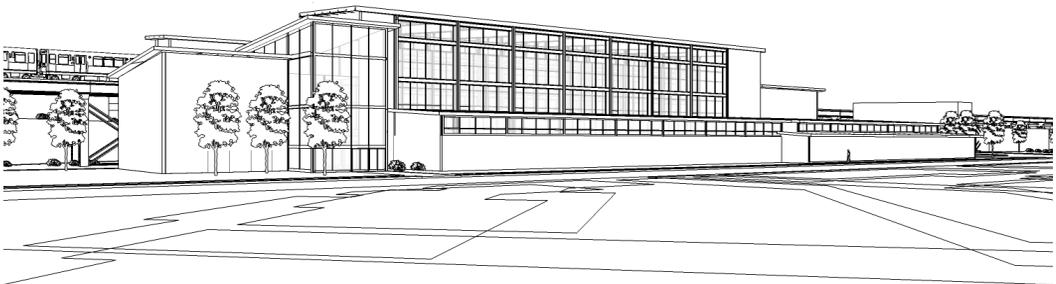


# LIVING UTOPIA

CHALLENGING EDUCATION AS A MACHINE  
THROUGH THE DESIGN OF ARCHITECTURE



Amy Klindworth

Living Utopia:  
Challenging Education as a Machine  
through the Design of Architecture

A Design Thesis Submitted to the  
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By  
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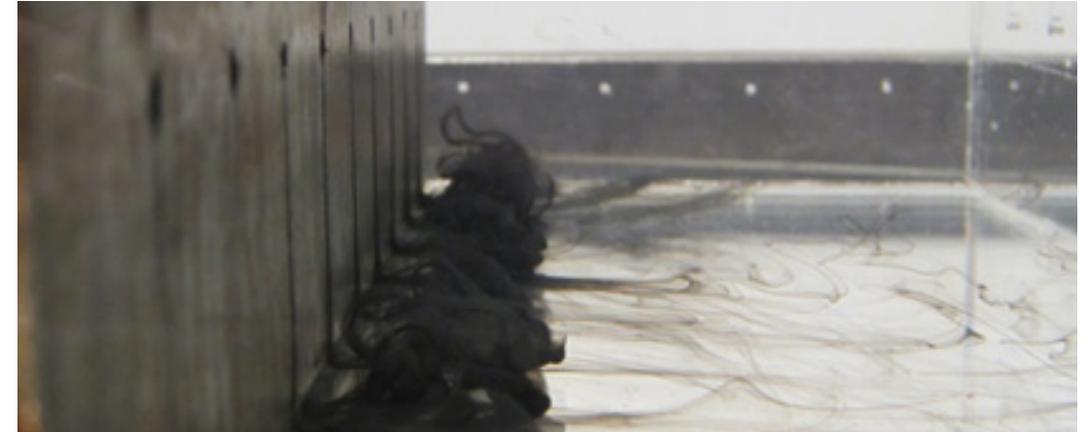
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# THESIS PROPOSAL

# Abstract

Philosopher Jonathan Powers argues that current culture and society are engaging a utopian ideology. This model began in the 16th century when the educational system sought to reduce all knowledge to eidetic (visual) content. At this time, figures such as Tommaso Campanella created top down educational models which boxed out the importance of learning through our experience of the world. Recently, this universal model of education has been criticized by many, including Hannah Arendt, who claim that the current autonomous learning approach only responds to politics, and that learning does not equal education.

This thesis examines how architecture can challenge the existing machine-like view of education in the design of a school and community arts center in Wicker Park, Chicago. Through the use of diffuse spaces that engage the peripheral aspects of consciousness, the architecture challenges the



**FG01**  
**ARTEFACT**  
Inspired by the mechanistic, utopian educational system originating in the 16th century, I created a pataphysical machine that challenges clear focused vision by cultivating shadows and dreams. This led to the architecture becoming diffuse and containing indeterminate spaces, with the boundaries between them beginning to blur and the spaces extending throughout the entire building.

clear, surface thinking of a typical school and instead creates an atmosphere where the imagination can come to life.

# Narrative

Architectural spaces within the learning environment have the ability to influence and enhance the quality and experience of learning.

CLAIM

Using diffuse spaces which engage the peripheral aspects of consciousness allows for the creation of an atmosphere where the imagination can come to life.

SUPPORTING  
PREMISE

Indeterminate spaces help blur boundaries and allow for spaces to combine and extend throughout the entire building.

SUPPORTING  
PREMISE

By embracing the surrounding environment, students can begin to learn through their experience of the world.

SUPPORTING  
PREMISE

Incorporating the public into the building through the use of a community arts center helps challenge the surface thinking that a typical community has.

THEORETICAL  
PREMISE

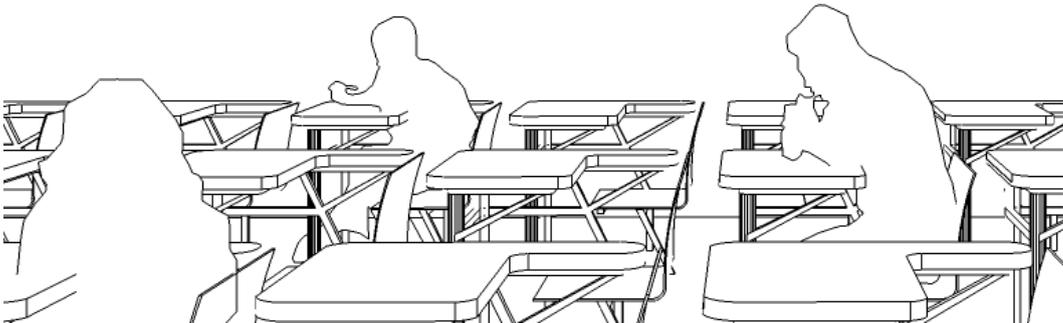
While Utopia is often considered a fictional, unattainable city or political structure which is perfect, this thesis examines how we are practicing utopia constantly, and how it relates to the evolution of knowledge. I intend to approach the concept of modern education in relation to the current crisis of utopia through the design of a school.

In order to accomplish this, there are several steps which need to be taken, including developing a historical/theoretical framework and an artefact. These will be used to inform the design of the school and community arts center.

# Typology

Educational Facility: high school

FG02  
CLASSROOM



# Research

In order to better understand the experiences that I hope to create in my architecture, I first have to analyze how prior works are able to affect perception through participation. These precedents are able to develop meanings and challenge the way things are normally observed.

Through the case study series, I also wanted to further examine several aspects of buildings in a typology similar to mine. By being conscious of my theoretical premise, I was able to research projects which could provide insight into my design.

Being able to analyze the design strategies and space sizes for comparable uses will help provide programming solutions for future projects. There were several other issues as well that I was able to draw conclusions from.

## thermal baths, vals

An architect who is able to pull us into the space and use multi-sensory architecture to reinforce “our experience of ourselves and the sense of the real” is Peter Zumthor. According to Juhanni Pallasmaa, Zumthor is able to “root us in the complexities and mysteries of perception and the real world, instead of confining us in an alienating, constructed artificiality.” Zumthor is able to create meaningful architectural works, such as the Thermal Baths in Vals, by rooting the imaginary world of architecture in reality, materiality and the construction processes (Pallasmaa).

According to Pol Martin of [arcspace.com](http://arcspace.com), Zumthor’s work “constantly evokes and refers to very human, universal ideas of program, formal images, shared memories or atmospheres that we are all somehow ready to share or sense.” The baths are also able to trigger sensory reactions and experiences, because



Zumthor designs with an architecture of senses. Zumthor himself says, “When I design, I try to use the spatially associative quality of thought. The thought process is not abstract but works with spatial images.”

Peter Zumthor’s thermal baths have many combinations of light and shade, open and enclosed spaces, and linear elements. The path connecting them encourages exploring in a controlled way by either ensuring or denying a view, and it is considered by Zumthor as a meander. He says, “The meander, as we call it, is a designed negative space between the blocks, a space that connects everything as it flows throughout the entire building, creating a peacefully pulsating rhythm. Moving around this space means making discoveries. You are walking as if in the woods. Everyone there is looking for a path of their own.” Creating a space which is reflective of something else helps stimulate the imagination and

FG03  
THERMAL BATHS  
INTERIOR



FG04  
THERMAL BATHS  
EXTERIOR

create experiences unique to the individual.

The building form and materials are derived from the dialogue between the surrounding mountains and valley, with it becoming an extension of them. He says, “Mountain, stone, water-building in the stone, building with the stone, into the mountain, building out of the mountain, being inside the mountain-how can the implications and the sensuality of the association of these words be interpreted, architecturally?” Zumthor’s consideration of the surroundings as well as the experience within the spaces allows for the creation of works of architecture which evoke atmospheres that can be shared and or sensed.

# pruitt-igoe, st. louis

An example of an attempted and failed utopia occurred with the construction of the St. Louis public housing complex Pruitt-Igoe in 1954. The design of it was influenced by Le Corbusier's ideal model city: Radiant City. Similar to Plato's intention with his socioeconomic classes, Pruitt-Igoe was intended to replace the slums and provide good, affordable housing to those who needed it. However, there were strict guidelines for all those who hoped to live there. The control that the housing authority had over the residents' lives, such as prohibiting able-bodied adult males from living with their families, helped contribute to the unrest that project's population had. Pruitt-Igoe became a dangerous place, which led to its destruction less than 20 years after its completion.

Eventually, it was determined that the complex was oversized in the decreasing size of the town, leading to empty units. The buildings were also built



FG05  
PRUITT-IGOE  
DEVELOPMENT  
FG06  
PRUITT-IGOE  
DEMOLITION



differently than they were designed. The original buildings were more responsive to the residents' needs and were less massive and homogenous. Finally, due to the completion of the project occurring just after the Supreme Court's *Brown v. Board of Education* decision, the towers banned segregation. This led to many of the residents leaving, which added to the vacancy problems the project faced.

Overall, the city's clear, focused vision intended only for efficiency rather than considering the poetic aspects of it helped lead to the downfall of this complex.

# consell kindergarten

school

Spain

10720 sqf

Whole building located on ground floor to create a fluid relationship between the interior spaces and the outdoor playground. Building acts as a path which needs to be traversed.

Colorful, zig-zag path organizes classrooms clusters, which consist of 2 connected rooms opening into courtyard, along itself. Building contains 6 classrooms, kitchen and dining room.

project type

location

size

characteristics

program  
elements



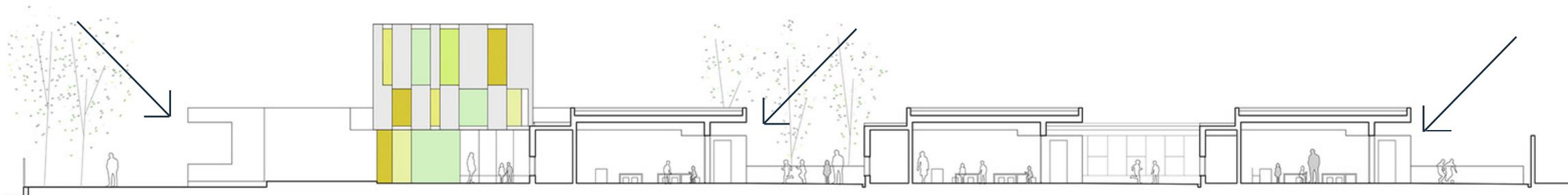
FG07  
CONSELL FRONT  
FACADE  
FG08  
CONSELL SHAPE

Similar to the other case studies, this project is highly dependent on natural light within spaces.

It varies from the other projects in its materiality. While I chose to focus on more natural elements in my other projects because they were more fitting to my site, this building also drew inspiration from its surrounding environment.

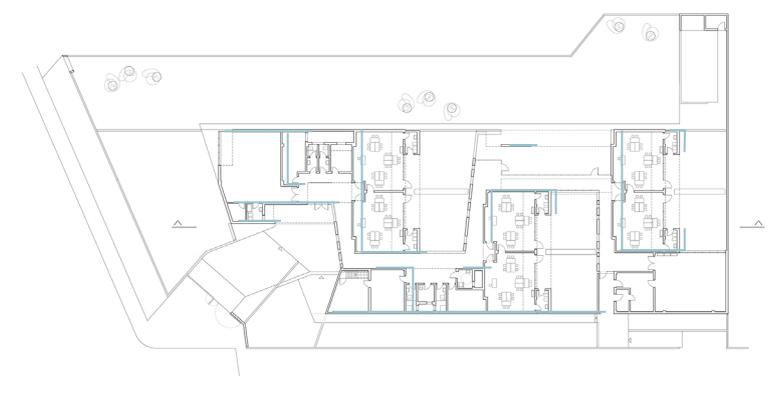
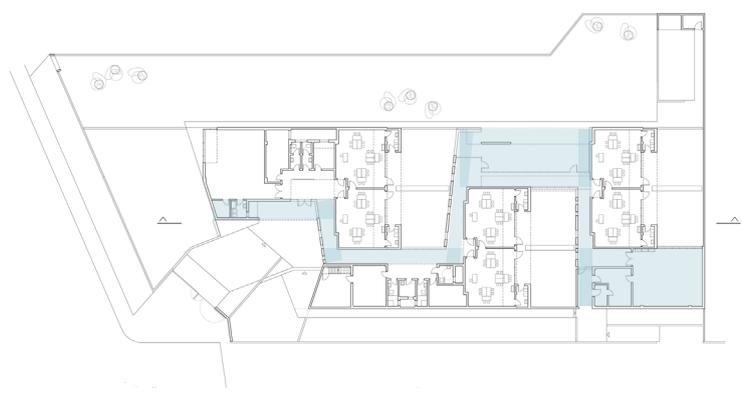
Environmentally, the project colors were replicated from a neighboring orange grove. It is positioned so the classroom windows all open into its own courtyard rather than facing the adjacent school. This project is near the edge of the urban city and was built as an extension of the primary school.

Overall, this case study helps me understand how to create suitable academic spaces which draw from the surroundings and focus on light, color and energy.



FG09  
 NATURAL LIGHT  
 ACCESS  
 FG10  
 CIRCULATION

FG11  
 STRUCTURE



# i mosaici school

school

Rome

51667 sqf

Building permeated by flexible spaces which allow the users the opportunity to decide how they want to use the spaces. Building acts as a metaphor for the world.

Building contains 10 primary school and six secondary school classrooms bordering a series communal spaces. This axis also contains the canteen, theatre, gymnasium access and outdoor courtyards.

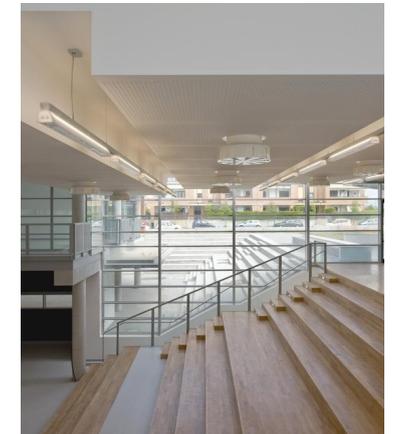
project type

location

size

characteristics

program  
elements

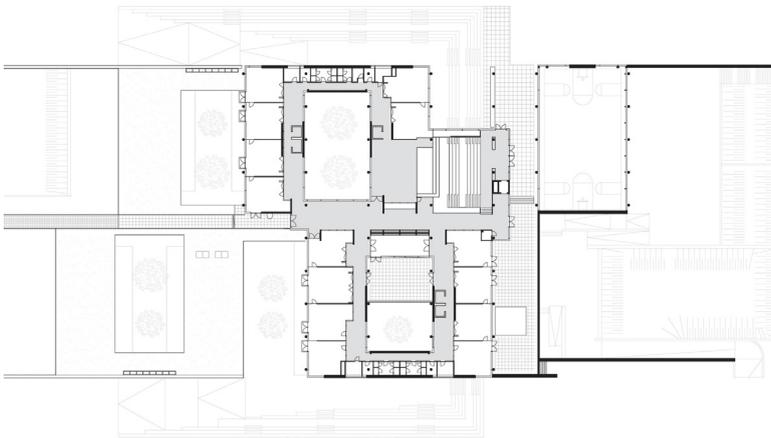


FG12  
BUILDING  
MATERIALS  
FG13  
I MOSAICI  
COMMONS

The large social area of this school allows for multiple uses, such as public events, breaks, or group lessons.

The load-bearing structure of the building consists of reinforced concrete beams which are set at right angles along the main axis. This allows the internal circulation to be altered depending on the use.

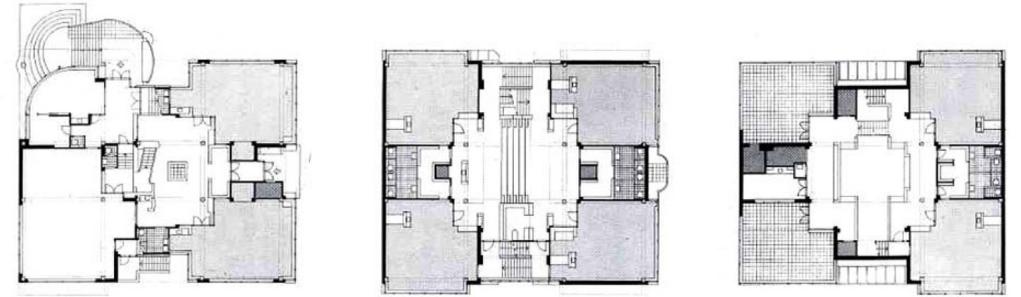
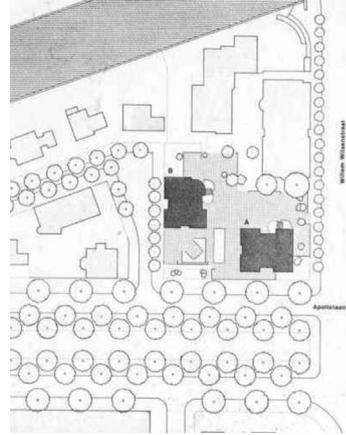
This causes a reciprocal relationship to occur between the user and the building, similar to the relationship which exists between individuals and the community. The multiple possible forms of the building allows it to be interpreted differently depending on the current educational needs of an individual.



FG14  
I MOSAICI SECTION  
FG15  
I MOSAICI  
CIRCULATION

# apollo school

- project type** elementary school
- location** Amsterdam
- size** 14349 sqf
- characteristics** Classrooms are organized around an internal amphitheatre space. Smaller corridors extend from this central area. Other blocked-out spaces within the organization of the school provide places outside of the classroom to work .
- program elements** Consists of two buildings with six classrooms each. These are organized in two groups of three. Teachers have their own spaces along the balcony corners.

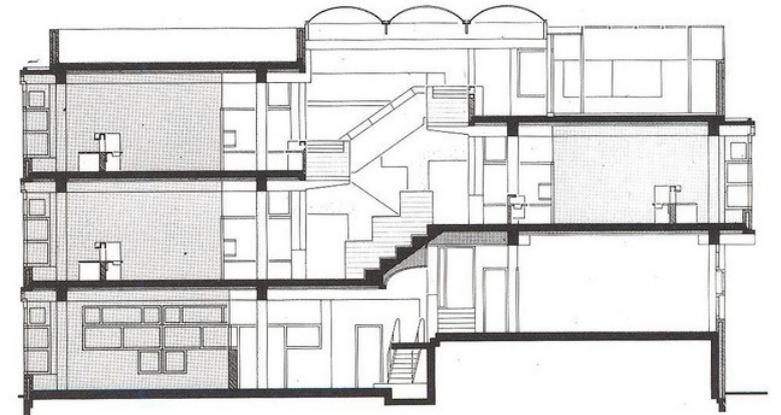


One of the main intents of this building was to create spaces of flexibility. With the classrooms situated around a social, communal space, contact between all students increases. This allows for the stimulation of ideas among both the students and teachers to improve.

In addition to this interaction, the large stair treads also serve as moments of opportunity. The students automatically become the players and the audience members.

FG16  
APOLLO COMMONS  
FG17  
APOLLO SITE PLAN

FG18  
APOLLO PLANS  
FG19  
APOLLO SECTION



# Major Elements

## HIGH SCHOOL

The high school will meet the requirements set by the Chicago Board of Education and the Chicago Public Schools system. While providing multiple classrooms for learning, an emphasis of the school will be its large art studio space. A media center and gymnasium, as well as teachers' offices are other elements of the building. The commons area adjacent to the kitchen will be a primary gathering space within the school.

## COMMUNITY ARTS PROGRAM

The art spaces will be available for public use after school hours. By bringing in visiting artists and speakers, the art culture within the community will be enhanced.

# User Description

## HIGH SCHOOL

The primary users of the school are students in grades 9-12. Faculty and staff are also present. The school is run as a charter school, allowing public funding to be used while it operates independently and focuses more directly on alternative education. Total classroom capacity of students is 250. The population of the Wicker Park/Bucktown area is very diverse, leading to a diverse student population. Parking will be available across the street. The peak usage for this group is from 7am to 5pm.

## COMMUNITY ARTS PROGRAM

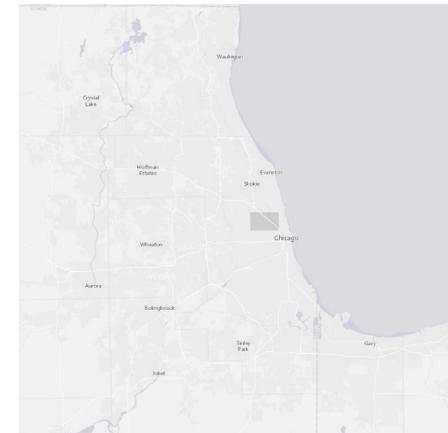
Members of the community are able to enroll in art programs and classes. These small classes are available for all ages. These classes may be available throughout the day in combination with the high school students, or in the evening.

# Site

The site for this school is in Chicago, a city where utopia has often attempted to be achieved. Many of the neighborhoods were built as model company towns with the intention of providing all possible needs of the residents. The Chicago World's Fair of 1893 was another attempt to obtain the ideal city. While these examples attempted to perform perfectly, they were failures because they did not address all aspects of the issues, instead focusing on the visual, top layer. Wicker Park currently challenges many of the standard utopian traditions and is considered an artistic community with a diverse economic background, creating an excellent area to combine a school and community art program. The site itself contains a piece of the machine found within the city. Passing through the middle of the site, the elevated train provides many design opportunities. By embracing the effects of the train, a unique experience can be achieved within the architecture.



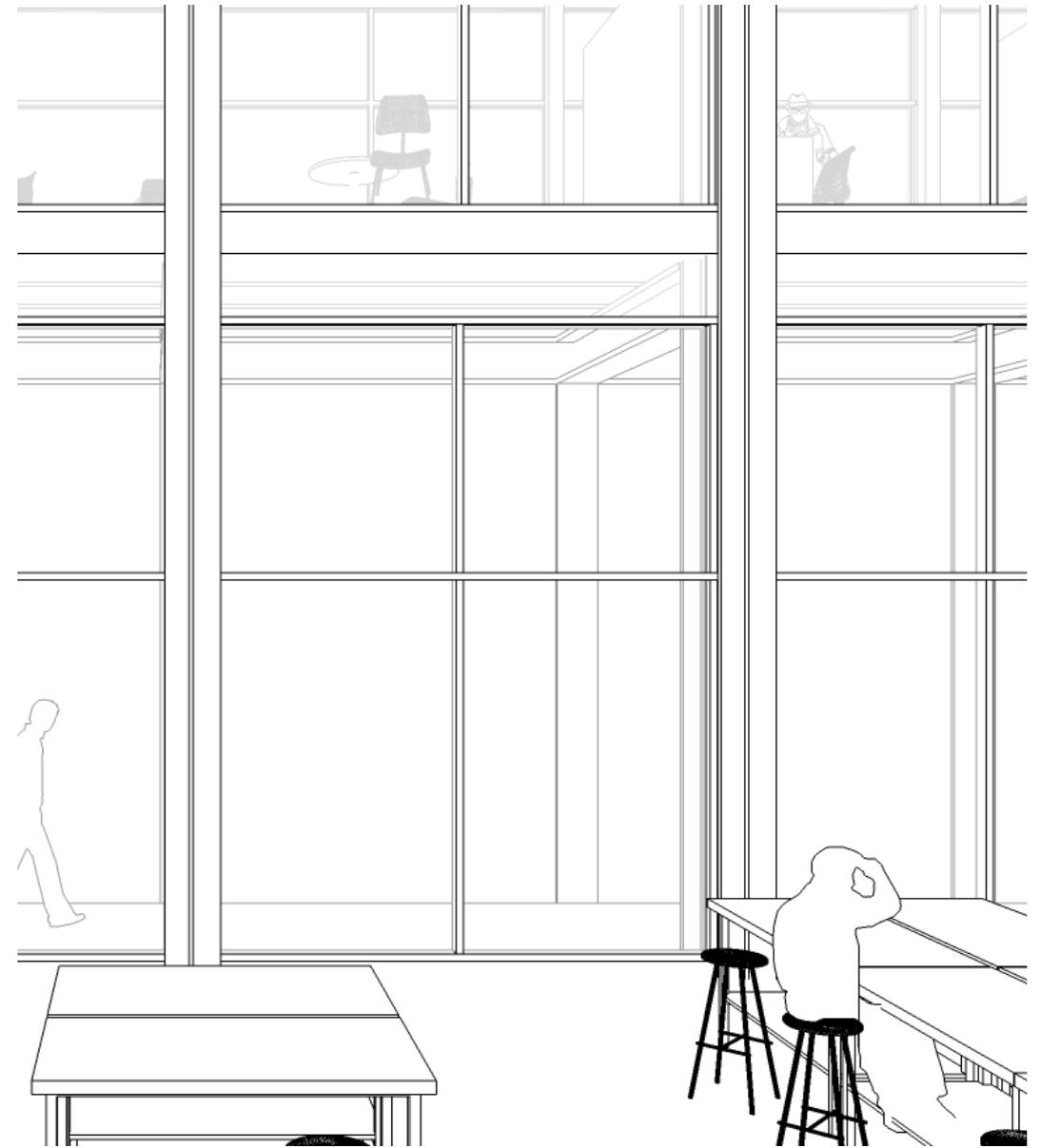
FG20  
SITE LOCATION  
FG21  
CITY OF CHICAGO  
FG22  
STATE OF ILLINOIS



# Project Emphasis

This project explores how architecture has the ability to challenge the existing machine-like view of the educational system while still adhering to its strict guidelines. Through the use of diffuse spaces, it challenges the clear, surface thinking of a typical school and instead creates an atmosphere where the imagination can come to life.

FG23  
ART SPACE



# Goals

The goal of this project is to create a school which promotes more opaque thinking than the current educational system's clear structure.

## academic

Through the successful creation of a building design and a final presentation, I hope to obtain my Masters of Architecture degree. By including the project in the NDSU Institutional Repository, the results are able to be seen all over the world, providing the opportunity of influencing social behaviors everywhere.

## professional

Understanding theoretical thinking helps expand our thought process and design strategies. I hope to use the experiences that I have gained through schooling and implement them in the workplace when I begin a professional career.

## personal

Thinking this way personally will challenge my thoughts and viewpoints and make me look for alternative solutions to problems. These experiences allow me to grow as a person. Design thinking has changed the way I view life, and it will continue to influence my life choices in the future.

# Plan for Proceeding

Creating a plan for the completion of the project is a critical step in the thesis process. Knowing what steps are required and when they should be done help one remain on track and organized.

In order to understand the background and challenges of the thesis project, research must be conducted. The results of this research will help develop the design solution later in the process.

## research direction

### theoretical premise

Begin to develop questions for design process. Examine theoretical and philosophical texts to learn about other ideas and thoughts.

### project typology

Research other schools and alternative learning centers and determine their operating methods to help influence the design process of my thesis project.

### historical context

Finding out the history and demographics of the area will be necessary.

### site analysis

Analyzing the site will help promote a design unique to it.

### programmatic requirements

Becoming knowledgeable in the programmatic of design and the steps required in it help strengthen the thesis proposal while providing a basis for future development.

# design methodology

Determining a design methodology helps with the exploration of the posed question, which involves architecture and education. Successful integration of these results into the design development requires careful watching.

For my research and design process, I will employ a mixed method approach which includes quantitative and qualitative information. Following a concurrent transformative strategy, the theoretical premise will be the priority. I will integrate the resultant data throughout the research process, as well as analyze, interpret and report the results. Presenting this information will be done with writing and graphics.

The quantitative data will include both statistical and scientific through local and archival search methods. The qualitative data I will gather directly from observation or archival searches.

# documenting process

The method I will use for documenting my progress will primarily be within a sketch book. Site documentation will be done through photographs and sketching. The design process will be done with physical models, sketches and computer programs. Important design decisions that were documented in the sketchbook will be scanned and digitalized regularly. There will also be a process section within the thesis book. The final product will have boards with rendered images as well as a physical model.

# schedule

DAYS	TASK
18	context analysis
30	conceptual analysis
26	ECS analysis
85	model development
15	structural development
30	floor plan development
32	section development
28	materials development
26	re-developent
7	midterm reviews
14	revisions
24	rendering
30	presentation preparation
24	presentation layout
14	plotting and model building
8	thesis reviews

# THESIS PROGRAM

# Research Results

In order for a design to occur which successfully supports the thesis's theoretical premise, thorough research must be completed. This investigation impacts the course of the design process, and connections between the research and the resultant thesis project must be apparent.

This project's research closely examines several philosophical texts in order to more critically and contextually approach particular thesis questions. By situating the approach in a way that creates more questions, a deeper understanding of the project is developed. This occurs through critically answering how the topics in the text are connected to the context of site and program. By comprehensibly relating these ideas in a structured manner, the important connections within the project become more apparent, and the building design becomes more meaningful.

## *ON THE RELEVANCE OF PHENOMENOLOGY*

The philosophy of phenomenology attempts to help people understand the entirety of a situation, including the subjective properties of an experience. These may include culturally relevant topics and questions concerning symbolism and meaning as well as methods for understanding, interpreting and communicating what culture is.

The culture of an area influences its views and experiences as well as how it engages with the surrounding world.

In addition to the culture of the region, the contextuality of the project is also important. This means that the content and purpose must be considered in addition to the physical building. By seeing the project in its situational context, the building becomes whole as a combination of setting and place of occupancy. These situations impact the conditions that it is used in.

A situation that helps give complete understanding to how people think is their current location. Through use of the site, a deeper meaning of the situatedness and cultural context is gained.

### *THE EYES OF THE SKIN*

People's understanding of the world and of their own experiences is dependent upon their tactile senses. These consist of touch, sight, hearing, smell and taste, all of which interact to inform the final image. Juhani Pallasmaa argues for the importance of designing for all of these elements, rather than just focused vision. He claims that this helps create a more lived experience.

Architecture that places people in the world through the use of senses and metaphors is able to remind people of who they are. This structuring is possible because of design's ability to understand longevity, people's place in the world, and the concepts of culture and time.

The use of the senses allows people to better reconcile themselves and the world through architecture and design. This concept will allow this project to connect people more deeply with the surroundings.

### *ARCHITECTURE AND THE CRISIS OF MODERN SCIENCE*

The ability of people to exist both spatially and temporally enables a deeper dimension to be attained through architecture. It is able to develop a geometry of experience which contains an order of all experiences.

The basis of human decisions is truth. This methodology interprets the process and objectives of life and attempts to situate them in the world.

The two dimensions that are in every system are formal and transcendental, also known as syntactic and semantic. The formal dimension relates to the actual structure of the system and the relationships between its elements. Transcendental references the lifeworld and its reality, as well as history related to it.

Meaningful architecture is developed through using the poetical content of reality, or priori. Reality may relate to the organic totality of the world, and this can contribute to form.

Creating a form is critical in architectural intentionality. By determining the transcendental intent behind the form, meaning can be given to it.

### *METAPHOR AND TRANSCENDENCE*

Karsten Harries is a professor of philosophy at Yale. His essay "Metaphor and Transcendence" was presented at the 1978 symposium "Metaphor: The Conceptual Leap."

In "Metaphor and Transcendence," Harries examines the current trend of the differences between works having more emphasis than the similarities among them. This challenges Aristotle's claim that "a good metaphor implies an intuitive perception of the similarity in dissimilars" (71). Instead of using metaphors as a way to find things that are the same, they are now being used to create something new. According to C. Day Lewis, "we find poetic truth struck out by the collision rather than the collusion of images" (71). This tension and opposition rather than agreement creates a new approach to poetry.

A poem is intended to be a complete whole which contains a sense of unity as well as metaphor. These two claims are difficult to reconcile within a work. According to Harries, this is partially because of a metaphor's ability to connect and gather. While this seems to lead towards unity, Harries continues "but the demand that the poem be a self-sufficient whole leaves little room for what I will call the ontological function of metaphor" (72). Metaphors are supposed to help reveal what is. They do this by using improper speech and renaming things, which places telos, or purpose, beyond poetry. "In such a view metaphor

has to open the work of art to a dimension that transcends it; thus, it destroys our experience of the work of art as a self-sufficient whole" (73). This resistance to metaphor within comprehensive poetry creates the struggle that accounts for the desired collision.

This preference for metaphors of collision can be more completely understood through an "examination of the implications of the acceptance of unity as an aesthetic criterion" (73). Alexander Baumgarten in 1735 claims that that the theme of a poem contains its sufficient reason. This gives it unity while also allowing complexity, tension, and incongruity. With order as the most important, these discordant elements become necessary toward a successful work which has an aesthetic whole. Similar situations occur in works of art with the "self-sufficiency of the aesthetic experience [corresponding] to the unity of the work of art" (74). However, opposition is apparent in artwork also. "This tension between the presence of the work of art and its meaning, made unavoidable by the aesthetic approach, offers us a key to the prevalence of metaphors of collision in modern poetry" (75).

Poetry is dependent on established discourse, but a struggle must exist against this dependence by the poet as he strives to achieve 'pure poetry,' or ideal language. "Purity is once again tied to presence and immediacy of vision, to a plenitude that rules out

referentiality” (76). This pureness and self-sufficiency is contaminated upon the use of common language, while poetry attempts to create a purer environment of silence. “This tension between desired presence and the unavoidable referentiality of language accounts for the curious ambiguity of such poetry” (77).

According to Jose Ortego, a metaphor’s ability to dispose of an object by having it act as something else allows it to avoid reality. This use of metaphor can help emphasize certain points and show essential aspects of the poem. “The idea of pure art or pure poetry, however, is less the result of careful observation than it is an ideal projected by the perennial pursuit of satisfaction, plenitude, completeness” (80). This pride is the basis for the search for pure poetry. In an attempt to satisfy a poet’s egotism, they derealize the things of nature. “The collision of images helps to decompose familiar reality, to reduce it to poetic material. Out of the fragments of the world the poet creates his own poetic world” (81). Harries claims that this still does not satisfy a poet’s pride, and that they continue to try and preserve poetic self-sufficiency by negating the authority of their poetic precursors. This creates tension between the pursuit of unity and the spirit of revenge that cannot be escaped.

“Metaphors speak of what remains absent,” because metaphors can transcend language, implying lack (82). According to Harries, refusing metaphors

is related to the project of pride and is tied to the aesthetic approach which hopes that “the search for knowledge can come to rest in the plenitude of clear and distinct perception” (83). However, this does not happen because we “we do not have an unmediated understanding of anything real, not even of our own selves” (83). Though we are not able to tell what is, we are capable of distinguishing between varying levels of descriptions.

While the pervasiveness of the aesthetic approach in modern art and poetry is easily seen, the attempts to restore the lost ontological significance of this approach are also readily apparent. Writers such as T. S. Eliot claim that the experience of reading a poem needs to be more than aesthetic, but that it should “reveal what matters and thus help the individual to determine what his place in the world is to be” (86). Martin Heidegger encourages the ontological approach by saying that poetry “reveals the meaning of what is as it establishes a world, where ‘world’ does not mean the totality of facts but a space of meaning that assigns to things and to man their proper places. Paul Ricoeur further claims that literary works are able to create a world, and by placing oneself in that world helps further the understanding of their own world. These descriptions help deepen the nature of being instead of only considering the surface.

### *SITUATING PATAPHYSICAL MACHINES: A HISTORY OF ARCHITECTURAL MACHINATIONS*

In Chora 6: Intervals in the Philosophy of Architecture, Peter Olshavsky investigates pataphysics via the machine and their implications on architecture.

Pataphysics, as described by the developer of the idea, Alfred Jarry (1873-1907) is a “science of these present and future beings and contrivances and the Power their Use confers” (182). It is further described as “the science of imaginary solutions, which symbolically attributes the properties of objects, described by their virtuality, to their lineaments” (200). Through this we determine that this technology may have a deeper meaning, and that pataphysical machinations are part of the history of architectural machines.

### **A HISTORY OF MACHINES**

The purpose of the machine has changed throughout time, as well as its relation to mathematics, metaphysics, and human will. Vitruvius focused on the efficiency of machines and their constructive properties. However, he also recognized that machines are more than a mechanical system, and that they allow “regularity of the cosmos to resemble a labyrinth” (183). The inclusion of nature and the universe was supposed to have more control and dominance than the machine.

The mechanics that machines used eventually became a source of wonder. Some people worked to hide the mechanical reasons of things happening and used them to cause bewilderment, because the produced appearance was not the same as the habits of reality. While these people considered the mechanics of utility and wonder as knowledge which was inseparable, others, such as Aristotle, saw knowledge as a method of leading one out of ignorance by surpassing wonder. He achieved this by using modern techniques in machines to try and understand distant things. These machines depended on nature but were considered free from it.

During the medieval times, the purpose of machines was to depict nature and its wondrousness. Philosophers of this time regarded wonder as “the appropriate response not only to the unfamiliar and the rare but also to a phenomenon of unknown cause that a machine might present” (188). The creation of mechanical art enthralled observers with artefacts that were not easily understood, receiving both praise and condemnation.

In the 16th century, the use of machines changed and became more purposeful for ordinary tasks. This caused mathematics to become involved in many more situations; however the world still resisted total instrumentality (190).

Galileo (1564-1642) was another person who

reconceived the idea of the machine when he declared mathematics as the essential structure of the world, allowing natural phenomenon to be greatly simplified. This thinking criticized earlier machines that focused on wondrous mechanisms.

Seventeenth century machines continued to shape the world and help with its understanding. These machines “were embedded in a rich cultural sphere and were developed with a speculative thrust that was more metaphysical than technical” (192). Rather than focusing on its function, its primary significance was as a metaphysical “understanding and representation of movement in the created world” (193). During this time, the mechanical knowledge continued to enclose on the natural world and its workings.

Isaac Newton further explored these ideas by using mechanical terms to explain the actions of the physical world. The spread of Newtonian and Enlightenment ideals helped elevate the status of the mechanical arts. However, there remained a “separation between representation and realization” (196). As the gap worked to close, methods were taught for systematically mapping machines and lived spaces.

Through this process, “the machine became fully technological, shedding its association with the elbow grease of the mechanical arts” (196). Technology continued to gain autonomy and power, providing the

knowledge and means for advancement. According to philosopher Michel Harr, “The project at work in technology is a metaphysical project because it concerns all domains of reality and not only machines. It marks beings in their totality” (198).

### PATAPHYSICAL MACHINES

Before 1850, the machine was primarily a theme representing utility or inhumanity. Between 1830 and 1840, it gained prominence with the utopian concerns of the Saint-Simoniens social movement, which was considered science the way to regenerate society. Machine’s popularity was also spurred by “the growing regard for the mechanical arts and, as Jarry puts it, ‘a universal substitution of Science for Art’” (198). As progress advanced, the functional interpretation of the machine moved toward mathematical certainty, while the aesthetic interpretation “sought to be the science of ‘things perceived,’ as logic was the science of ‘things known’” (198).

These recent developments fail to address the division between function and aesthetics. Jarry attempts to create a science which accomplishes this through studying epiphenomena, or the science of the particular. This opposes the claim that no accidental knowledge or science exists, which allows Jarry to study exceptions.

Similar to education, “Modern physics is based on the world of appearances and quantifiable phenomena,

while metaphysics is lost in abstractions that neglect the concrete and historical. Pataphysics targets precisely where we live. This includes dreams, hallucinations, and other outpourings of the imagination that modern science does not regard as ‘real’” (199). Jarry recognizes that using our embodied position offers a philosophical orientation that uses science to argue against science. He further examines this through the use of machines without any apparent function. “By suspending the functional aim of the mechanics, these contentious pataphysical machines may seem ‘useless,’ but instead they present ‘the semblance of machinery, of the kind seen in dreams, at the theater, at the cinema’” (199). This begins to link them with the earlier machines that focused on the wondrous and imaginative.

Jarry’s method of accomplishing this often involved construing pataphysical machines against instrumental contrivances by using rational and deduction portions of science and technology, and then troping them. By playfully twisting the technologies, he was able to change the pursuit of significance. Jarry further states that the imaginable solutions to pataphysics are based on suggestion, not on precision. “Pataphysical technology ‘enriches the perception of reality by making room for the play between objects and the parts of construction rather than limiting the design by defining tolerances among its parts’” (200). This concept of play is more deeply

examined in *The Relevance of the Beautiful*. It claims that play is able to involve our reason and outplay our capacity for purposive rationality. It also allows us to establish the movement in a specific way (23). This encourages self-representation and the “pure autonomous regulation of movement” (200).

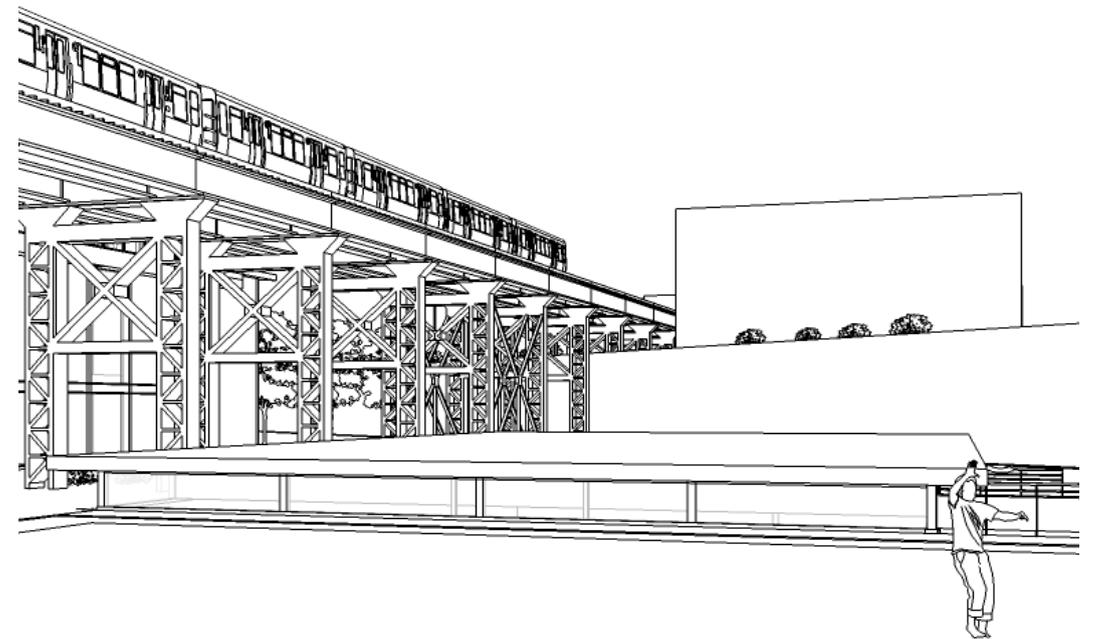
While technology attempts to gain control through exactitude in mechanistic representations limiting the future, pataphysical machines counter this egocentric demand. They aim to “suggest rather than to state” and to “work through the appropriation and playful repositioning of technological doings” (200). Jarry relates the machine to slavery and claims it serves those with low intelligence. Instead, the pataphysical machine creates unpredictable arrangements leading toward symbolic accuracy. To achieve this accuracy, mimesis is relied upon in association with exomosis, “a form of play in which spaces swell in the presence of a work or a character, and they ‘congeal their surroundings into their own image and erect palaces of space around themselves,’” allowing us to create out of chaos (201). According to Olshavsky, “[c]reation then springs from our embodied experience of the world” (203).

Neither we nor technology are entirely responsible for a phenomenon being created. While technology requires foresight and consistency, pataphysician’s embrace opacity and contingent accidents (203). “Hannah Arendt maintains that the contingent is ‘an

act that by definition can also be left undone' and, consequentially, is attached to the free will," since free acts are exceptional (203).

Jarry seeks a unique world with a science that can explain a supplementary universe, or will "describe a universe which can be-and perhaps should be-envisaged in place of the traditional once, since the laws that are supposed to have been discovered in the traditional universe are also correlations of exceptions" (204). Through his machines, he imaginatively "works through the technological towards participation, eros, and death" (204). His machinations, "if appropriately translated, offer a positive alternative-analogous to the play of the work of art-that speaks to the pataphysician-cum-architect's 'eternal' and 'improbable' wager of world building" (205).

FG24  
EXTERIOR  
GROUNDS



# research summary

Philosophy is directly relatable to architecture because it encourages the sharing of questions, which is what architecture fundamentally is. The research direction of this portion of the book focused on philosophical texts which contained information regarding the interpretation of architecture, design using the senses, and technology.

The texts allowed for the contextualization and clarification of knowledge. This section will respond to the readings and create arguments in relation to them. These will respond to the central ideas of the project, attempt to reconcile and question these points in terms of other things, and provide possible answers to these questions.

While researching this information, questions considering how it sought to increase user involvement and interaction were always being considered, as well as how the design could become more meaningful to the community. There were several answers to these queries, as well as the creation of more questions. These will help inform the design of the building.

Meaning in architecture can be derived from many things. These texts all provided information on how it can be achieved. They include a variety of methods, including the poetical content of reality, the intent behind the form or the truth of what it is, or symbolism. The techniques and materials used may also influence the meaning. It can also be derived from the place. The location informs the situatedness and cultural context. The interaction with human culture helps provide culturally relevant information and shows how current actions relate to the overall culture.

These methods of imbuing meaning into architectural design help provide interconnection among all aspects of the building, including the people, uses, site, and context.

With these connections, people will interact more with each other and have a better sense of self.

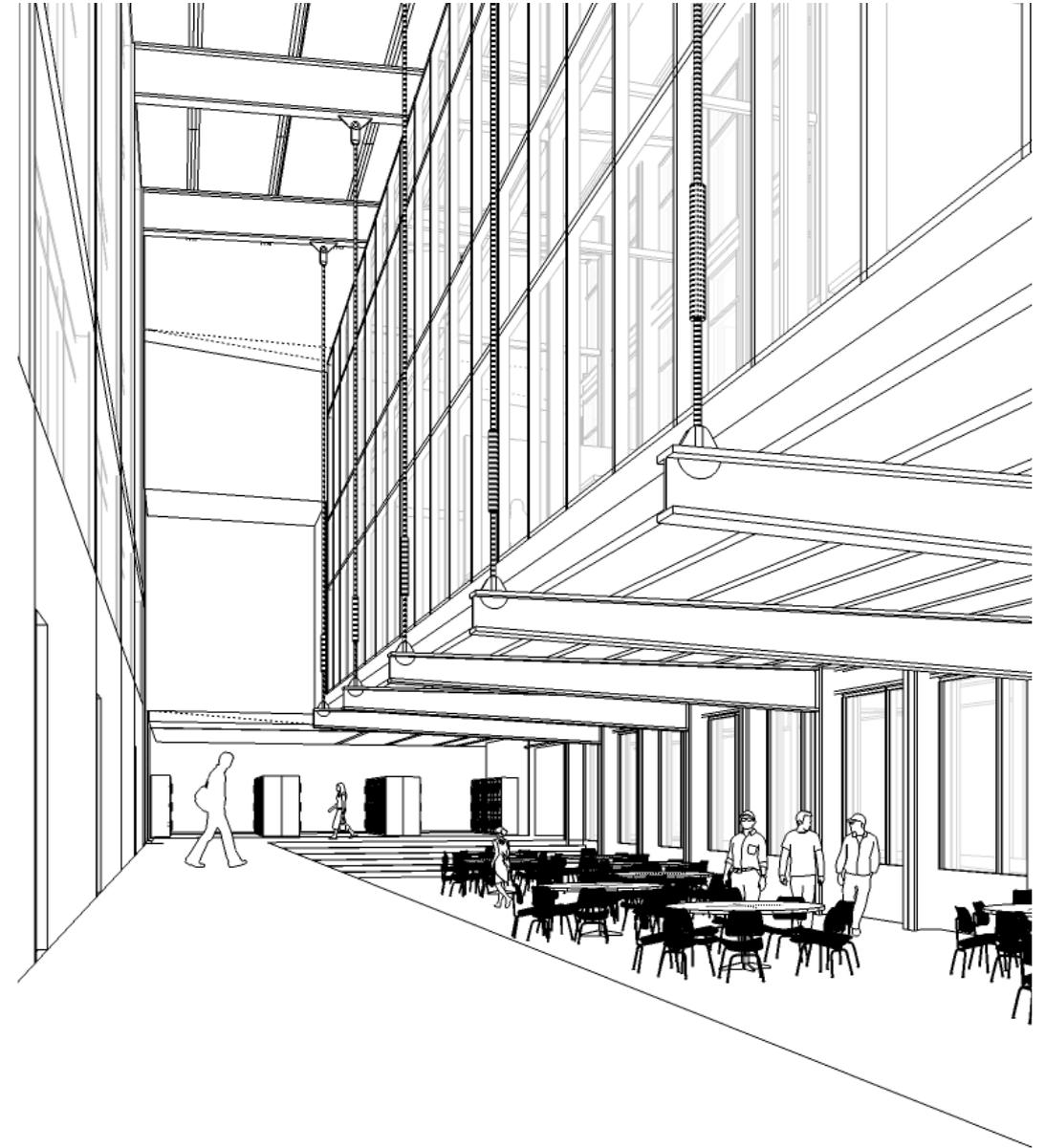
# Project Justification

Education is important to everyone. However, modern education focuses on a 16th century top down approach rather than a bottom up method. By challenging the existing system, a more opaque way of thinking could be promoted.

This led to the architecture of the school becoming diffuse and containing indeterminate spaces, with the boundaries between them beginning to blur and the spaces extending throughout the entire building.

There are many aspects of this project which make it suitable for demonstrating my knowledge and skills, including the project elements, size and location. The unique combination of building uses requires careful planning and organizational skills, while the size of it demands a high level of detailing. The location of it also requires thorough research in order to understand the context and the students.

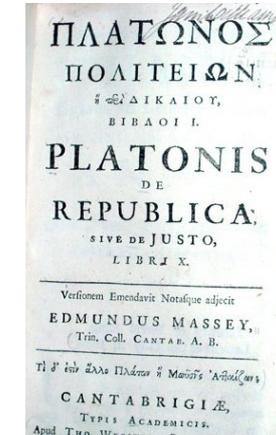
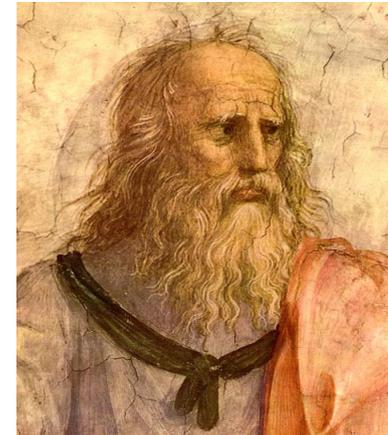
FG25  
COMMONS



# Thesis Context

While Utopia is often considered a fictional, unattainable city or political structure which is perfect, this thesis examines how we are practicing utopia constantly, and how it relates to the evolution of knowledge. I intend to approach the concept of modern education in relation to the current crisis of utopia through the design of a school.

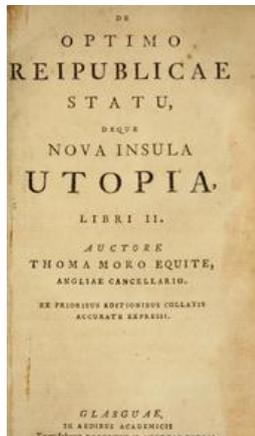
The current understanding of what utopia is comes partially from the etymology of the word, which means 'no place' in Greek. The first utopian proposal was in Plato's Republic in which he categorizes the socioeconomic classes with the hope of eliminating poverty and deprivation. It was further written about in 1516, when More created a Utopian society in which the "concrete explains the abstract," meaning that the process, or the vivid picture he creates, helps support the concept. The concept-images that More depicts is what made the theory of utopia seem



FG26  
PLATO  
FG27  
THE REPUBLIC  
FG28  
THOMAS MORE

possible, with people projecting their own experiences into the schema. Jonathan Powers says that "this 'sketching' of a polity, this giving of eidetic content to the word 'polity' (and 'city'), [is what] makes it possible for us to think of polities as configurable systems of analyzable parts" (Jonathan Powers, 232). More's ambiguous definition of utopia allows for the creation of an experience or the making of a place, which leads to many different interpretations of it.

Tommaso Campanella, who lived from 1568-1639, was one of the first to further explore utopian education and universal knowledge. In his framework for a utopian city called City of the Sun, he creates a circular city consisting of 7 layers, which are based on the planets. He then uses murals on all the walls of the city temple to depict the cosmos and teach the structure of it to visitors. Campanella claims having images present as a method of learning positively



impacts children's intellectual development, and that all human knowledge can be represented eidetically, meaning with visual images. This technique of comprehensively integrating images into an entire sociopolitical organism led to the beginning of the educational reformation in Europe. According to Powers, "Envisioning an entire city as the concrete image of a compendium of human knowledge, Campanella assumes that the totality of human knowledge can be represented eidetically and that such representations can be fully integrated into a city, socially as well as architecturally" (Powers, 234). This theory becomes completely reductive because everything is organized according to what it knows, and can be sketched and labeled.

John Amos Comenius, 1592-1670, also examines the educational theories, practices and conceits that our current cultures uses. These include universal

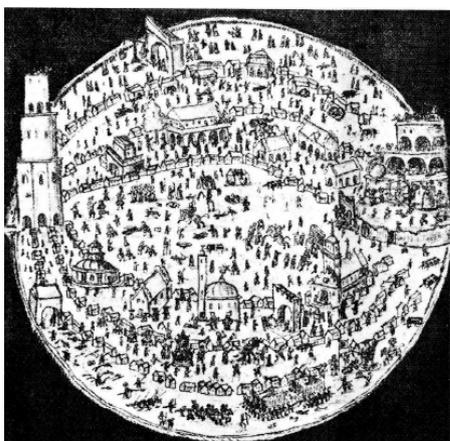
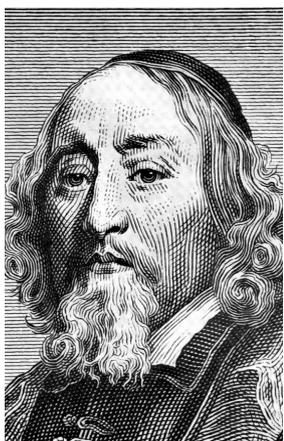
FG29  
UTOPIA  
FG30  
TOMMASO  
CAMPANELLA  
FG31  
CITY OF THE SUN

education, curriculum based on life experience, and direct contact between the student and subject of learning. Comenius considers visual representations an adequate substitution if a real object is not available, because according to him "The visible world is not a source of knowledge: attention to the visible world is knowledge" (Powers, 236). Through this, Comenius replaces the living world with a clearly defined world as seen through the inner eye.

Comenius claims that the goal of his educational system is the realization of utopia on earth. He says "If the educational ideal is realized, the world will become utopia, full of order, light, and peace." This is possible because the clear perception of the world through eidetic representations leads to perfect knowledge, which leads to utopia.

Similar to Campanella, Comenius also develops a world city. It looks similar to Campanella's, but while his is orderly, Comenius's is disorderly and anti-utopian. He hopes this leads people to look within themselves to their heart and finding Christ, which would offer the opposite of chaos, a well-working machine. For Comenius, the center driving this machine was God. This leads to the creation of an anti-anti-utopia, or what utopia hopes to attain.

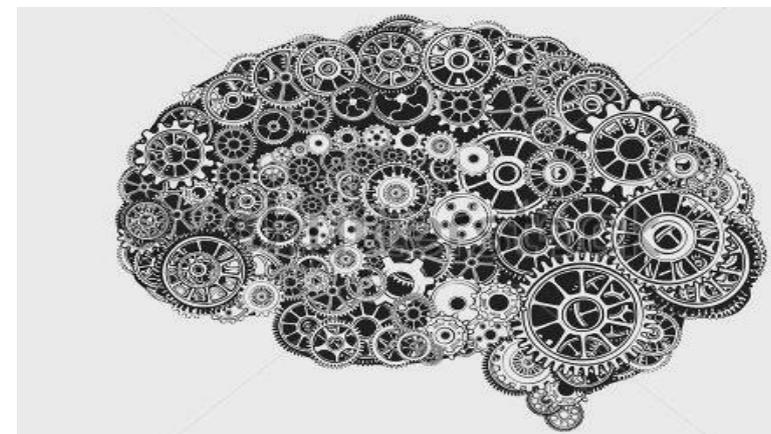
This machine is what utopia strives to be, the "conception of a perfected, well-ordered world" (Powers, 244). The components all work



independently and automatically, with the original purposes having been forgotten. The importance of modern machines lies “not in the specifics of the machine’s mechanism but, rather, in its character as an eidos,” which is the formal content of a culture (Powers, 244). Their ability to carry out their purposes without human input makes them automatic, with their purposes having been “squeezed off from their intentional life of their makers”. These machines do not have the ability to change their purpose on their own, so “the mechanical is not something that acts without purpose but something whose purpose can be forgotten.” “Comenius’s pedagogy relies on an automatic eidetic equivalence that passes over the unfathomable gaps between seeing, saying, and knowing without acknowledging them.” Since Comenius, the world and the educational system has become mechanical and automatable with the only intention of creating more cogs for the machine.

FG32  
JOHN AMOS  
COMENIUS  
FG33  
WORLD CITY

FG34  
UTOPIA AS A  
MACHINE



Similar to an automatic machine with independent function and purpose, people also have a capacity for habituation, or “the capacity to develop a reflex, reaction, or attitude that forgets its original purpose.”

Since society is a machine, utopias become the foundation of social change. Until the machine is challenged, it continues operating with its unremembered original purpose. Through our current culture and society, we are practicing utopia.

During the mid-1900s, Hannah Arendt examines current culture and education and studies the problems of it. She claims that the elementary standards of the school system are progressively declining because education has become an instrument of politics rather than of learning. By focusing on the children and a new world instead of the adults and the old world, and introducing students

to the entirety of the world instead of just portion of it, improvements could be made.

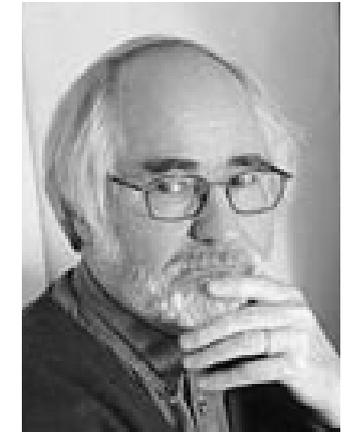
Culturally, there are also problems. People now want entertainment rather than culture. As mass society wants things produced to fulfill personal needs, cultural objects are being lost. Until people begin to realize the role that artists play in society, this will continue to decline.

As Arndt argues the lack of authority and tradition in current society, Alberto Perez-Gomez (1949-present) similarly critiques modern science as becoming purely a technological process and failing to connect to the poetic whole while supporting the connection of art and knowledge. He says “The making of the arts has always conveyed in their specific universes of discourse, not ‘information’ but true knowledge.”

Another person to realize the importance of the image is Juhani Pallasmaa (1936-present). In *The Embodied Image*, he claims that the perceptual and emotive power of the artistic image is shown in the past and in ourselves. Mental imagery helps with perception, thought, language and memory, as well as being the foundation of humanity. Through images, new things are able to be created and the experience of a building becomes poetic and creates interaction, with the building itself becoming an image. He claims that the utopian vision uses mechanical connections which are based in the visual world.



FG35  
HANNAH ARENDT  
FG36  
ALBERTO  
PÉREZ-GÓMEZ  
FG37  
JUHANI PALLASMAA



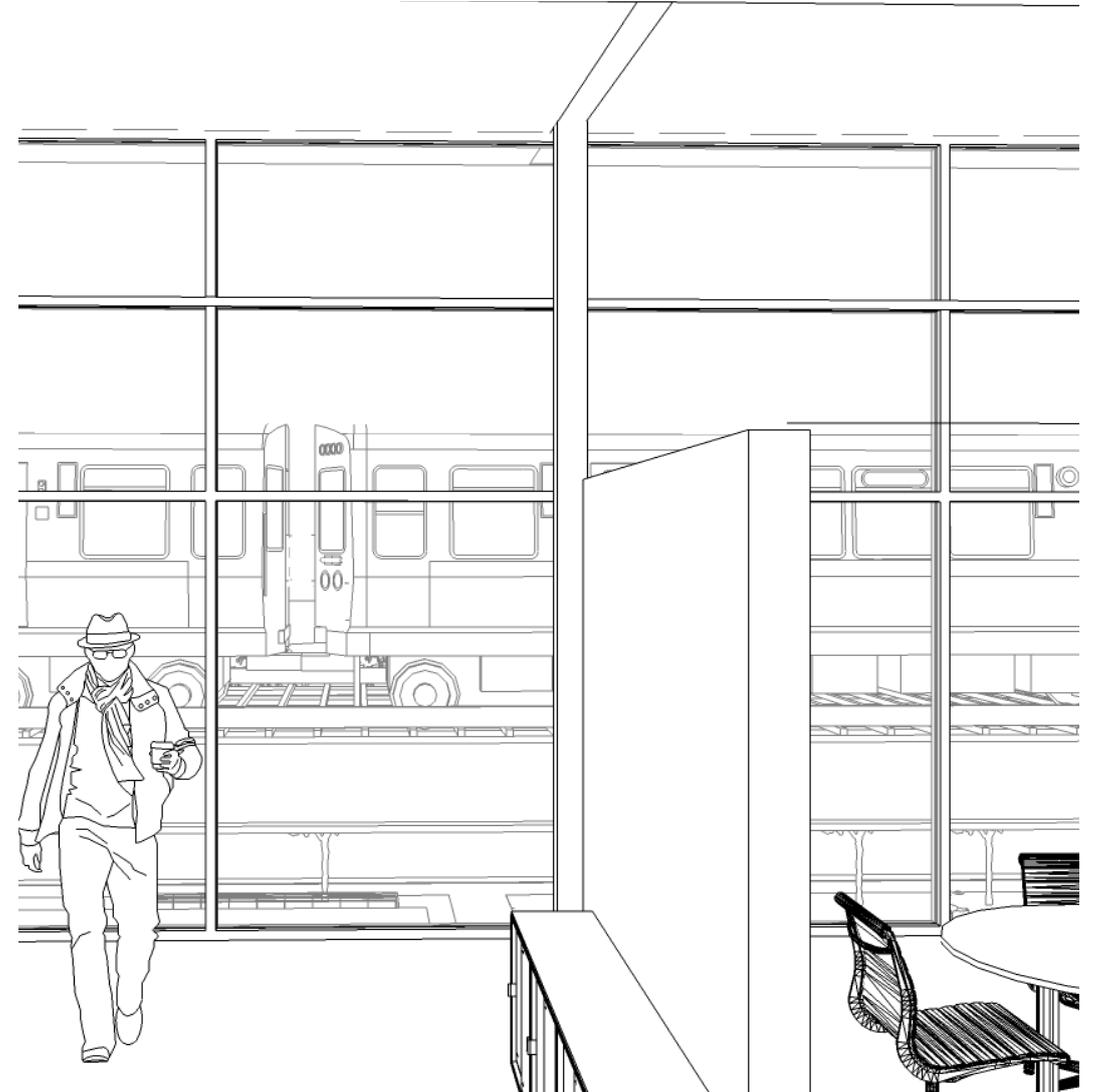
In his work *In Praise of Vagueness*, Pallasmaa goes on to argue for the importance of vague, unconscious thought. “Dynamic vagueness and absence of a focus are also the conditions of our normal system of visual perception...” By combining the world and the perceiver, they become more connected participants rather than only observers. “Visual space thus turns into an embodied and existential space that is essentially a dialogue and exchange between the space of the world and the internal space of the perceiver’s mental world.”

The current educational system continues to become more reductive, utopian and machine-like in its process. This project challenges those theories and encourages a more complete approach to school design using an awareness of the world. According to Pallasmaa, “Architecture has been increasingly understood as a rationalized, secularized, and visual



artform.” This turned it into autonomous form of art rather than a mediation between the universe and man, which has led to “today’s fully technologized high-tech architecture based on pure utilitarian and technological reason, and aspiring to turn reason into aesthetics.”

FG38  
CURRENT  
EDUCATIONAL  
SYSTEM  
FG39  
OFFICE SPACE



# Site Analysis

## QUALITATIVE ASPECTS

Located near the eastern side of Chicago in the neighborhood of Wicker Park, this site has several unique features. The most prominent is the passing of the elevated train through it, which nearly cuts the site in two. The site is also bordered on each side which further isolates it. On the north, an old elevated rail line creates a solid wall. This is currently being developed as a recreational trail and park which runs nearly three miles and serves as an alternative transportation corridor. The remaining sides each have roads adjacent to them. The most highly travelled of these is Milwaukee Boulevard on the north east. Another interesting aspect of the site is how it is situated in the city. While the roads primarily run in a grid according to the cardinal directions, this lot is shaped as a trapezoid because it occurs at the intersection of the grid with the traffic corridor.

From the site, one has a view of several parks which have trees and shrubs, but no water. These are undeveloped because of the odd angles caused by the interrupted grid. The buildings located in the area use primarily brick. There is also a large presence of concrete and steel. The heights of the neighboring buildings vary greatly. Some are less than 20 feet, such as a grocery store, while other apartment buildings are nearly 70.

Human development has further altered the site rather than just its surroundings. Worn sidewalks are present along the perimeter of all but the north side.

Currently, the site is beginning to undergo construction for apartment buildings.

## QUANTITATIVE ASPECTS

The location of the site in an urban area affects many aspects of it. Present already are utilities. The topography of the site is flat with little drainage, but the soil is suitable for building. There is no public vehicular traffic or pedestrian usage on the site, but the surrounding roads and sidewalks are busy. Trees are located along these sidewalks, with grass growing on the remainder of the site.



- site
- commercial
- private housing
- apartments



FG40  
SURROUNDING  
AREA  
FG41  
EASTERN PORTION  
OF SITE LOOKING  
NORTH

FG42  
NORTHERN VIEW  
FROM SITE  
FG43  
SOUTHEAST  
CORNER OF SITE  
LOOKING WEST





FG44  
WESTERN VIEW  
FROM SITE  
FG45  
NORTHWEST  
CORNER OF SITE



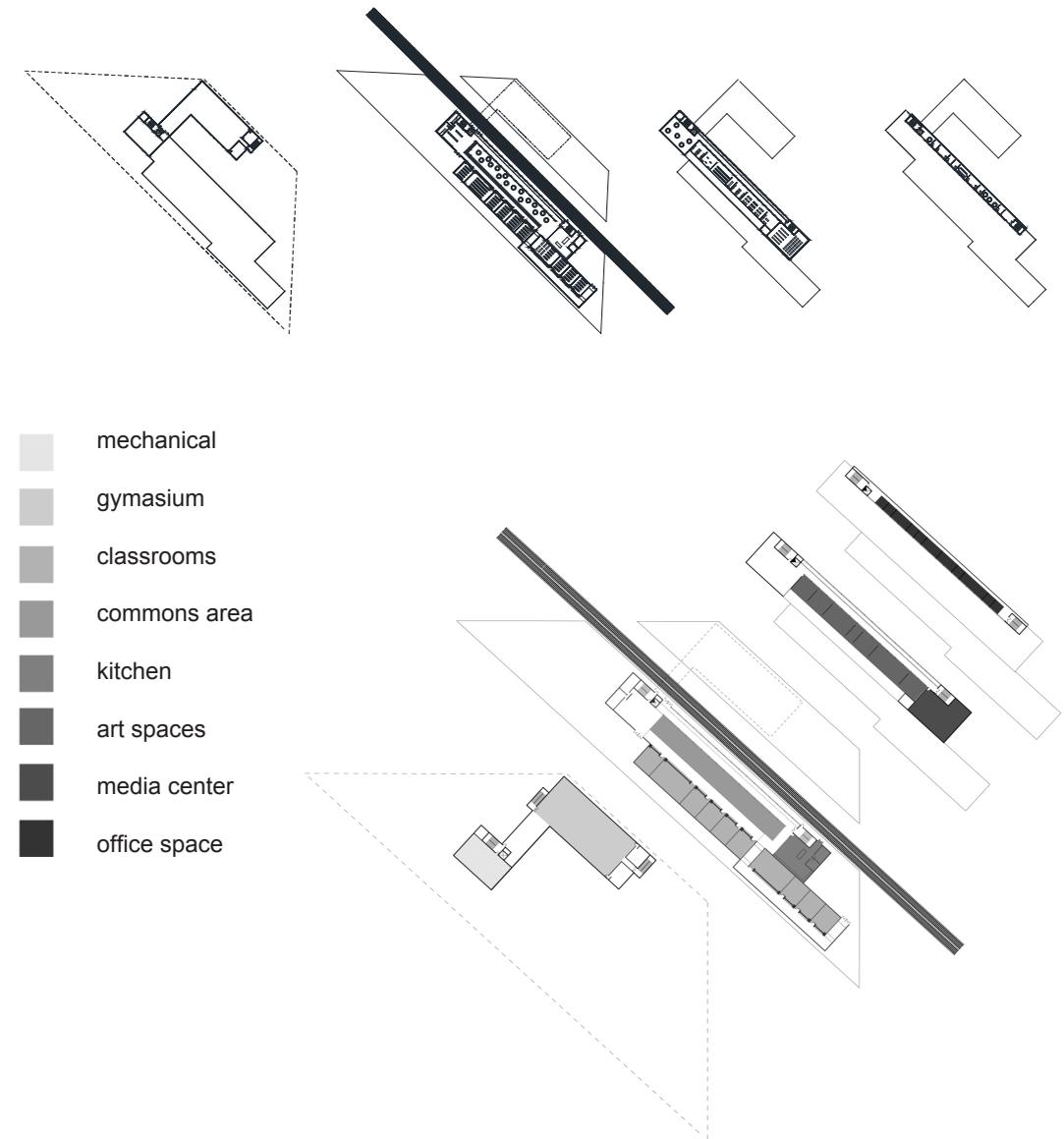
FG46  
WESTERN SIDE OF  
SITE  
FG47  
SOUTHERN VIEW  
FROM SITE



# Building Program

The spatial requirements for the building were determined by the case studies and programming references. The suggested classroom size was a minimum of 750sqf. This was used as the basis for determining the number of students that could use the building, which is 250. The commons area is able to hold half of these students at once, and the kitchen must be adjacent to this area. The office space allocation was determined by the number of teachers required to teach this amount of students. Other considerations were that the media center could be out of direct sunlight, while the art spaces benefitted from it. The classrooms were positioned as far from the elevated train as possible to lessen the noise disturbance from it. The locker area was also positioned near the classroom and commons area for convenience, as were the majority of the restrooms. The low usage of the gymnasium allowed it to be slightly separated from the rest of the building.

FG48  
BUILDING  
FLOORPLAN  
FG49  
BUILDING PROGRAM  
PROCESS



# DESIGN SOLUTION

# Process Documentation

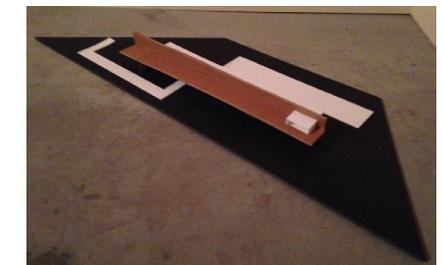
The final design solution was determined through the creation and subsequent disassembly of process models. They began with possible spatial layouts of the site, and gradually became more specific.

Other design considerations were informed by the artefact. They included the submerging of the architecture, similar to how the steel block is submerged in the tray of water. The containers of this tray were unified yet separate, leading to the initial cell like divisions of the classrooms.

The ink that permeated the tray seemed to thicken the space, and the clarity became more distinct because of the opaqueness that occurred.

As the design evolved, the art spaces moved above the commons area, allowing the students to dwell in the shadows cast below it. In this place they were

FG50  
MODEL PROCESS





able to come together for social activities.

Other ideas which evolved from the artefact included an atmosphere of gradients and the concept of the building behaving like a clock. This could occur through the slow or fast movement of shadows, or the moving from opaque spaces to clear spaces depending on the time.

A large structural wall was also developed. This began as a massive concrete wall that only had cutouts for doorways which served as transitional spaces. This later transformed into a lighter, translucent wall which allowed the movement of the train, as well as people, to be seen without the clear distinction of them. This line moved throughout the building similar to the ink through the water.

Through the consideration of soaking or flooding through, layers were developed which led people lengthwise through the building.

The idea of modularity similar to the box-like divisions of the artefact, as well as the varying light levels related to the levels of diffusion, remained apparent in the design.

A concept that was further developed was the blurring of boundaries for the creation of indeterminate spaces. Instead of puncturing through the structural wall, it changed to create a connection through to

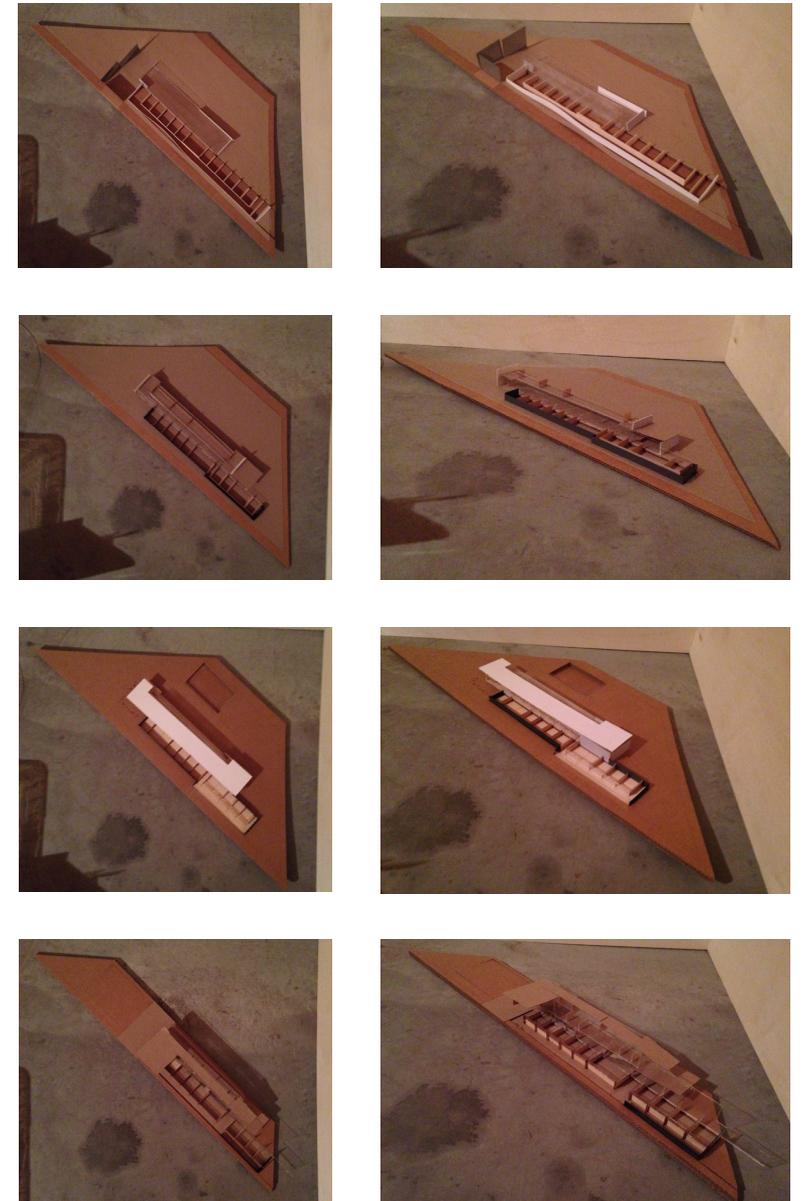
something else. This allowed the layers to permeate the width of the building in addition to the length. Through this, the spaces started to combine and extend.

Considering how the architecture could flow and create a flexible, blending of spaces led to the development of layers and spaces that sunk and pooled within it. This was present in the commons area, several classrooms, and the gymnasium.

By layering back and forth into the ground, as well as above it, different levels of clarity begin to appear. The most recessed areas are the least affected by the train because they are the most protected. These areas are also affected differently by light.

From this, the building began to incorporate preserved planar elements. A rhythm was developed through the regularly spaced structure. The use of drama between spaces served to create the differences, as well as the spatial and light qualities. The building grew vertically, with movement extending throughout the building, as well as outside. The structure serves to remind one of similar spaces, and causes an overlapping because of memory.

As the design progressed, pathways became important. Some moved from being sheltered by the building on the far side of the train to near and exposed to it, while others changed conversely.





Planes continued to be offset, wall thicknesses changed, and areas opened up or closed through the further development of the building. A submerged hallway was removed while other areas were elevated.

As the design was finalized, focus moved to the drawings. It was important to attempt to show a cohesion between the idea and the design, and to articulate the position of the project within a larger framework. Showing how it evokes diffuse space allows for the drawings to communicate across a distance.

Allowing moments of clarity and the obscuring of spaces to be observed demonstrates the varying qualities of the building. The movement through the layers must also be shown. Another idea that should be observed through the drawings is the breaking of

FG51  
PROCESS MODELS  
1



FG52  
PROCESS MODELS  
2

the grid by the site, program and the building design. This allows the drawings to show the experience, in addition to the mixing and blurring of the program and people. The representation should show a mixing of light and shadow and how the program is combined in order to create a successful design.

These drawings were altered and further developed several times in order to demonstrate this as clearly as possible.

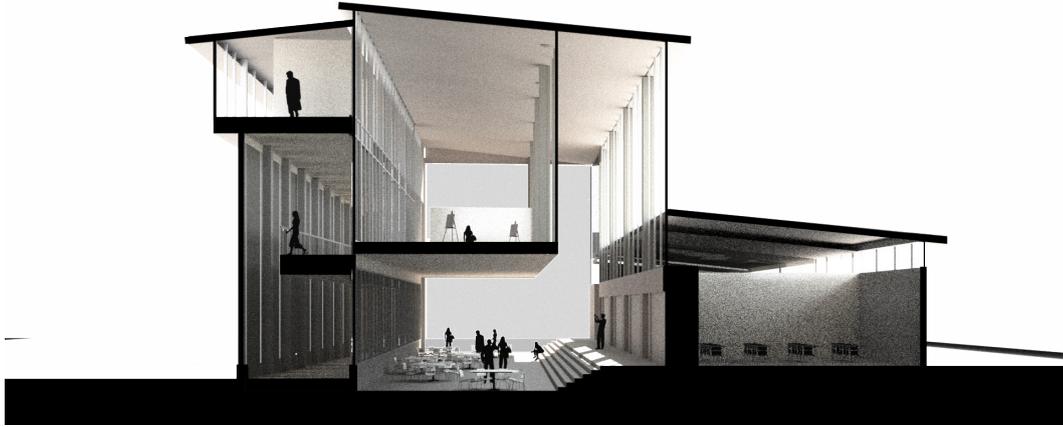


FG53  
CLASSROOM  
PROCESS RENDER  
FG54  
ART SPACES  
PROCESS RENDER  
FG55  
OFFICES  
PROCESS RENDER



FG56  
COMMONS AREA  
PROCESS RENDER  
FG57  
ENTRY SPACE  
PROCESS RENDER  
FG58  
HALLWAY  
PROCESS RENDER



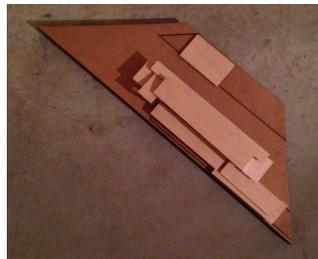
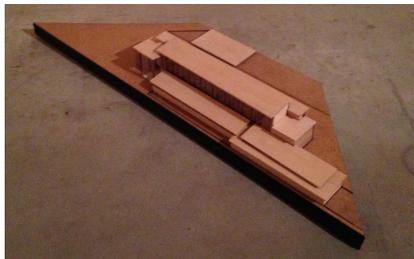


FG59  
BUILDING SECTION  
PROCESS RENDER  
1



FG60  
BUILDING SECTION  
PROCESS RENDER  
2

# Project Solution Documentation



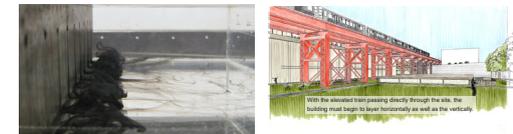
- FG61  
FINAL MODEL  
AERIAL  
PERSPECTIVE
- FG62  
FINAL MODEL  
TOP VIEW
- FG63  
FINAL MODEL  
PERSPECTIVE
- FG64  
FINAL BOARDS



THROUGH THE DESIGN OF ARCHITECTURE

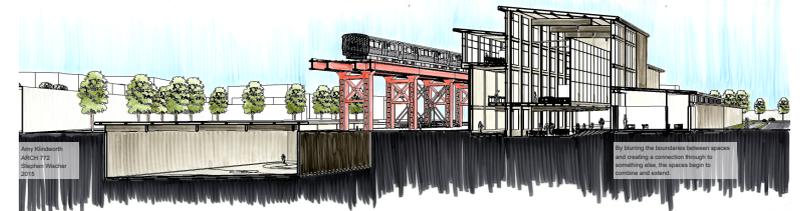
Philosopher Jonathan Proulx argues that current culture and society are engaging a utopian ideology. This model began in the 18th century when the educational system sought to reduce all knowledge to a single context. At the same time, figures such as Bartolomeo Camparola created top-down educational models which based out the importance of learning through an experience of the world. Recently, the universal model of education has been criticized by many, including Marshall Auerbach, who claims that the current autonomous learning approach only responds to politics, and that learning does not equal education.

This thesis examines how architecture can challenge the existing machine-like view of education in the design of a school in Wicker Park, Chicago. Through the use of diffuse spaces, the architecture challenges the clear, surface thinking of a typical school and instead creates an atmosphere where the imagination can come to life.



With the assembly line passing directly through the site, the building must begin to peel horizontally as well as the vertical.

Inspired by the mechanistic, utopian educational system originating in the 18th century, I created a spatial machine that challenges clear bounded rooms by cultivating obstacles and dreams. This led to the architecture becoming diffuse and containing indeterminate spaces, with the boundaries between them beginning to blur, and the spaces extending throughout the entire building.



By blurring the boundaries between spaces and creating a continuous through to something else, the spaces begin to connect and expand.

Any Plans  
All 2172  
Steven M. M...  
2014

# Performance Analysis

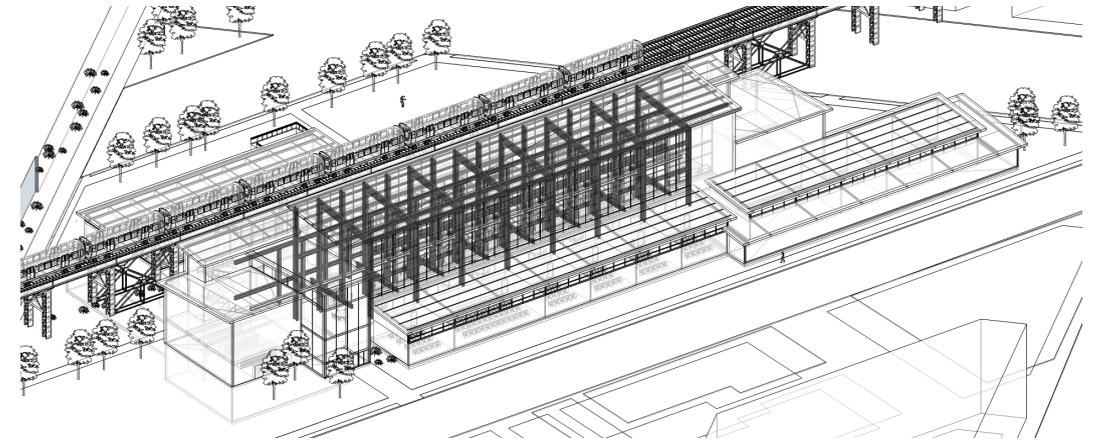
The final design of the building was influenced by many things, including the site, typological research, program, overall goals and project emphasis.

## RESPONSE TO THE SITE

The location, size, shape, and conditions of the site were determinants in the design.

The position of the site is at a place where the grid of the city is transversed. This gives it the shape of a trapezoid. In order to maximize the usage of space, the building becomes linear. This implies speed, while my artefact suggests slowness. In order to mitigate this, I broke up the facade in many ways.

I began with creating many different vertical layers. The portion that contains the art spaces and commons area is the tallest and is located centrally. The surrounding spaces have varying heights. The



FG65  
BUILDING  
STRUCTURE

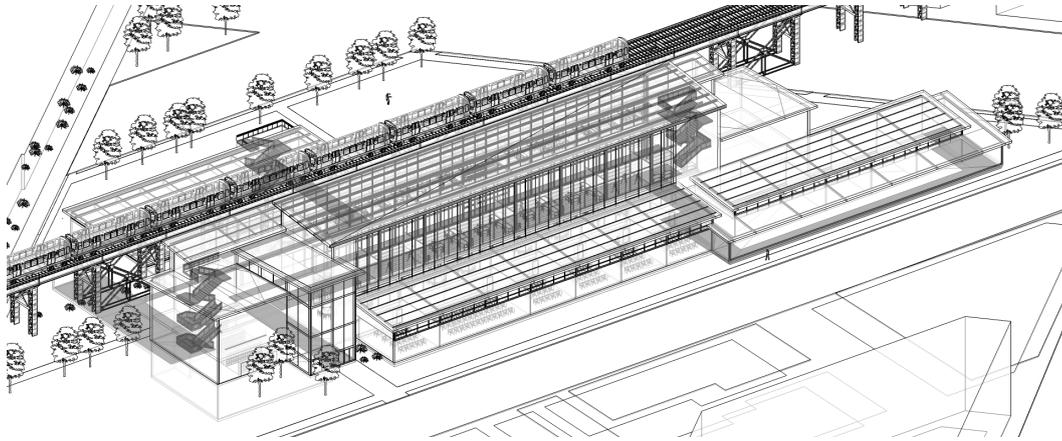
roof planes slope in alternating directions and are different sizes which helps create a variance.

Using multiple materials also breaks up the surface. While some portions are concrete, others are metal paneling. Large glass sections are present, which are broken up visually with the large structural steel elements.

The size of the site also influences the design. The amount of space available limits the programming and number of students who can attend.

The shape of the site further informed the building. Because it is a trapezoid that is split in the middle, the building must have two portions which are on either side of the train.

The elevated train which passes through the site



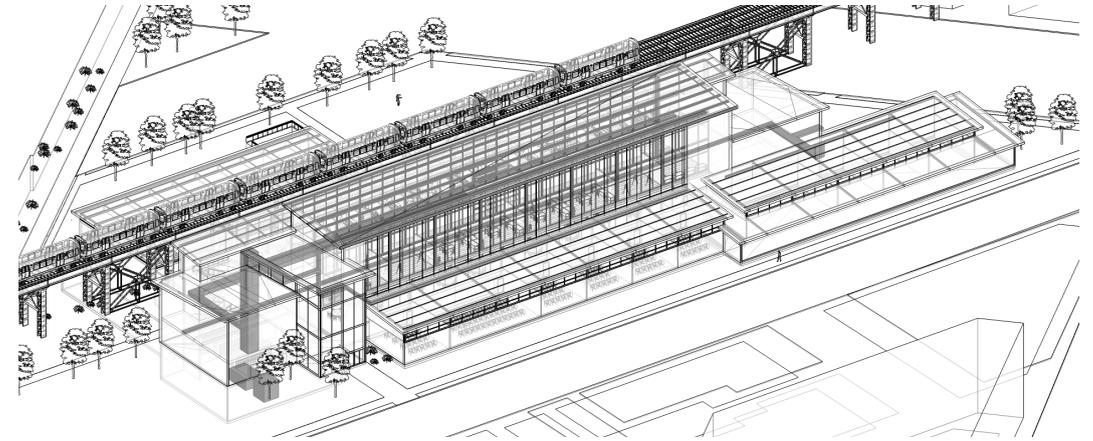
FG66  
BUILDING EGRESS

lengthwise defines many aspects of the project. The railway and its structure eliminates the usage of the middle of the site. An access road is also required next to the train on its west. In order to use both sides of the site, an underground tunnel was developed which leads to the gymnasium. This space also has direct access to the exterior. By creating these layers widthwise, the design premise is also considered.

#### RESPONSE TO THE TYPOLOGICAL RESEARCH AND PROGRAM

Being a high school and community arts center, the purpose of this building is to teach. In order to create an environment which was conducive to learning, I researched the sizes that classrooms should be. This is one aspect that remained constant through the design process.

An element that was removed due to size constraints



FG67  
BUILDING HVAC

was the auditorium. Instead of creating a separate space, it was determined that the gymnasium could serve multiple purposes.

#### RESPONSE TO GOALS AND PROJECT EMPHASIS

The goals that were determined at the beginning of the project were considered throughout the process. This included incorporating theoretical thinking into a design.

By creating spaces that are indeterminate, one's imagination is triggered. This helps create an atmosphere which is different than a typical school.

# Digital Presentation

## Living Utopia

challenging education as a machine through the design of architecture

- Utopia  
'ou' + 'topos'  
not +place

### Plato



### Thomas More



- "This sketching of a polity, this giving of eidetic content to the word "polity" is what makes it possible for us to think of polities as configurable systems of analyzable parts."  
– Jonathan Powers

### Tommaso Campanella



- 1568-1639
- *City of the Sun*



- Imagery as teaching
- All human knowledge can be represented eidetically

### John Amos Comenius



- 1592-1670
- Created basis for current educational theories, practices and concepts
- Real or visual representations as teaching method
- Realization of utopia on earth

- Envisioning an entire city as the concrete image of a compendium of human knowledge, Campanella assumes that the totality of human knowledge can be represented eidetically and that such representations can be fully integrated into a city, socially as well as architecturally."  
– Jonathan Powers

- "The visible world is not a source of knowledge: attention to the visible world is knowledge."  
– Comenius
- "If the educational ideal is realized, the world will become utopia, full of order, light, and peace."  
– Comenius



- **World City**
- Circular design
- Disorderly

### Utopia as a Machine



- Components all work independently and automatically
- Original purposes forgotten

- "...the mechanical is not something that acts without purpose but something whose purpose can be forgotten."  
– Powers
- "Comenius's pedagogy relies on an automatic eidetic equivalence that passes over the unfathomable gaps between seeing, saying, and knowing without acknowledging them."  
– Powers
- "...the capacity to develop a reflex, reaction, or attitude that forgets its original purpose."  
– Powers

## Living Utopia

## Hannah Arendt



- 1906-1975
- Crisis of Education
  - Teaching portions of the world instead of entirety
- Crisis of Culture
  - Entertainment rather than culture

- "Architecture has been increasingly understood as a rationalized, secularized, and visual artform." -Pallasmaa
- "...fully technologized high-tech architecture based on pure utilitarian and technological reason, and aspiring to turn reason into aesthetics." -Pallasmaa



## Alberto Pérez-Gómez



- "The making of the arts has always conveyed in their specific universes of discourse, not 'information' but true knowledge."

## Juhani Pallasmaa



- 1936-present
- Imagery has perceptual and emotive power



## Alfred Jarry



- Pataphysics is technology which may have a deeper meaning
- Science argues against science

- "Dynamic vagueness and absence of a focus are also the conditions of our normal system of visual perception..." -Juhani Pallasmaa
- "Visual space thus turns into an embodied and existential space that is essentially a dialogue and exchange between the space of the world and the internal space of the perceiver's mental world."



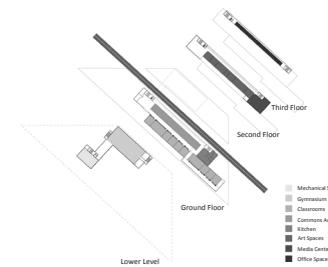
## Pruitt-Igoe



## Educational System



- Reductive
- Utopian
- Machine-like





# THESIS APPENDIX

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# Previous Studio Experience

## 2ND YEAR

fall 2011

rhet fiskness  
Tea House, Fargo, ND  
Boat House, Minneapolis, MN  
stephen wischer  
Twin House, Fargo, ND  
Center for Music, Fargo, ND

spring 2012

## 3RD YEAR

fall 2012

steve martens  
Lodge, YMCA Camp Cormorant, MN  
Mortuary, McCauleyville, MN  
milt yergens  
Living/Learning Restaurant, Fargo, ND  
Oil Interpretive Center, Ross, ND

spring 2013

## 4TH YEAR

fall 2013

david crutchfield  
Highrise, San Francisco, CA  
Convergent Communities Tower  
steve martens  
Historic Re-Use, Fargo, ND  
International Food Court

spring 2014

## 5TH YEAR

fall 2014

ganapathy  
Wind Study Research, Billings, MT  
mahalingam  
Scheels

spring 2015

stephen wischer  
Thesis Project, Chicago, IL  
Living Utopia

# Personal Identification

FG68  
SELF PORTRAIT



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