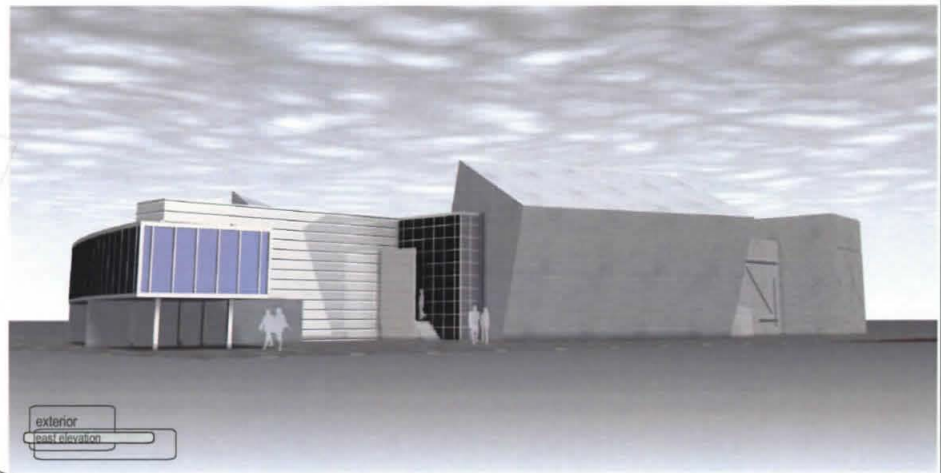
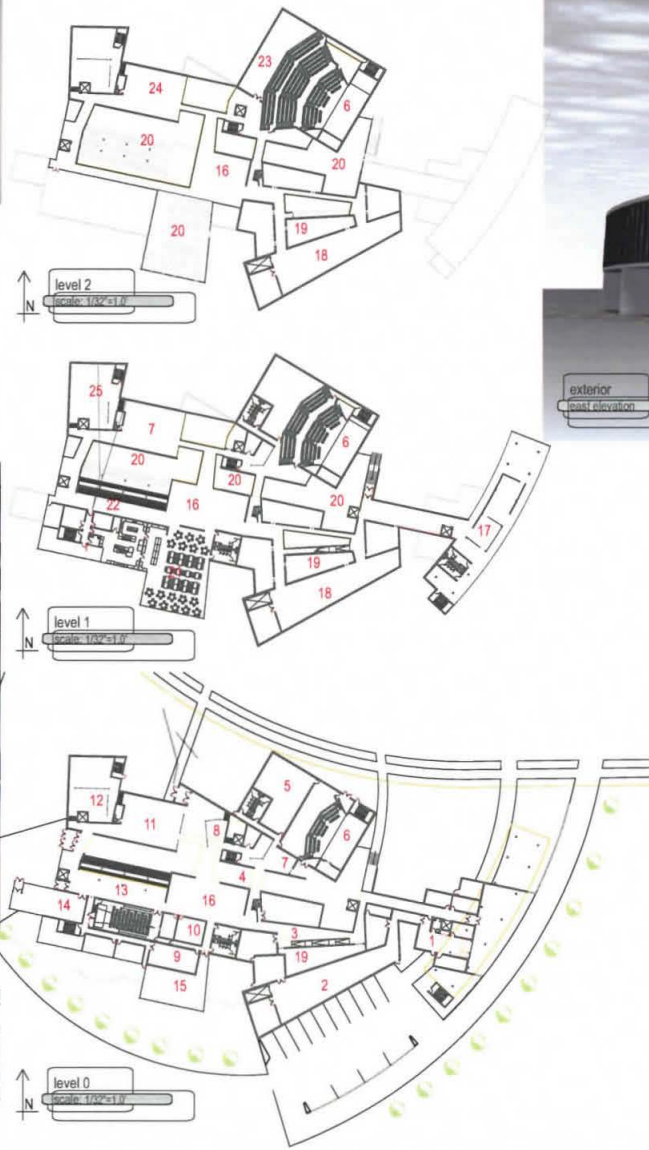
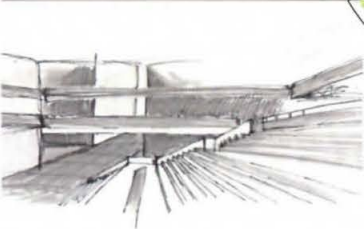
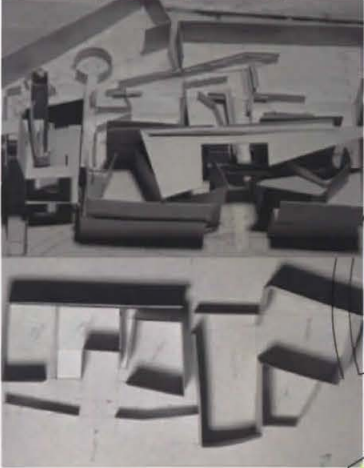
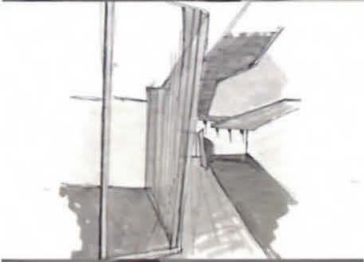
the underlying idea is to create strong architecture that is relayed by the transference from architectural theory to practice. with the incorporation of technology into the design, it is possible for architects to transcend the human plane and invoke a transformation into the realm of 'virtual space.' design is not merely a process, but a coevolution of efforts and events in various places and times. today, many of our spaces are defined by their limitations, and that life is one constantly consisted of boundaries. as a society all too often we create borders to define our communities, in de-

fense of our spaces, and for protection. what we need to understand is that these borders also limit human experience and chances for social interaction. the new typology that i am proposing seeks to provide instantaneous communication, not bound by physical location. therefore it will open up new ways of operating and sharing knowledge within the public realm, and will encourage social interaction on another level. this can be made possible by taking a post humanist approach to design. at its core post humanism proposes that there is no compelling reason to accept

things as they are. that in it self was the driving force for this thesis project. by accepting only the historical based typologies, it doesn't leave room for change or improvement. which is how i derived at my theoretical premise: the examination of what it means to store and access information in the library of today and in the future. i think it is important to point out that within the context of this design thesis, knowledge is a human process, an interpretive act that comes through experience, whereas, information is the act of communicating, that comes through the form of a

message from a sender to a receiver. this building typology seeks to respond to the changing physical nature of information and the manner in which that information is communicated. at the same time, this new typology seeks to guarantee those democratic philosophies that were in the original impetus of the public library, and ensure that we maintain the 'touch' of our human-being need to dwell.

reality is contingent upon perception... the truth lies in how you ground it.



exterior
east elevation

floor plans
scale: 1/32"=1'-0"
drawing number: 1001

1. shipping & receiving
2. exhibit preparation & storage
3. exhibit halls
4. circulation core
5. mechanical room
6. i-max theater and preparation
7. resource terminals
8. technology training rooms
9. conference & class rooms
10. auditorium
11. multimedia lab
12. teaching studios
13. orientation
14. gift shop
15. performing arts space
16. exchange center
17. reception & offices
18. main gallery
19. reflection center
20. open to below
21. cafe
22. stair exchange
23. technology support
24. technology center
25. children area

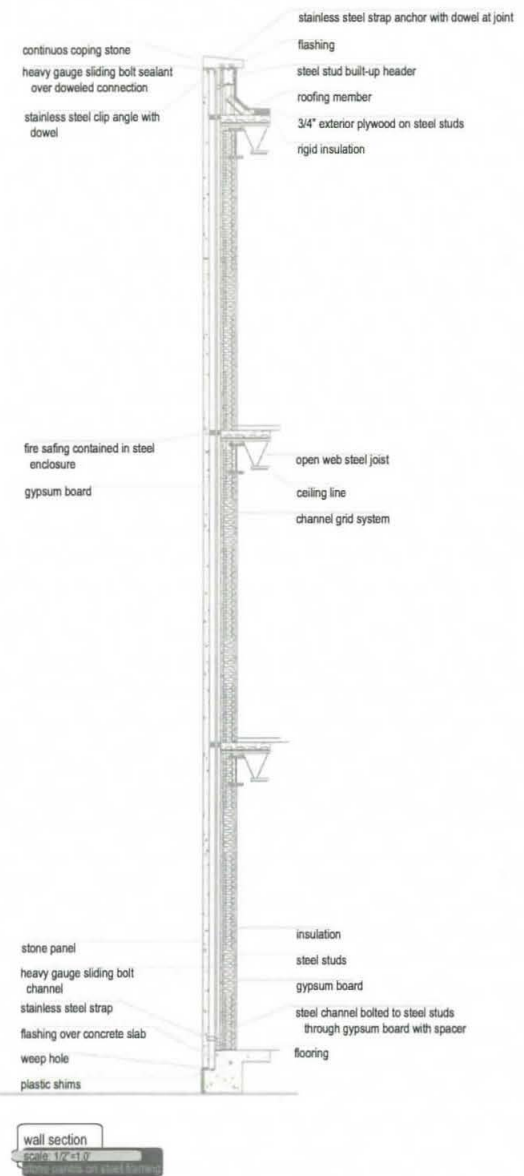
space with out barriers...

i believe a facility for the storage of physical information, is no longer sufficient to deal with the special needs brought to light by the questioning of modern-day communication. this is not to say that the library won't have a role in modern society. rather, that the library will split, this division becoming the genesis of a new form... an interactive forum for the exploration of ideas. i am proposing an exploration of a new typology; a typology for the modern day communication of information. one that promises the opportunity to dwell, engage, think, and communicate. dwelling in its external sense is the purpose of architecture. man dwells when he experiences the environment which he inhabits as meaningful. therefore, dwelling implies something more meaningful than 'shelter.' it implies that the spaces where life occurs are in-fact places, and a place is a space which has a distinct character. this new typology seeks to define the nature

of dwelling given the unique challenges of modern-day technology, communication, space, and place. architecture has the capacity to connect the dweller to space, to in a sense enforce a reading of place. the underlying concept for this new typology centers on the idea of 'space without barriers.' this is a first step on the way to a immaterial and evanescent architecture that leaves plenty of room for the ephemeral. by creating space without barriers the dweller is able to feel free and open. therefore, allowing the dweller to inhabit and experience space filled with unexpected new discoveries. it is a metaphor in real space which parallels that of the realm of informational space. therefore, this forum becomes the experimental place for the dweller to learn how to use and share both virtual and physical space.



the realm of reflection...

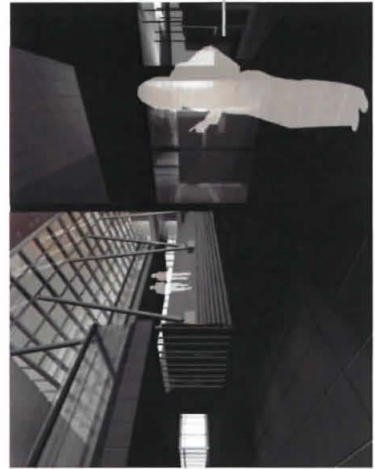


wall section
scale: 1/2"=1'-0"
showing panels and steel framing

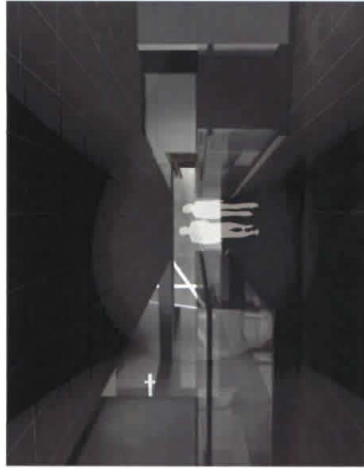
final board layout d...



interior showing the space which pulls the dweller into the realm of virtual reality



interior looking across the 'core' path



a connection path between the realm of knowledge and exchange



interior illustrating how light infiltrates the realm of knowledge

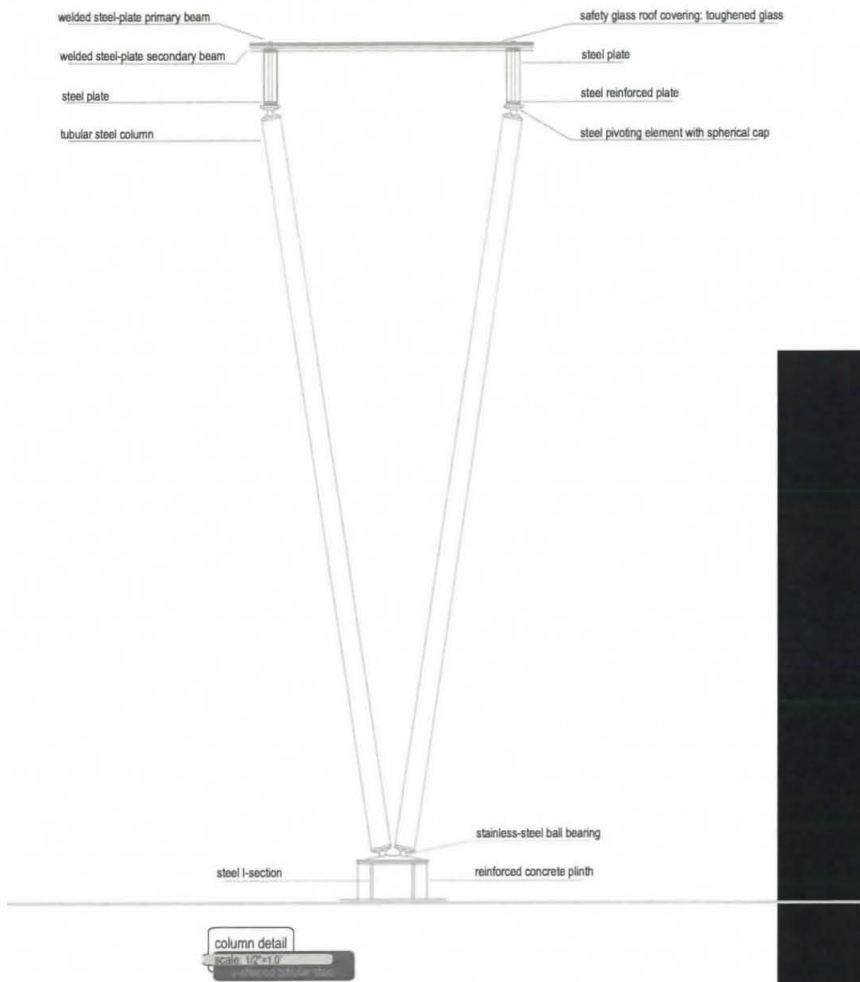


final board layout e...

the path...

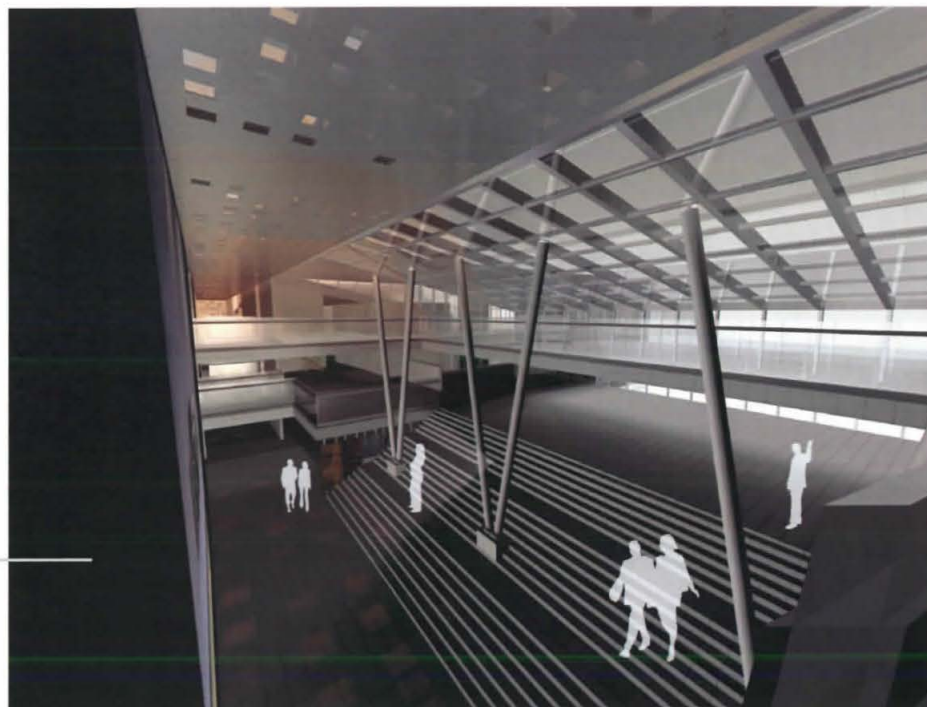
this new forum, above all else is a place designed for the experiential. in order for this new building typology to be successful i had to explore the boundaries of: conceptual verse contextual space, and the human body verse physical perception. basically, the design had to explore the continuum between the conceptual and perceptual aspects of being. to begin: the internet consists of a web of networks all connected, all designed to lead you down the path to gained information. the conceptual underpinning that drove the design of my thesis was the idea that information is the vehicle through which the dweller can gain knowledge. by allowing the path to lead the overall design i was able to use the building as a vessel. one that strives to connect the dweller to knowledge, as well as, provide a place that encourages social interaction on all levels. the path is inherent throughout the building, once the dweller enters one of the three areas of applied learning: -knowledge - reflection

- exchange, the path reinforces the idea of continuity. the dweller knows he or she is on the chosen path by a reiteration of the datum. the datum in this project serves as a reference point at eye level to guide the dweller through the building. a break down of the path: within the realm of knowledge: the dweller experiences the force of the path. elements in the design require a change in movement, they create obstructions the dweller must address in order to continue along the path. within the realm of reflection: the dweller experiences the serenity of the path. elements in the design create intimate spaces that provide a place of rest and relaxation, allowing the dweller to process what has been gained. within the realm of exchange: the dweller experiences the passing through or transference of different paths. this area is left open and free of all barriers allowing the dweller to in essence brush past and connect with all others occupying the same space to share what has been learned.



in addition to the broad staircase, a glazed lift, and a media wall, the minimal steel and glass structure of the exchange center forms a bold contrast to the solid concrete construction of the knowledge area. at the feet of the tubular steel

v-shaped columns are stainless-steel ball and socket bearings. the roof construction consists of an orthogonal welded system of primary and secondary beams that form a rigid horizontal diaphragm.



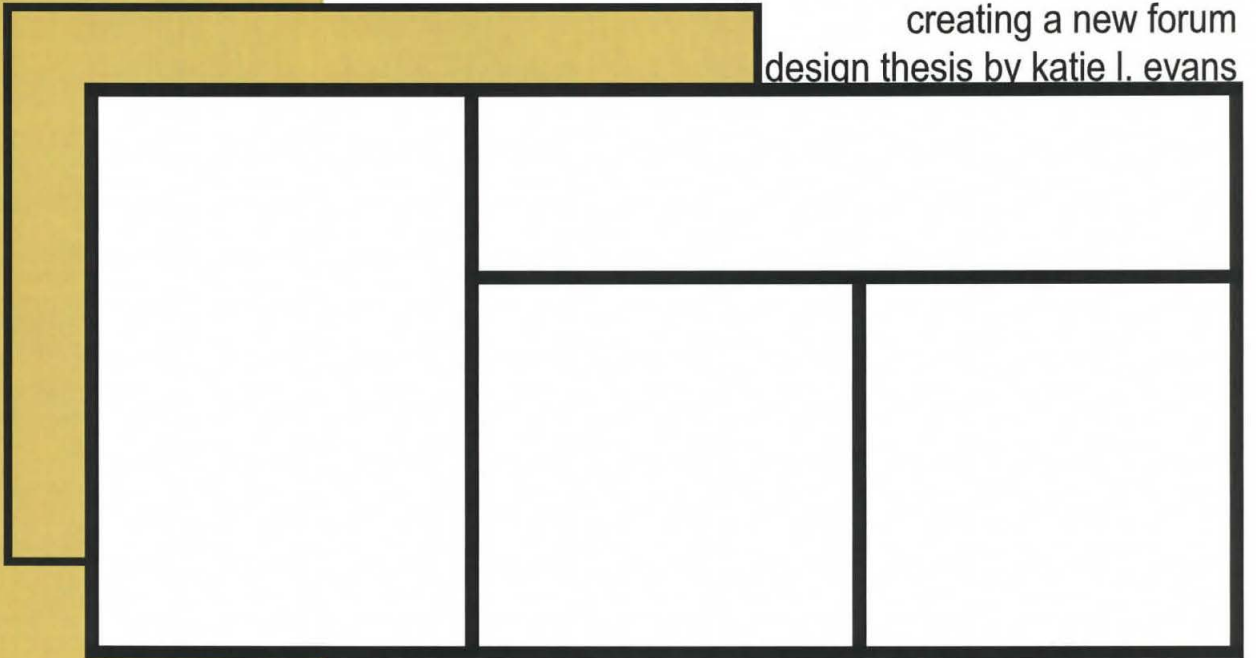
the realm of exchange...

final board layout f...

rumination on a post humanist forum

creating a new forum

design thesis by katie l. evans



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Appendix A

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& Image References



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Thanks to my family and friends.
That's all forks...

appendix b...