FROM CANVAS TO EXPERIENCE:
Painting as Essential to the Architectural Process
“I don’t say all buildings are architecture, first of all. So there’s lots of buildings that have nothing to do with architecture. They have to do with economics, they have to do with enclosure, but I wouldn’t consider them works of architecture. To be a work of architecture is creating a work of art.”

Richard Meier
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THESIS STATEMENT

This thesis explores the potential of artistic exploration in the medium of painting to inform and elevate the contemporary design process.
ABSTRACT

Architecture has historically been closely allied with the fine arts of painting and sculpture, but recently, that connection has been drifting further and further apart. Painting is a powerful medium that allows the artist and the viewer to explore light, color, dynamism, form, and even the very nature of their own souls. In learning painting techniques and exploring the range of creation within a canvas, an artist learns certain principles that he may then bring to other disciplines. One discipline that is lacking enough of painting's influence is architecture.

There are more than enough horrible buildings in the world with no artistic nature. Architects still see architecture as an artistic field, but how can one create artistic buildings unless one makes art? Analytically-based design, while valid, can be enriched by following an intuitive process like painting in order to create an experientially-based design. In particular, form and the idea of the architectural promenade can benefit greatly from a "right-brain" design methodology.

It is no coincidence that the best architects were, in fact, painters. Le Corbusier, Vladimir Tatlin, Gerrit Rietveld, Theo van Doesburg, Zaha Hadid, and Steven Holl are the epitome of what architects should be striving for. These painter-architects often thought of themselves as painters first. Thus, their works embody the true spirit of architecture. This thesis will delve into the methods these designers used to create architecture and the possibility of what lies ahead.
PAINTING AND MODEL OF CONCEPT BY AUTHOR.
INTRODUCTION: ARCHITECTURE VS. CONSTRUCTION

In the past, architecture being intertwined with other disciplines was the norm. From Michelangelo and Giotto di Bondone to Gian Lorenzo Bernini or El Greco, architects were often already painters and sculptors, bringing their knowledge and craft into the world of architecture. More recently, the Bauhaus, stemming from the Arts and Crafts movement, vehemently believed in the intrinsic connection between all the arts, including architecture and painting. Even now, competitions like the Fairytale Competition strive to bring non-traditional methods of representation like painting back to let architects have a chance at not losing their artistic roots. Why? It is because this artistic nature, while prevalent in some truly great architects throughout modern history, has as a whole been lost.

Oxford dictionary defines architecture as “the art or practice of designing and constructing buildings”. This thesis is profoundly arguing for the “art” component of that definition. A building is not and cannot be considered architecture unless it is a work of art. To produce works of art, architects must be artists. The world is riddled with poorly designed, bland buildings. From car dealerships to strip malls, truly horrendous designs litter the streets with no thought of light conditions or spatial experiences, let alone artistic value. There are, of course, many amazing buildings that stem from an analytical, plan-based design, but that is only one methodology, and it can be greatly enriched by being combined with a separate, creative practice.

In order to explore just how painting as a design method can be used to create architecture, it is important to look at some of the greatest painter-architects and their diverse palette of methods.

ANALYSIS OF TECHNIQUES

The next sections will focus on these painter architects, looking at their ideas about the connection of architecture to art as well as specific examples of how they used paintings to produce architecture.
COLOR + FORM: LE CORBUSIER

LE CORBUSIER'S IDEAS ON ARCHITECTURE

Charles-Edouard Jeanneret, better known as Le Corbusier, was a self-taught Swiss-French architect. At the age of 13, he attended the École des Arts Décoratifs, where Charles L'Eplattenier "taught him art history, drawing, and the naturalist aesthetics of Art Nouveau". He then traveled, discovering aspects of architecture that impacted him for the rest of his days, including "contrast between vast collective spaces and 'individual living cells'", classical proportion, geometric forms, light, and landscape use. In his architectural career, one of his greatest contributions was the Maison Dom-Ino concept with its structural frame and no load-bearing walls (and free plan), freeing up architecture from some of the constraints of construction. In fact, Le Corbusier also argued for a distinction between architecture and construction, saying,

"Architecture is a thing of art, a phenomenon of the emotions, lying outside questions of construction and beyond them. The purpose of construction is to make things hold together; of architecture to move us." 4

He does not say that construction techniques are unimportant; in fact, he says, "It is quite true that the architect should have construction as least as much at his fingers' ends as a thinker his grammar. ... but he should not vegetate there." 5 He adds, "You employ stone, wood, and concrete, and with these materials you build houses and palaces. That is construction. Ingenuity is at work. But suddenly you touch my heart, you do me good, I am happy and I say: 'This is beautiful.' That is architecture." 6 Therefore, the difference between construction and architecture for Le Corbusier is that architecture has the power to provoke emotion in its artistic quality. At the same time, though, even though he appreciated construction, "the degree to which Le Corbusier's architecture does not represent technology and construction is the measure to which it resists the categories found within the historically-constructed Modern Movement. This he achieves by consciously bringing his architecture into conformance with his aesthetic theory of Purism." 7

1. Françoise Choay, "Le Corbusier," Encyclopædia Britannica,
2. Ibid.
3. Mark Careaga, "Le Corbusier and the Non-Representation of Technology", Medium
5. Ibid., 215-217.
6. Ibid., 153.
7. Mark Careaga, "Le Corbusier and the Non-Representation of Technology", Medium
CAREER AS A PAINTER

Le Corbusier always wanted to be a painter, becoming an architect instead at the suggestion of L'Eplattenier. He later founded the Purist movement along with Amédée Ozenfant, advocating "the return to order and harmony by means of simple, geometric forms and broad expanses of pure color." One of his most notable built works of this time was the Villa Roche (see page 32 for the Case Study). In Figures 1-4, it is clearly evident how the geometric forms, both rectangular and curved, and color were transferred from the still life paintings into the built work. The distillation of still lifes into more pure forms was an important step to transferring art into architecture; primary forms such as cubes, spheres, and cylinders "elicit in the observer universal, fixed sensations," which root the art in a "transmittable and universal language." Secondary forms such as "man [and] the beings organized by and the objects fabricated by man" keep the art from being ornamental because they "depend upon [the individual's] cultural or hereditary capital." These secondary forms include objects such as "boats, cars, arms, and musical instruments." It makes sense then that these are the subjects chosen by both Le Corbusier and Ozenfant for still life studies. It is the mathematical nature that links art to architecture. These objects are part of a "mechanical selection" akin to evolution that contain "curves of a mathematical order, curves of the greatest capacity, curves of the greatest strength, curves of the greatest elasticity, etc. These curves obey the laws which govern matter. They lead us quite naturally to satisfactions of a mathematical order." This intellectual/mathematical order must be present in the art (and later the architecture) because "one of the highest delights of the human mind is to perceive the order of nature and to measure its own participation in the scheme of things."
7. Le Corbusier, Bubble-diagrams of communal services for the Unite de Habitation, 1945, Are.na, https://www.are.na/block/2675734
Post-Purism Development of Ideas

Post-Purism, Le Corbusier’s style evolved; in the 1940s, he “began the Ozon, Ubu, and Taureaux series”\textsuperscript{18}. His “simple, geometric forms grew more complex, the colors more raw, and the subjects renewed”, even producing “sculptures, enamels, engravings, tapestries, murals and photographs”\textsuperscript{19}. This had a profound effect on his architecture. Notre Dame du Haut, or Ronchamp, boasted an incredible form, as well as colorful light wells. Instead of stained glass, colored or clear glazing is used in the puncture-like windows (see Figure 6). Le Corbusier actually put one of his artworks into the architecture (see Figure 5). Later, he developed a comprehensive color theory (Figure 7). Of this color theory, “Christine von der Linn, a senior specialist at Swann says, ‘It outlined color in a very systematic theoretical way. Light, dimension, supporting walls, and accent walls all go into designing a space. Color is like an architectural addition to the room—you can manipulate reaction to a space and how it feels with pigment just as much as if placing a window or and beam’”\textsuperscript{20}. Eventually, he goes all the way as to implement use his color theory to actually paint the architecture itself, as in Chandigarh (Figure 8).

\textsuperscript{18} Deborah Lenahan, Educational Guide: The La Roche House, Fondation Le Corbusier,
\textsuperscript{19} Ibid.
\textsuperscript{20} Diana Budds, “Le Corbusier’s Color Theories, Explained”, Fast Company
PROPORTION, GEOMETRY, + MEANING: VLADIMIR TATLIN

SUPREMATISM

Malevich brought about an artistic revolution through what he called Suprematism (stemming from the Latin supremus, meaning highest1), evolving from cubism to a non-objective, abstract style of art based upon the supremacy of pure artistic feeling2. It focused on geometric forms with little range of color, and was art for art’s sake3 (See Figure 5). In his book, Malevich wrote that “In the year 1913, trying desperately to free art from the dead weight of the real world, I took refuge in the form of the square”4. In the exhibit, his painting of The Black Square was placed in the krasnii ugo, the red corner. This is where traditionally, a Russian Orthodox icon of a saint would be placed5. This was very deliberate and very emblematic of Malevich’s movement; this was meant to be important and spiritual and transcending art as we knew it.

CONSTRUCTIVISM

In a revolution-minded Russia, the avant-garde was challenged, and a new style began to emerge called Constructivism6. This era in Russia’s history was largely based on practicality and assisting with the needs of the state rather than personal feelings7. A large part of what art was used for became advertising, with red (being the color of the Communist Party) used as a dominant color8. Husband and wife Alexander Rodchenko and Varvara Stepanova were among the leaders of the Constructivist movement; even replacing the word artist with “constructor”9. Emblematic of the Constructivist movement was Vladimir Tatlin’s Monument to the Third International, being a piece of Constructivist architecture (see Case Study on page 29).

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1. Anya Vcherashniaya, “Suprematism. Kazimir Malevich and his Love Supreme,” Art Hive,
2. The Art Story Contributors, “Suprematism Movement Overview and Analysis,” The Art Story,
3. Ibid.
5. Anya Vcherashniya, “Suprematism. Kazimir Malevich and his Love Supreme,” Art Hive,
6. Tracee Ng, “Constructivism Movement Overview and Analysis,” The Art Story,
7. Ibid.
8. Ibid.
TATLIN'S PAINTINGS AND ARCHITECTURE

On the problem discussed in this thesis, Vladimir Tatlin had this to say:

"...every connection between painting, sculpture and architecture had been lost: the result was individualism, i.e. the expression of purely personal habits and tastes; while the artists, in their approach to the material, degraded it to a sort of distortion in relation to one or another field of plastic art."

He believes that in order for architecture to be something greater, to speak to the masses, it must not be individualistic. That universality comes from the connection between the arts he mentioned. Of course, Tatlin wanted art to be used for the goals of the Communist Party, but his works speaks past just those goals. He "received formal art training in Russia at the Moscow School of Painting, Sculpture and Architecture, where he met other leading artists and designers", but soon began to question traditional painting methods. His Monument to the Third International "crystallized his desire to bring about a synthesis of art and technology", and his paintings from before its conception show where his inspiration came from. In "Forest" (Figure 1), he explored the idea of reaching to the heavens. In "Model" (Figure 2), he not only started his fascination with curves (note how the steel curves around the tower in the Monument) but also was able to master proportion. The seated model, compositionally, has the same proportion as the tower, though the latter was at a much larger scale. "Relief" (Figure 4) was part of a series of relief structures, which "were not only creative for their innovative use of materials, but their unorthodox positioning. Tatlin would use geometric-shaped pieces of wood and metal to create his unique structures." The leaning nature of the Monument as well as a start for testing materials was first seen in "Relief". Inside the Monument, there was a "cube, pyramid and cylinder, which would rotate at yearly, monthly and daily intervals" (seen more clearly in Figure 6). These very clearly had Suprematist influences.

11. Julianne Cordray, "Vladimir Tatlin Overview and Analysis," The Art Story,
12. "Vladimir Yevgrafovich Tatlin," Art Experts,
13. Julianne Cordray, "Vladimir Tatlin Overview and Analysis," The Art Story,
14. "Vladimir Yevgrafovich Tatlin," Art Experts,
15. Ibid.
LINE-PLANE AND COLOR / DE STIJL: GERRIT RIETVELD AND THEO VAN DOESBURG

DE STIJL MOVEMENT

Led by painters Theo van Doesburg and Piet Mondrian, the “Netherlands-based De Stijl movement embraced an abstract, pared-down aesthetic centered in basic visual elements such as geometric forms and primary colors”1 (See Figure 1). This movement influenced many other art forms, including architecture2. Arguably, there was only one realized work fully built in accordance to De Stijl principles: the Rietveld Schroder House3 (see case study on page 34) by Gerrit Rietveld. Some of the most recognizable aspects of De Stijl that can be seen in the built work as well are line-plane relationships (vertical and horizontal lines leaving room for planes in between) and primary colors (as well as black and white).

GALERIE DE L’EFFORT MODERNE: COLLABORATION BETWEEN ARTIST AND ARCHITECT

Artist van Doesburg "believed that art should be an absorbing, spatial, and environmental experience", which led to him venturing into architecture. Theo van Doesburg and architect Cornelis van Eesteren collaborated to create La Maison Particulière and La Maison d’Artiste "for an exhibition featuring the De Stijl group at Galerie de L’Effort Moderne"5 (see Figure 4). Van Doesburg “sought to highlight the spatial and temporal dynamism using form and color”6. Together, they “disassembled the traditional cube and developed the Maison Particulière as a series of a-hierarchical planes composed of primary colors, without distinction between front and back, top and bottom”7. As the “anti-cube”, this project development would have never happened without van Doesburg’s radical ideas within De Stijl. In “Rhythm of a Russian Dance” (Figure 3), he painted in short or long bursts how he felt the dancers moved, but always in vertical or horizontal motions8. This allowed him to explore how space could expand and contract, and although it was a bit of a departure from the strictness of De Stijl, this allowed the unbuilt work of the Maison Particulière and Artiste to be fluid, pushing the boundaries of time and space within architecture9, while at the same time using the color palette and vertical or horizontal planes.

1. Justin Wolf, “De Stijl Movement Overview and Analysis,” The Art Story,
2. Ibid.
3. Megan Sveiven, “AD Classics: Rietveld Schroder House / Gerrit Rietveld,” ArchDaily,
4. The Art Story Contributors, “Theo van Doesburg Artist Overview and Analysis,” The Art Story,
5. Joanne K. Cheung, “Theo van Doesburg and Cornelis van Eesteren: Maison Particulière (Private House),” Medium,
6. Ibid.
7. Ibid.
8. The Art Story Contributors, “Theo van Doesburg Artist Overview and Analysis,” The Art Story,
DYNAMISM: ZAHA HADID

BEGINNING AS A PAINTER

Zaha Hadid founded her architectural practice in 1980 but was denied commissions for more than a decade. In fact, in those days, she was known as a paper architect, "whose drafts never make it off the drawing board." She was first and foremost a painter, inspired by the Russian avant-garde, particularly Malevich; his abstraction, she thought, was inspiring in terms of combing art and architecture. Hadid believed that abstraction "could propel creative work to previously unheard levels of invention." Her paintings boast incredible levels of detail; one was "painted using 500 colors mixed in tiny Kodak film capsules." Work that looks like repetitive cells is too small to see in reproduced photos yet never actually repeats. Her paintings are mesmerizing, distorted yet spatially clear, with the perspectives being "freehand rather than mechanical, reflecting the lightness and dynamism that informed a vision that challenged both reality and representations of reality." These "vibrant explorations of deconstructivism and futurism", stemmed from her "roots as a mathematician." Zaha Hadid pushed the boundary of what was architecturally possible through her paintings and was extremely innovative technologically. However, she too saw the problem emerging in today's technologically-centered world. Hadid said,

"What's very sad is that thousands of years of perfecting drawing disappeared in 20 years. Of course, we can do things much better now on a computer. But the artistry has gone."

BRINGING PAINTINGS TO LIFE: VITRA FIRE STATION

The Vitra Fire Station was Zaha Hadid's first major built work; she was able to show that she wasn't just a "paper architect." In her studies for it, "Hadid's paintings materialize and freeze the movement of the work, tracing the plan's emerging and inter-connected walls, and giving a sensation of suspense before imminent movement" (see Figure 1). It was the flexibility inherent in painting that gave her the freedom to design the way she did; her work would not have been as dynamic without it. By sticking to "aesthetic simplicity" in the architecture, it could more closely resemble her painted study. Her painting feels like it contains movement; in the architecture, different angles and lines in the pavement as well as volumes that feel like they're "sliding" bring that sense of "frozen movement" into reality.

1. "Zaha Hadid on the perils of paper architecture", Phaidon.
2. Ibid.
4. Ibid.
6. Ibid.
7. Ibid.
11. Danae Santibañez, "The Creative Process of Zaha Hadid, As Revealed Through Her Paintings", ArchDaily
12. Ibid.
14. Ibid.
STEVEN HOLL'S WATERCOLOR PAD

Steven Holl says he always starts designing a project "...the same way. Me, alone, my little watercolour pad in front of me, at five thirty in the morning, trying to come up with some concepts"\(^1\). He used to work in pencil, but since that took him 8 hours to do, he started doing 5x7" watercolors so that he could easily travel with them\(^2\). Holl now has over 30,000 of them, saying,

"Because I use a watercolor wash right at the beginning I'm forced to integrate the direction of the light and how it moves in the space. It's how I get a feel for the light and it's how I design with it. No matter what my first concept is about the design, light is always there."\(^3\)

For him, ease of travel as well as the ability to study light is the benefit of starting a design in watercolor. He says, "With the watercolor, in the quickest way, I can shape a volume, cast a shadow, indicate the direction of the sun in a very small format"\(^4\). In the Kiasma Museum of Contemporary Art (Figures 1 and 2) and the Vanke Center Shenzhen (Figures 3 and 4), one can see how his perspectival watercolors result in very closely matching built work. Two-dimensional studies in plan and section are far more common in the architectural world, so Holl makes his work unique by designing from the basis of how a visitor would experience the architecture: phenomenologically, in perspective. Like the rest of the architects explored in this thesis, Holl does not argue against technology; he knows that "digital tools are essential to the practice of twenty-first-century architecture, but he worries that architects who don't draw enough are missing out on the vital connection between hand and mind. 'We're losing the sense of craftsmanship for certain things. We're losing knowledge,' he says."\(^5\)

\(^1\) Kim Megson, "Revealed: Steven Holl's world of watercolours," CLADglobal,
\(^2\) ArcSpace, "Steven Holl: Watercolors", ArcSpace,
\(^3\) Robert Martin, "Steven Holl Interview," ArcSpace,
\(^4\) ArcSpace, "Steven Holl: Watercolors", ArcSpace,
\(^5\) Ibid.
ARCHITECTURAL PROMENADE: ALFRED HITCHCOCK

STORYBOARDING

Filmmaker Alfred Hitchcock was no architect, so his work might at first glance seem out of place. However, he was “very much conscious of the architectural plan and its role in a scene. That isn’t to say he put great store by the ideological or functional implications of the plan. Rather, he used it as a blueprint on which to plot a film’s psychological content and choreograph its dramatic movements”¹. His storyboarding is famous, and for good reason; he depicts a narrative, something that is often overlooked in architecture “because of its subtlety with everyday life”². Wahid and Atmodiwirjo argue that architecture students must learn storyboarding because a “storyboarding exercise to represent urban architectural settings will enhance the students’ sensitivity of space, time, and how their ideas are being told by making a rich, multi-layers of narrative”³.

BLACK AND WHITE STORYBOARDING: LIGHT AWARENESS

Figures 1 and 2 when grouped with Figure 3 show how a storyboard can make its way into a film’s reality. Although the reality ended up being darker than implied in the storyboard, light was still studied very intricately in the design process. This process is very architectural in nature and is similar to the work of Steven Holl.

THE ARCHITECTURAL PROMENADE

The architectural promenade engulfs all of the phenomenological reality of human life. Spatial awareness is key in the design process, and architectural work in reality is not experienced like it is in plan. An architectural sequence is how the user experiences built work, so storyboarding is a useful task to understanding that narrative. Painting offers the designer an opportunity not often gleamed through computer-focused design, as it can better capture the “feel” of a space.

². Rahman Wahid and Paramita Atmodiwirjo, “Storyboard as a Representation of Urban Architectural Settings,” SHS Web of Conferences,
³. Ibid.
CONCLUSION

THE DIGITAL AGE

Technology can absolutely be used to help architecture, and it has taken architecture to extreme possibilities. It is a useful tool, but it is not the only tool, nor should it be. There is a reason why historically, painting and other artistic mediums were taught side by side with architecture; the hand has a powerful magic to create. Nowadays, though, architects barely draw, let alone paint. There must be a movement to bring back that creativity that painting offers.

THE BENEFITS OF PAINTING AND CONNECTION TO ARCHITECTURE

There are many benefits of painting during the design process. For example, one can learn the structure and composition of space, as well as studying depth, line-plane relationships, and proportion. In studying painting in architecture school, "Students are able to grapple with the optical push and pull of color, value, and figure/ground relationships in a manner congruent to formal and spatial design." Color theory especially is almost impossible to fully grasp unless one has sat down and mixed the colors themselves. In choosing colors, many simply select the color from a menu on the computer. There is also the tactile nature of working with paint; it deals with gravity, is harder to control, and forces the artist to be deliberate and slow. There is no "undo" option; a painting is unapologetic and forces the artist to live with their choices. Of course, painting also has a meditative quality to it, which can bring a transcendent quality to the architecture.

1. Aaron Collier and Tiffany Lin, "TACTILE FOCUS: The Reciprocity of Painting & Architecture," Tulane University,
WAYS TO BRING PAINTING TO FUTURE DESIGN, RADICALLY: PAINTING AS USED IN MULTIPLE STEPS IN THE DESIGN PROCESS

This thesis, in the vehicle project, will explore the different methods used by the architects previously discussed and will attempt to bring painting into every step of the design process, particularly in the form of the architectural promenade, which is, in a way, a sequence of paintings to walk through. These are the ways found in the thesis of transferring paintings to architecture:

2. Literally painting on the architecture itself, as in Chandigarh or inserting the artwork as an accent piece (i.e. the door at Ronchamp)

3. Taking 2D forms from the artwork and transforming them into 3D space
   a. i.e. painted shells and mollusks turning into the scupper at Ronchamp
   b. taking ideas of curves, shapes, proportion, or color to influence the form of the architecture (i.e. Tatlin or Villa Roche)

4. Poetic ideas
   a. i.e. Zaha Hadid's ideas of "frozen movement", dynamism, then figuring out a way to make it possible through real materials

5. Phenomenological design/ Plane differences of Space
   a. i.e. Steven Holl/Hitchcock, perspective. Design for the experience of the user, light study
   b. i.e. Line-plane and color, i.e. the De Stijl projects
   c. i.e. Villa Roche, architectural promenade
Precedents + Case Studies
El Lissitzky, a Russian avant-garde artist and architect, helped his mentor, Malevich, to develop suprematism and was a huge influence on the constructivist movement. Developing his own 3D style based on his love of architecture, he produced a suprematist series of paintings known as "Proun". He later defined Proun as "the station where one changes from painting to architecture." A rotated cube connecting two lines that are the primary colors red and blue is hovering above a grid disappearing into the distance. On the right is the author’s attempt at copying Lissitzky’s painting in the 3D modeling software Rhino. While there are obvious differences, like how the cube is so much more dynamic and in the foreground in Lissitzky’s work, it is very interesting how ahead of his time he was, perhaps even predicting the creation of architectural software. An exhibition room was created, bringing the idea of the proun into the real world.

These two paintings are both called Painterly Architectonic, 1918. Out of all her “architectonic” works, these two are the most convincing. Both have polygon shaped planes that intersect with each other and create a strong dynamic, three-dimensional image. These artworks from Popova have superb shading and mastery of color. They feel so dynamic and feel as if they contain a whole architectural space one could walk through, one that is strong and futuristic. There is no doubt Malevich’s suprematism was influential in Lyubov Popova’s development of these, but she really took it to the next level. There is a degree of transcendence of even the world that Suprematism exists in, a whole new three-dimensional experience. These paintings give a hint of what painting can truly bring to the world of architecture. By experimenting with planes on a two-dimensional surface, one can truly construct a building that is a work of art worthy of being considered architecture.

Constructivism wasn't just limited to the two-dimensional, such as paintings and advertisements (to the left is a well-known example of constructivism, above, and suprematism, below it). It also led to something called constructivist architecture, which is combining architectural ideas with the needs of communism and the state. Vladimir Tatlin was a very influential person to this movement. Suprematism was a higher view of reality, so he thought about how could one launch toward that higher view? The answer was architecture, through sculptural experiments.

His most famous design was the unbuilt Monument to the Third International. It was designed to be around 400 meters and to be built in Petrograd (St. Petersburg) as the headquarters of the Comintern, or the Third International. There are large rotating geometric shapes within the structure, which shows the suprematist influence, and even plans to install an open air screen on the cylinder and a projector able to cast messages on the clouds on an overcast day, which definitely would be propaganda related or serving the state. Structurally, people doubt that it would work. Since it has been built at 1:42 scale, theoretically, if money and availability of steel wasn’t an issue, sure the steel members would have to be extremely thick to support it, but theoretically it is possible as a structure, one that would be incredible and mesmerizing if it were realized. Connecting the ground with the heavens, it reminds one of the Tower of Babel. It’s fascinating how the most notable works from this time came from architects who were also artists, combing art and practicality and still making the public think about spirituality and what it all means.

A Butler Building is a pre-engineered steel construction building. There are many different programs that can see the benefits of this type of construction, such as shopping malls, warehouses, car dealerships, and more. It is often cheaper and faster to erect this type of a building. It is the antithesis of architecture.
There is no thought that goes into a building like this of qualities of space, or light conditions, or spatial experiences. There is absolutely nothing about a building like this that can be considered art. In only considering function and cost, and in making a factory-like process of developing clones throughout North America, these buildings cannot be considered architecture. There is no pride in developing a building like this; it is bland, but it does its job as a structure. This is exactly the sort of thing architecture must struggle against. Architects must put art into this world; there are enough engineers and other construction companies that push functionalist, monotonous structures into the built landscape.

What makes the Villa Roche so significant is its program: on the one hand, an art gallery, and on the other, a private residence. Raoul La Roche wished for a space to exhibit his collection of artwork. This building is a true spatial experience; a progression leads one through the Villa, unveiling a new experience at every turn, beginning with Cubism and ending with Purism. Each experience is meant to be seen from a single point. This was one of the first places in which Le Corbusier would use his later defined five points of architecture: free façade, free plan, ribbon windows, rooftop garden, and pilotis.
This work of architecture was part of Le Corbusier’s purist phase. It is absolutely incredible to see that the colors used in his paintings at the time directly correlate with the interiors of the Villa Roche. This case study is a great example of how painting does not need to be directly translated into a built form based on the subject depicted. Color theory, which can only truly be learned through experimentation and the less precise discipline of painting (by learning to mix colors and how different shades look adjacent to each other), is an invaluable skill to have in order to capitalize on how a space affects the viewer.

RIETVELD SCHRÖDER HOUSE
GERRIT RIETVELD
UTRECHT, NETHERLANDS
1924

De Stijl was a Dutch artistic movement that involved the reduction to the essentials of form and color. It dealt with only vertical and horizontal moves, as well as only using black, white, and primary colors. The Rietveld Schroder House was the only building to have been created completely according to De Stijl principles. Designed for Truus Schröder and her children, the house was a two-story building that had a transformable kitchen/dining/living area, studio space, and reading room on the first floor. The second floor was for bedrooms and storage and had portable partitions. These partitions meant that the space could be flexible. The use of beds for eight hours a night did not justify having a space solely designated for that use; this allowed for adjustable uses throughout the day. The collapsible walls around a central staircase could be pushed in during the day for an open play space and closed at night for private bedrooms. In accordance with the desires of the client, the children's beds could be moved in two positions; they also each had easy access to water and direct access to the outdoors.

This access to the outdoors was part of the primary goal of the building. It was about breaking open the stereotypical box of a building and making the distinctions of outdoor and indoor not as well-defined. Only vertical and horizontal planes were used; even the windows were hinged to only be able to open at 90 degrees. The colors were also very important. Using De Stijl principles of color, paint was used depending on the function of each space. For example, the front door was accessed the most and easily soiled; therefore, it was painted black.

What makes this building significant is that it took an artistic movement and brought it into the three-dimensional world of architecture. The building stands out from its conventional neighbors as a work of art. Through the moves made as a result of De Stijl, a flexibility and openness was promoted within the family for whom the house was built. This project is revolutionary, shocking, and exactly the perfect place for Truus Schroder and her children to have lived. The house makes no notice of its neighbors precisely because it aims to detach itself from the constraints of "regular" construction. The Rietveld Schroder house is a work of art that brings pride to the discipline of architecture.
Final Project
Program + Site
COMPETITION

This thesis is about a process that could be applied to any building, anywhere in the world. Therefore, an already available, current competition was seen as the ideal foil for exploring this process, taking site and program out of the hands of the author. The competition is not the focus of the project but rather a tool. Though many competitions were considered, eventually, the focus was narrowed down to one: Archasm’s Pop up bazaar Istanbul, as a bazaar instantly brings to mind ideas of color and cinematic movement.

POP UP BAZAAR ISTANBUL

Archasm’s “Pop-up Bazaar Istanbul” seeks the design of a contemporary version of the traditional market typology set in Istanbul, Turkey. A bazaar is a permanently enclosed marketplace or street where goods and services are exchanged or sold. Historically, it has been both open air and indoors, but always covered. The most famous example of one is the Grand Bazaar, a colorful progression through 61 covered streets and around 4000 shops. In a pop up bazaar, street vendors tend to bring their own goods, their own stands, but they need a designated space to set up. The site is on a flat, concrete slab above a subway station, which feels incomplete and at odds with the intense density of Istanbul.

Maps by author
SITE & AREA PROGRAM

The site for the intervention is located at the entrance plaza of the Yenikapi lstasyonu subway station.

Latitude: 41°00'20"N Longitude: 28°67'05"E

Following are the programmatic features that are to be provided in the proposal for the market. The size, proportions and number of facilities are left to the participant's discretion and imagination. Competitors are encouraged to design and propose any kind of innovative and intuitive program or function in addition and extension to the following list of functions, but with an argumentized necessity. Keeping in mind the paucity of space in today's times, explore the possibility of designing multifunctional and dynamic spaces. Here is a list of some exemplary spaces that the participants can follow:

Marketplace: The proposal must incorporate all necessary functions of a market space like display kiosks, storage units, shading devices, signage, lighting etc. The market structure and the type/volume of goods and services depend upon the designer's narrative. The market must however selt different types of merchandise and items to improve its own commercial viability.

Miscellaneous: The marketplace can serve as different entity when the primary function is not happening. It can incorporate miscellaneous functions like theatre, skating rink, football field, café etc. in the designated zone.

*Note- All these are exemplary areas for participants' clarity. The programming should be done under these broad categories, but they are free to adhere, ignore, add or subtract to any one of the specific functions with a valid argument based on their theme and design.

- All four entrance points to the subway station are to be retained on the site.

Please refer to the AUTOCAD drawing for the exact site location, size.
Here is a collection of site photos from Google, as well as a street elevation made by the author.
The following two pages are circulation diagrams made by the author.
Process
This is a collection of all the paintings done by the author for this thesis. Some dealt with site investigation, others dealt with proportion, density, figure ground, depth, color investigation, and free play. The final category was intersecting planes of perspectival space, which was largely what was most used in the final project.
This is a painting done by the author of the site in its context within Istanbul. The dotted white lines point to the subway lines, the black is water, the blue represents the major streets, the pale green represents parks, the brown represents concrete, and the tints of red represent building fabric.
Paintings 1 and 2 are shown here, with perspectival viewpoints found. Following is the final vignettes for both, and after that is the plan and axon on the site.
Paintings 2 and 3 also follow a perspectival viewpoint finding process, followed by vignettes and a plan/axon showing them together for the second intervention.
Paintings 5 also follows a finding of the vanishing point, but Painting 6 explores a different, plan-based approach to examining the painting. Vignettes and a plan/axon combination follow, showing the third intervention on the site.
This final, plan view shows all three interventions in context with one another.
Final Boards
Annotated Bibliography


This book offers an incredibly in-depth look at Constructivism, including work and words from the Constructivists themselves, such as Tatlin. Considering this movement had such a powerful influence on the rest of the world (including architects such as Zaha Hadid), this was useful in understanding their motivations as well as how they believed art could transfer to architecture. Constructivism was all about making art useful for the needs of the state, so it was by using it to make architecture that they could do that.


This documentary follows Zaha Hadid, examining her work, going all the way back to when she started painting. In it, she discusses the effect that Kazimir Malevich had on her work. For a more in-depth look at her process of abstraction and how her paintings have influenced her architecture, this is the video to watch.


This article talks about how art and architecture used to be so intertwined, but how they have lost touch over the years. Frank Gehry is then discussed to see how he has kept seeing himself as an artist; how has this affected his work?


This book is important to read through in order to get three knowledgeable people’s perspectives on the phenomenology of architecture. In order to argue for art to be necessary to create beautiful buildings, one needs to consider how architecture contributes to the experience and to consciousness. This will also be important for the vehicle project.


This journal article talks about how architecture affects all of the senses and discusses the "nonrepresentational" and "more than visual". These considerations used to be more prevalent in architectural history but now are not so stressed. There are parallels between the spatial motifs of the human body and architecture, and that is something discussed in this thesis; that is part of the geometry that is missing nowadays.

This article discusses what truly constitutes art and the distinctions between Kant’s mechanic and aesthetic conceptions of art. Pelino talks about what architecture should strive to be.


This journal article talks about Juhani Pallasmaa, the phenomenology of architecture, and multisensory perception. Pallasmaa talks about how hand drawing is a "vital spatial and haptic exercise in facilitating architectural design". Much like this thesis, this article talks about the combination of needing to consider material geometry and "immaterial emotion, feelings, and wisdom". Architecture is a necessarily artistic practice.
Bibliography

BIBLIOGRAPHY (IMAGES)


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BIBLIOGRAPHY (TEXT)


Jeanneret and Ozenfant. Purism.


Le Corbusier. Towards a New Architecture.


