

**Mediating Architecture, Spatial Perception & Memory Through
Simulation and Digital Fabrication**

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[Acknowledgements]

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I would also like to thank the Material Matters Lab for giving me the opportunity to work with a very creative group of individuals and learn a new way of thinking about research and knowledge-making. As well, my supervisor Keith Doyle who has been tremendously supportive in directing my work both in the lab and the studio.

Finally I would like to thank the University again for helping me to generate an awareness of the political landscape of this province. I'm grateful to have had the opportunity to learn that ECUAD is located on the unceded traditional territories of the Coast Salish peoples of the Tsleil-Waututh, Squamish, and Musqueam Nations, and that I live and work here as an uninvited guest. I'm excited and honoured to be able to partake in this decolonial practice and to bring this with me as I move forward.

[Introduction]

This work looks at the relationship between memory and architecture through the lens of technology. Memory and knowledge have become outsourced into computers and devices which can change our perception of reality, in particular the architectural spaces we inhabit. This research explores the following questions to a variety of degrees:

- > *What is the relationship between space, memory and technology?*
- > *What are the deeper impacts of simulations on our understanding of space?*
- > *How can a digital to analog process shed new light on the way digital culture has changed our perception of space?*

My process involves a constant back and forth relationship with the technology at hand. I reconstruct memories of architectural spaces using computer modelling, then force those models into analog mediums. I use mediation to emphasize the gap or fault in memory that occurs over time. My interest in these processes are largely a result of my life experience in working as an architect but being passionate about painting the observable world. I have been motivated to test the limits of technology in the workplace in designing buildings, as well as pushing the ability of software to represent highly realistic scenes.

In architectural rendering, the goal is to always create the proposed space in its most idealized form in order to sell a design. In contrast, I propose the use of rendering and 3d modelling to describe a kind of digital heterotopia in which a set of rules is derived from the restrictive conditions of computer aided creation. I want to achieve a transmutation within the viewer; to project themselves into this digital heterotopia. It is a distant reflection of a once real place filtered through layers of technological processing.

Thesis Exhibition Overview

This body of work that comprises the thesis project combines several different pieces shown as one installation. The space in which it is exhibited is bound by three walls and measures approximately twenty-five by twelve feet (*See fig's.1-4*).

The first element is a ground covering made of found carpet and spray paint. It covers the floor of the gallery at irregular angles. This element distorts the space with its own contradictory geometry. The pattern appears to be pink granite or terrazzo. It is a material that is recognizable as an architectural finish but lacking depth in its superficial quality.

The second element is a hanging drawing that creates a fourth wall that partially encloses the space. It is suspended above the floor by one foot and features a plotter-produced line drawing of stacked glass blocks in a blue-green color. The 'wall' is nine feet high by fourteen feet long. Each block is slightly larger than real life size. Some are faded and have irregularities from the plotting process.

The third element of the installation is a painting that features a scene which was first computer modelled and rendered, and then painted from that rendering. It depicts a chaotic array of architectural elements that cast shadows onto an artificially close backdrop. These architectural masses appear to be caught in a suspended state within a diorama like stage.

These elements create an atemporal space (or room) wherein the viewer is surrounded by architectural references that are mediated through a variety of processes. Present in this body of work are concepts and methodologies examined throughout this thesis, including 1) the manifestation of memory through digital fabrication, 2) elements of post modern architecture and the formal language of architectural space, and 3) the attempt to portray the depth of memory but inhibiting that process by imposing mediation strategies.



Fig. 1.

Fig. 1: Taryn Sheppard, 'A Total Fabrication', 2020. Multimedia Installation, variable dimensions.

Fig. 2: Taryn Sheppard, 'A Total Fabrication', 2020. Oil Paint on Wood Panel, 80" x 60".

Fig. 3: Taryn Sheppard, 'A Total Fabrication - Pink Granite', 2020. Acrylic Paint on Nylon Textile, 15'x12' (approx.)

Fig. 4: Taryn Sheppard, 'A Total Fabrication - Glass Block', 2020. Details.

Fig's. 5 & 6: Taryn Sheppard, 'A Total Fabrication', 2020. Details.

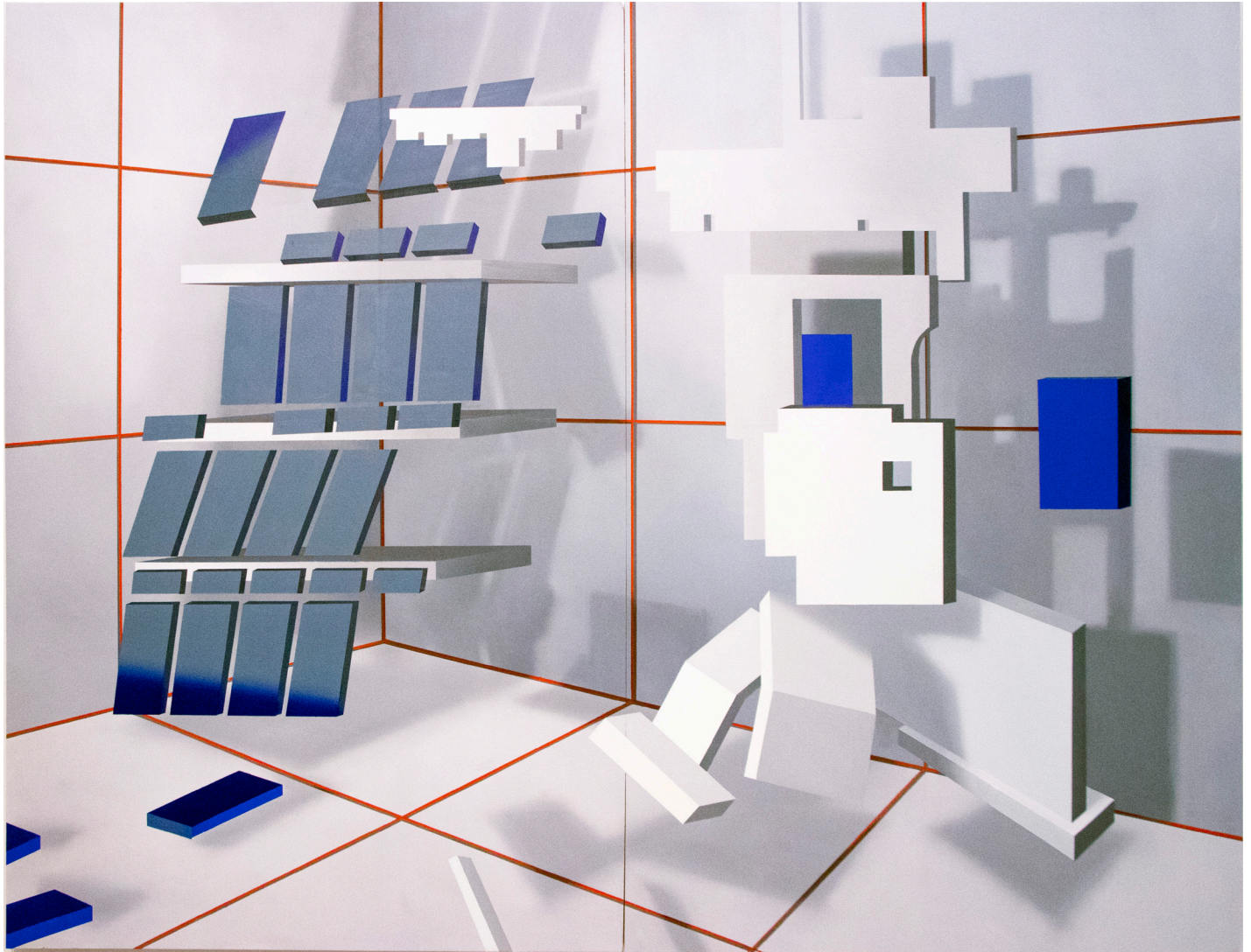


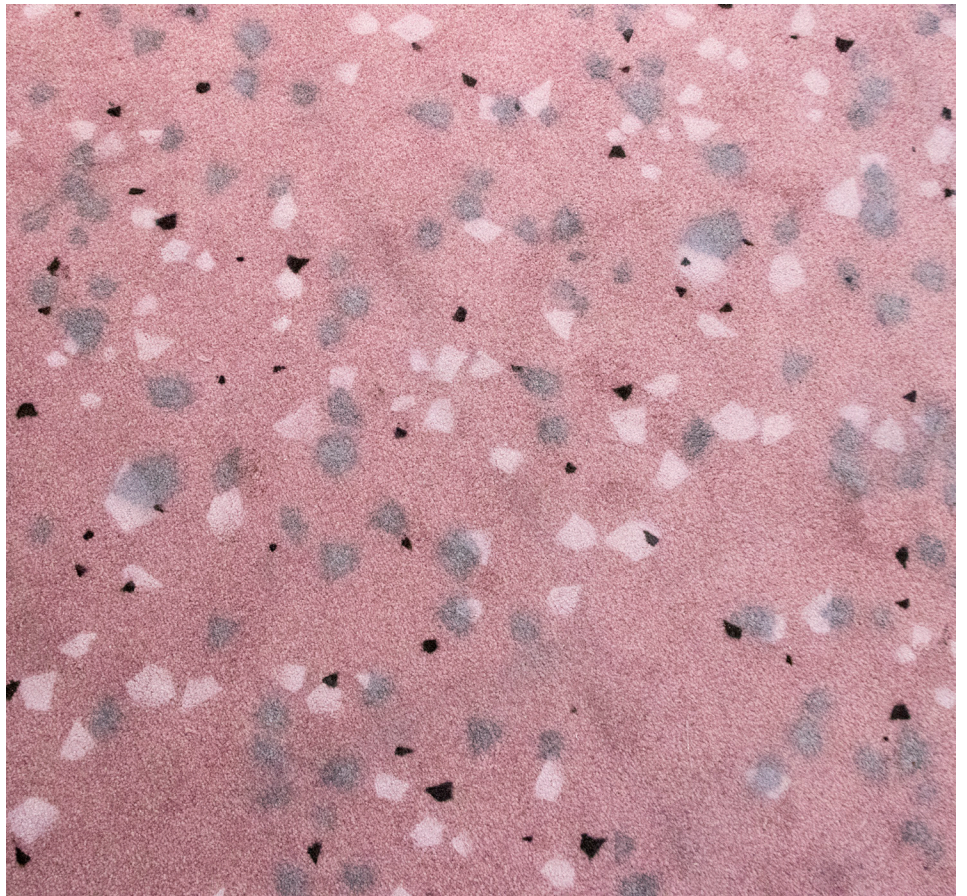
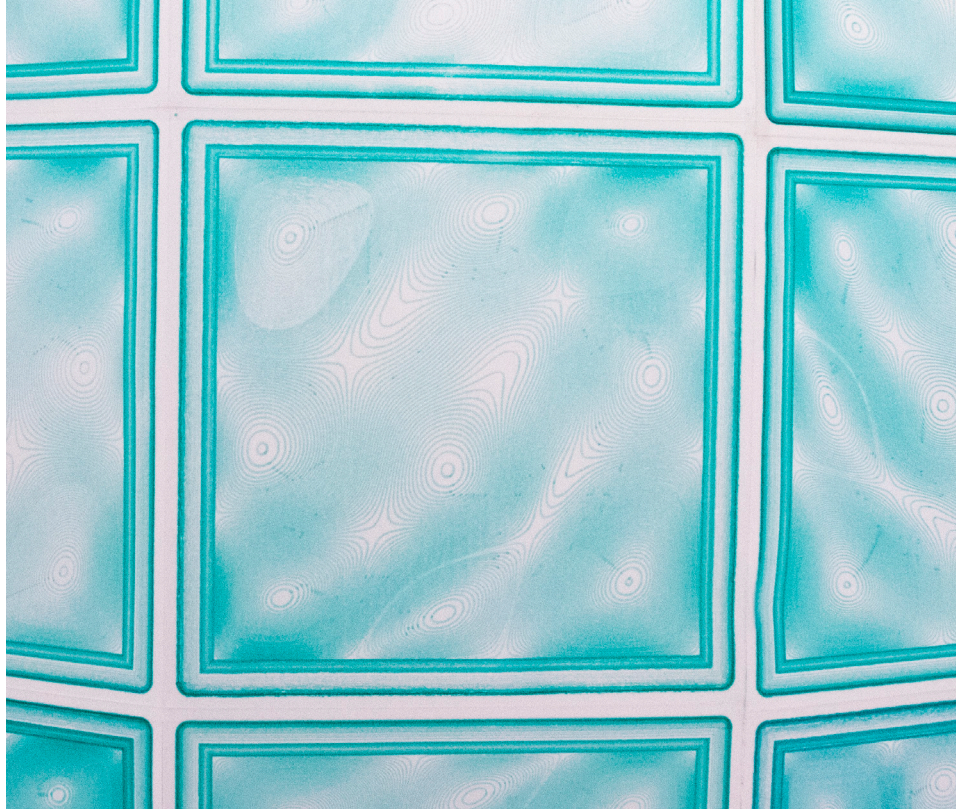
Fig. 2.



Fig. 4.



Fig. 3.



Fig's. 5 & 6.

[Background + Context]

Contextual Influences

Narratives of architecture instilled in me an understanding of how buildings and spaces can represent far more than just shelter. They can symbolize political power, culture, economic conditions, and history. Buildings embody a language of form that has meaning to those who live in and around them.

My home province of Newfoundland and Labrador throughout the 20th century was characterized by geographic remoteness and economic challenges. At the time when Canada celebrated a promising future with Expo 67', the province struggled to adapt to its new-found modernity. It was a testing ground for radical economic rejuvenation schemes, many of them resulting in economic and political turmoil. One example of these maverick schemes was when Joey Smallwood, the first premier of the province, travelled to Expo '67 and purchased the Czechoslovakian and Yugoslavian Pavilions - both built in the International Style of architecture. They were disassembled, shipped and rebuilt in two outport communities in Newfoundland, re-erected as arts and culture centres.¹

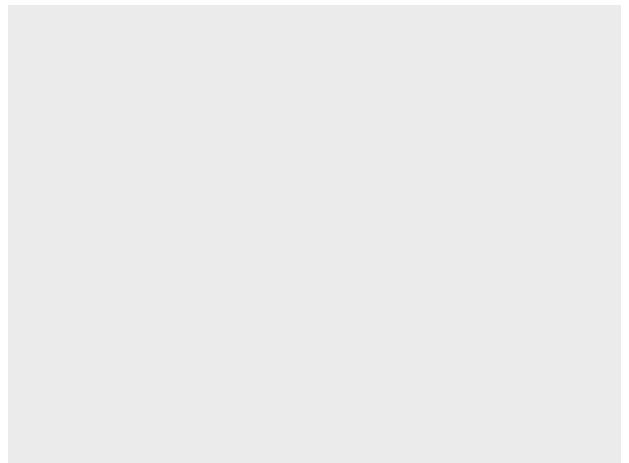
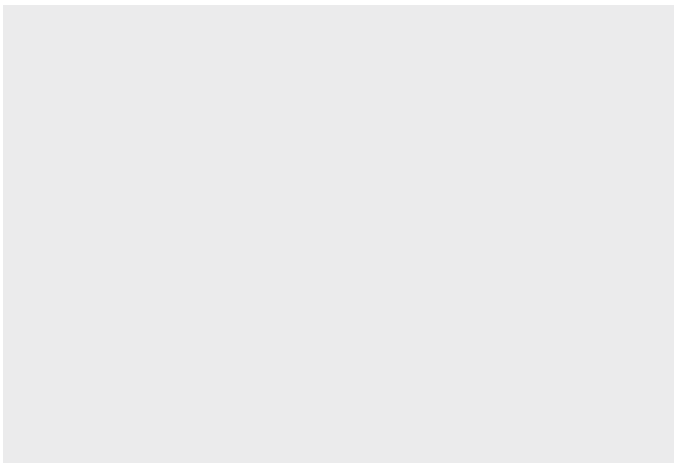


FIG. 7 YUGOSLAVIAN PAVILION FROM EXPO 67'. FIG. 8, RIGHT, CURRENT LOCATION OF THE PAVILION IN FORTUNE BAY, NL. IMAGES REMOVED DUE TO COPYRIGHT RESTRICTION.

1 They both still stand today albeit with some local design interventions including clapboard siding and folk mural, see Fig.1.

The futuristic techno-modern presence of these ‘international style’ buildings had a new and alien presence in the rural landscape on which they were reconstructed. They are sculptural beacons of a far-off world and are reminiscent of a science fiction-esque narrative. They have an unsettling relationship with site (typical of modern architecture) which is exacerbated by having been literally transplanted into an unrelated location.

In contrast to late 20th century global architecture, the vernacular architecture in Newfoundland and Labrador was formed over several hundred years of limited access to building materials and adaptation to a challenging environment. Houses were constructed from wood and built on piles so that they could be moved easily to relocate to richer fishing grounds. Towns were not planned, but rather, ‘emerged’ in a rhizomatic manner based on relationships to the water, views of ocean (for practical purposes) and familial relationships. Modern consumer culture was not established until much later in the history of the island and before this, the culture of production was characterized by innovation in construction stemming from scarcity.

The juxtaposition of the monumentalism of late-modern international style architecture and the fragile regional vernacular demonstrates the meaning and language of form and how the desires of others are expressed in the built environment. As described by these anecdotes, unpacking how my own perception of space has been shaped by my work in architecture has been the departure point for my artistic research.

Postmodern Architecture

Consecutively, the era of Postmodern architecture was largely a response to modern architecture’s uniformity, austerity, and ignorance of context. It was characterized by the idea that architecture should be built for people and reflect the complicated context in which it would be placed. It sought meaning and expression by embracing ornamentation, historical styles, pastiche, complexity and contradiction but was later criticised for liberally taking from any genre and reducing the meaning of form to superficial appearance. The postmodern era of architecture in Newfoundland & Labrador was the backdrop of my early life and plays a role in my artistic research. Through mining my own memories of architectural spaces and materials, and exploring its many emblematic forms, postmodern architecture provides an element of nostalgia and anchors the work in the discourse of architectural movements.

Metamodernism

As discussed in the previous chapter, postmodern architecture (not to be confused with postmodernism in the broader sense) could be defined by an interest in visual language. This can be contrasted by the era in which I have been practicing architecture which is currently (by some scholars) defined as Metamodernism. It is a term used to describe the current condition of cultural production and is not specific to architecture. This era is characterized by a distinct yearning for a utopian vision but not having a clear path to achieve this due to a sense of **overwhelm** and the **intrusion of past narratives** that undermine the truth of our current experience. It has been described as a 'structure of feeling' by scholar Timotheas Vermeulen. This idea is explored further in the Key Concepts section of the thesis, with a focus on the expression of this idea in my work.

Metamodernism is a real condition of contemporary architecture practice, where the origins of a formal language (like columns or arches) have lost their meaning, yet clients still desire to have a feeling of authenticity (warmth and friendliness) in the face of generic architectural styles.

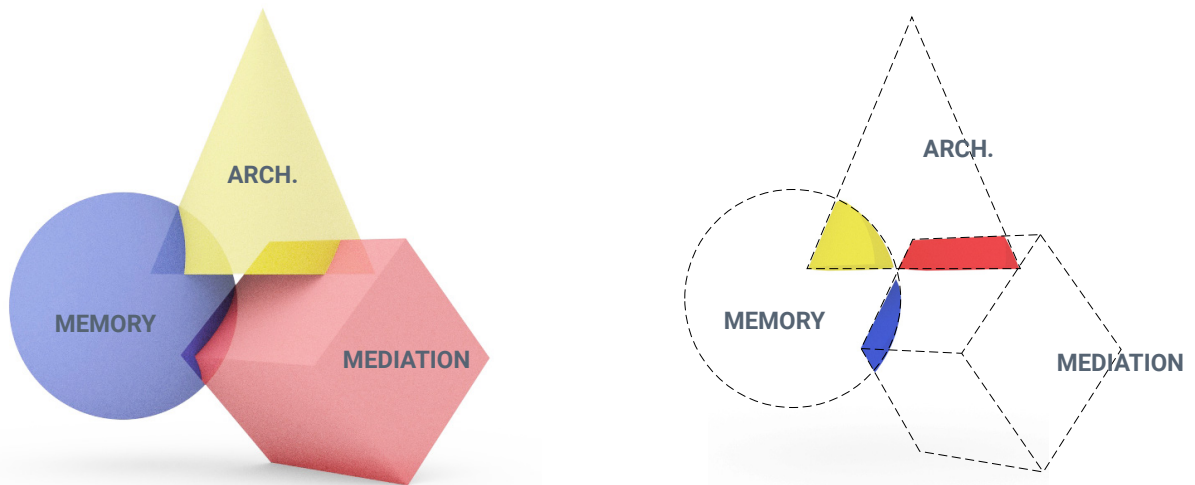
In addition, the simulation space that is ubiquitous in architecture practice creates a similar unsettling psychological dissonance. Throughout my career my focus was on 3d modelling and rendering, and I found myself having to negotiate between the desire to simulate utopian spaces in computer models and the ability of reality to live up to those models. The drive to unpack this difficult relationship between the real and the simulation has been formative in laying out my artistic research. This inability of reality to live up to an idealized model is also a condition of the metamodern existence.

Memory

In my own experience both in designing for those who are aging and with family members who suffered from cognitive deterioration, I have witnessed the effects of the failure of perception in how it relates to architectural space. This ranges from the inability to recognize familiar locations to the fear of simple architectural features like thresholds or long hallways. This experience sparked questions about the perception of reality and the tenuous nature of memory. Rebecca Solnit writes about the effects of dementia and her experiences with a close family member losing their grasp on reality in ‘The Faraway Nearby’:

“Memory, even in the rest of us, is a shifting, fading, partial thing, a net that doesn’t catch all the fish by any means and sometimes catches butterflies that don’t exist.”

The act of remembering can be voluntary or involuntary, and each time we access a memory, the details are freshly reconstructed. Some details are lost each time, and replaced with fabrications. Memories of space can exaggerate characteristics, diminish others, and we often fabricate notions that didn’t happen. In my work, the analog translation of these reconstructed memory models are a literal representation of the faultiness of memory.



Fig's. 9 & 10: Diagram Describing Relationship Between Architecture, Memory, and Mediation.

[Method & Methodology]

Memory and Space

This research methodology begins with a process involving a negotiation of architectural space with a memory. The relationship between architecture, memory and mediation is explored in a diagrammatic method below. In overlapping these concepts I've found a nexus of relationships that will be expanded upon in this chapter.

There is a special relationship between memory and space. I believe what links these two concepts are emotional experiences of space that are anchored by time and place. A friend of mine who was a smoker, explained to me once that their reason for smoking was to accentuate or pinpoint a moment in time; to create a 'peak' along the linear trajectory of a day. The enjoyment of a cigarette and the rush of nicotine had the power to cement a memory into their mind. I'd like to think that this is true - not necessarily triggered by a cigarette - but that a particularly intense personal emotional or sensorial experience can concretize an architectural space into your memory and imbue that memory with feeling. This is not dissimilar to the technique of mind-mapping - the practice of memorizing things by assigning spatial relationships to them.

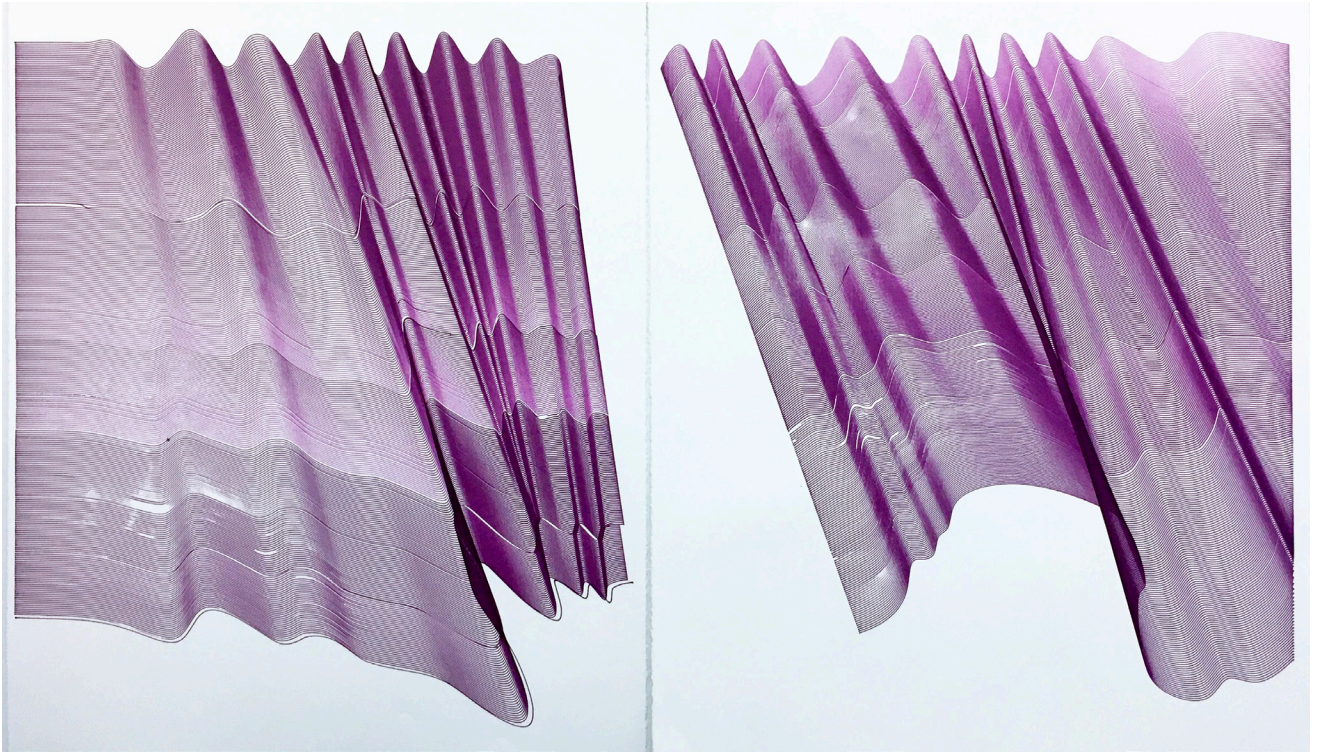


Fig. 11: Taryn Sheppard, 'Threshold', 2019. Watercolor Ink on Paper, 80" x 52".

Gaston Bachelard's 'The Poetics of Space' addresses this relationship of space and memory. For Bachelard, the home represented a rich world of experiences and emotions, anchored by seemingly mundane architectural details like millwork or staircase. A quote from The Poetics of Space:

"And all the spaces of our past moments of solitude, the spaces in which we have suffered from solitude, enjoyed, desired, and compromised solitude, remain indelible within us and precisely because the human being wants them to remain so. "

Bachelard wrote in the context of a modernizing mid-century France, where growing metropolises meant fast and repetitive construction - the antithesis of carefully articulated homes wherein generations of lives could be read in the dents and scratches of a balustrade. For Bachelard, the events that take place in an architectural space leave an intangible effect on their physical being.

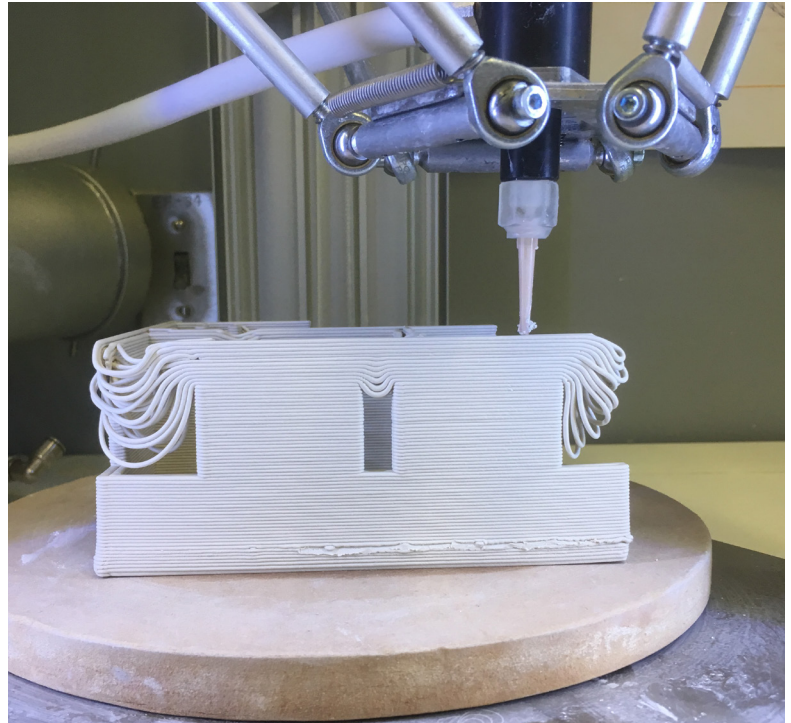


Fig. 12: Clay printer at work creating 'Porcelain House', 2019.
Image by the author.

Mediation

My process begins with an exploration of a moment in an architectural space that I have experienced. In the work entitled 'Threshold' (2019), my goal was to recreate a moment in a domestic space: an open window at night with warm breeze billowing through the fabric of the drapery. From memory I construct elements of this space with Rhino; a 3d modelling software. I create only the planes of the space that are attached to the focal point of the memory. The focal point of the memory is linked to the experience of that space. Reconstructing a space from memory in 3d software allows for scale to be undetermined and for perspective and orientation to be left open-ended. This is important at this generative stage of the process, so that I might try various iterations of the viewer's orientation to the architectural space.



Fig. 13: Taryn Sheppard, 'Threshold', Detail. 2019. Watercolor Ink on Paper, 80" x 52".

In this research the relationship between architecture and memory is mediated by machine and material processes: 3d model to clay, 3d model to plotter, rendering to oil paint (digital to analog). I use several mediation processes in my work. All of them have the starting point of developing architectural spaces from memories as discussed previously. The point of moving from simulation space into real life happens in different ways for different projects. Further to the process of mediation there are a multitude of 3d modelling commands I use to make the model. Those include Loft, ExtrudeCrv, ExtrudeSrf, Make2d, TweenCrvs, etc. and the process of transitioning from virtual to the real which is called 'slicing'².

²'Slicing': the process by which a 3d model is contoured and measured to extract millions of location points in order to be constructed in real life by a digital fabrication device. The data is compiled into a G Code file, which is essentially a map of those millions of spatial locations.



Fig. 14: Taryn Sheppard, 'Porcelain House', 2019. Porcelain. Approximately 16" x 8" x 6".



Fig. 15a & 15b: Taryn Sheppard, 'Porcelain House', 2019. Bay Window Detail And Front Facade.

For 'Porcelain House', the model was cut into layers by slicing software. This software will determine how many layers, at what thickness the material is extruded, and what speed the machine will operate. It generates a toolpath that determines what lines of clay are connected to each other and which are not. The clay printer is stacked with a tank of clay which can be mixed with additives that change its viscosity depending on the desired outcome.

The process for 'Threshold' is slightly different. The 3d model is contoured within the software to create arrays of lines. The bed of the CNC machine is prepared with a substrate, and custom fitted with a drawing tool. The file is converted to G Code, and then drawn as directed by that code. The pen plotter, which is actually an old vinyl cutter, has a similar file preparation process as the CNC machine. However, the machinery is very different and the substrate (paper) is moved along an axis, and the pen medium is moved along a perpendicular axis.

A third mediation process which comprises a large part of this research is the translation of a computer rendering to painting. As seen in 'Hollow', (fig.16), a process of composing a computer model of abstracted parts and then casting simulated lights onto that composition results in an eery diorama like scene. In this case, a memory of a brook in a forest on a winter night is the starting point of the reconstruction (while my work is predominantly focused on architectural spaces, this painting is from an earlier project which involved an exploration of my childhood home. This scene is drawn from memories of the surrounding landscape of that house). The artificial lighting is painted as closely as possible to the computer rendering, and the blue cast is an interpretation of the glow of the screen.

The process of mediation from computer generated rendering to oil paint shows the failings of the simulation space to represent reality, but also demonstrates the very real emotive qualities that can come from the virtual space. What emerged was a surprisingly melancholic scene that highlights the tension between the simulation and the real.

Research & Knowledge Production

I am in part using the tools of custom fabrication as a methodology. Learning from machines about what they do and don't do well involves a process of careful observation and this plays a significant role in the research methodology. My work takes those faults and turns them into opportunities, and also recognizes something important in the successes and failures of each material experiment. For example, I observed that the clay would fall into loops when not aligned properly and I have used that as a feature of the Porcelain House project which relates directly to the concept of the lack of accuracy of memory. I also discovered that a continual offset of lines will produce the optical quality of movement in fabric and that when rendered in ink on a plotter resembles a textile.



Fig. 16: Taryn Sheppard, 'Hollow', 2019. Oil Paint on Wood Panel, 40" x 60".

The relationship between architecture and memory is always mediated by the machine and material processes in my work. What becomes evident in this process are the failures of the medium to represent the memory, much like a VHS tape that has deteriorated, a scratched record, or a faded written letter. The 'glitch': gaps or fault in memory and recording, or dislodging a memory from specific points in a timeline, have the potential to debase the truth of a memory through misrecording. These errors can be seen in 'Threshold' (fig.11) and in 'A Total Fabrication - Glass Block', (fig.5) and 'Porcelain House' (fig.14).

In both 'A Total Fabrication - Glass Block' and 'Threshold', I used the refurbished CNC machine that I outfitted with the attachment for a watercolor marker. I aligned the paper, prepared the medium and sent the code to the machine. I have 'sliced' the model of the curtain or block into thousands of lines and each will be drawn by the robotic arm. In mediating the model to such high resolution, my hope is that the subtle curves of the fabric and glass will have an intrinsic iridescence and transparency. But also with such high resolution, there is more opportunity for things to go wrong like the marker running out of ink, or the marker being replaced in the wrong location when it is refilled. Or, the pressure of the marker tip could be too heavy and disrupt the line weight. All of those errors occurred during the production of these drawings.

With 'Threshold', in the end, the drawing is read as a curtain, yet the movement of the fabric is wrong somehow. It is static and artificial and it's continuity as an object seems to be unravelling. The mediation of the 3d model from virtual to the real has left gaps in its body. These are simple failures of the mechanism to be able to do what is asked of it. The recollection of the warm summer evening is overtaken by an electrified tension.

[Key Concepts]

The Simulation

In architectural practice I have specialized in rendering and simulation. There has always been a strained relationship between what can be visualized in a model compared to the real life process of construction and building. The design process has been altered by the ability to pull elements for a modeled scene from all corners of the internet. This includes material image files, building components, furniture, landscape, and even construction details. It has also been altered by the abilities that are bestowed on us by commands in digital drafting, for instance, the concept of scale-less space or the ability to make instantaneous infinite copies of a floorplan. An exploration of this idea can be seen as a subtext in my work, which explores what this technology does to our perception of space.

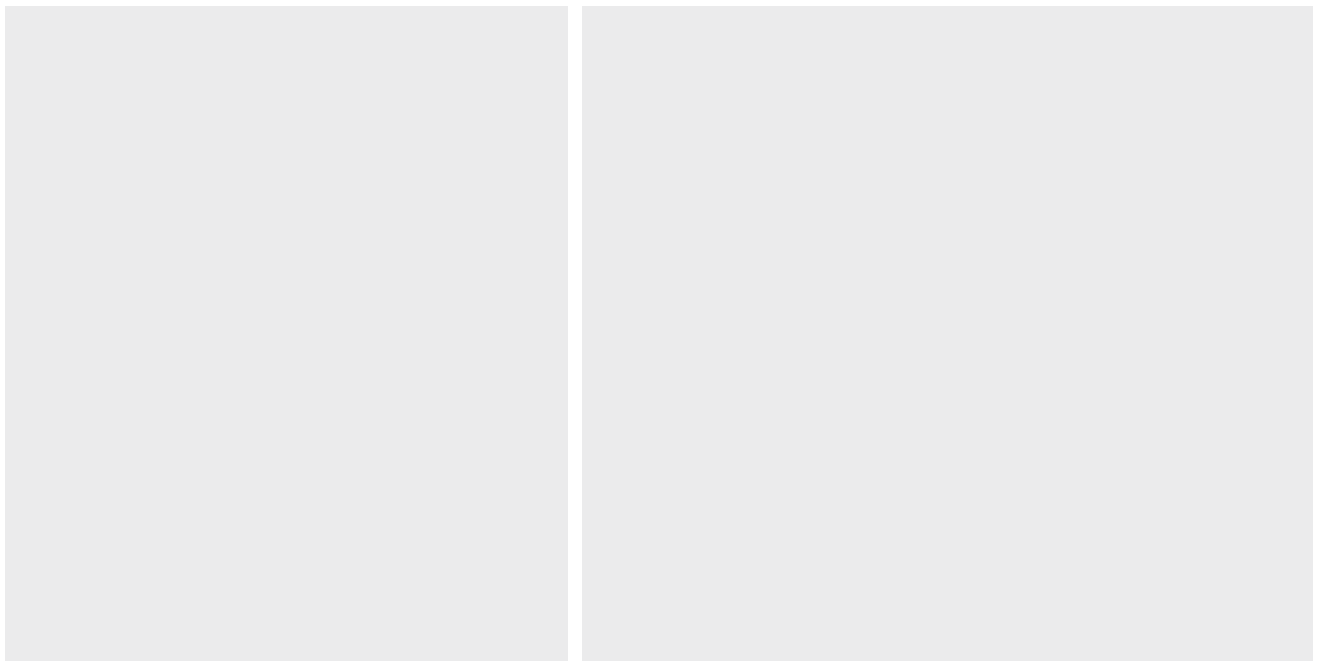
Anthony Vidler, architectural historian and critic, writes about architectural representation becoming a digital practice with CAD drafting and digital rendering. His exploration focuses on diagrams and their relationship with the utopian:

“...A diagram is mainly an Icon, and an icon of intelligible relations in the constitution of its Object. It confuses the real and the copy and therefore makes it an instrument of suspended reality. This ‘pure dream’ can thus be associated with the notion of utopia that constitutes itself by schematic lines of organization.”

The diagram is something that ‘haunts’ the real as it fails to live up to the conceptual clarity of the drawing, therefore creating tension between the ‘real’ and the ‘copy’. When the diagram becomes real is when architecture reaches a state of uncanniness or sometimes dysfunctionality as seen in examples like Brasilia, the modernist city building project of the 1960’s.³

This idea of the uncanny is also seen in the work of photographer/ sculptor Thomas Demand, who creates illusionistic photographs of three dimensional models constructed entirely from paper. These large-scale photographs investigate the relationship between reproduction and original, and the idea of the simulation or simulacra⁴.

Demand reconstructs media images of complex interior scenes using ephemeral materials like paper and cardboard. After photographing the painstakingly-crafted, life-sized models, he destroys them, leaving only photographic evidence of their fleeting existence. Demand’s images often suggest recent activity, yet are eerily devoid of people, resembling the appearance of a film set or even a forensic photograph.



IMAGES OF THOMAS DEMAND ‘GANGWAY’ 2001 AND THOMAS DEMAND, ‘JUNIOR SUITE’ 2012, HAVE BEEN REMOVED DUE TO COPYRIGHT RESTRICTIONS

3 The Uncanny: Something that is simultaneously familiar and strange, typically leading to feelings of discomfort.

4 Fredric Jameson offers photorealism as an example of artistic simulacrum, where a painting is created by copying a photograph that is itself a copy of the real.

Much like in Demand's work, 'A Total Fabrication' (fig.2) is an uncanny simulated world. I show a diorama-like construction that suffers under its own limited physics. It's a digital heterotopia where the simplistic commands of 3d modelling are the only rules that objects obey. A singular light source casts shadows that reveal the sky is not really real, it is a backdrop that lies eerily close. The shadows introduce doubt about the scale and closeness of the objects, and questions about their spatial relations with each other.

After the process of digital reconstruction to analog through painting, a new world is revealed that may shed light on how these processes change the way we think. The scene evokes a yearning for a real depth that it fails to achieve.

Melancholia

Melancholia is seen in the works of other artists using digital culture as a subject. Artist Jon Rafman explores the cultures of online communities like Second Life, dealing with contemporary alienation and paradoxical notions of the self in online worlds. His process is primarily archival, scanning the vast sea of internet content for moments of human vulnerability. This work resonates with contemporary concerns about our understanding of loss and memory in a culture where 'newness' is the dominant value. This desire to archive is discussed by Sandra Rafman, Ph.D. of the Université du Québec à Montréal in her essay *The Reframing of Loss: Jon Rafman's Virtual Archives*:

"The desire that fuels archival fever is melancholic, for it is the passion for what will inevitably slip away. Our world in which the new overtakes the nearly new with such speed is one particularly apt to produce anxiety about loss. In such a world it is right to declare that the imperative of our epoch is to archive (Pierre Nora, 1989). We must keep everything, preserve every indicator of memory, even when we are not even sure which memory is being referred to."

This quote points to the idea of the fallibility of memory that comes into question when in the context of technology. In Rafman's work he is dealing with the collective memory, whereas my research looks at individual memories that might be shared with others. Memory can be seen as a type of internal archive that is accessed through computer modeling.

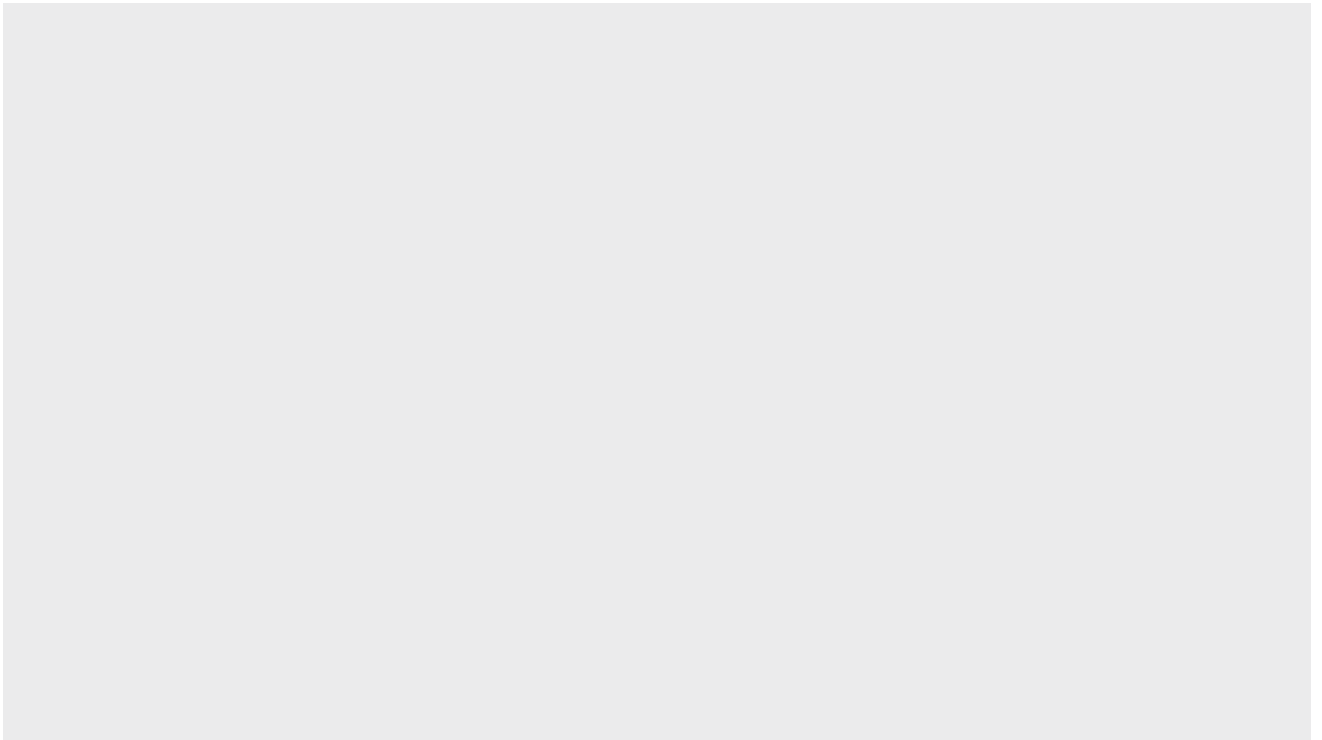
Digital Anxiety/ Digital Euphoria

I have internalized the computer commands that I use on a regular basis. If I spill a cup of coffee, or make a mark on a painting that didn't work, I immediately think: 'ctrl+del', and my mind sends the signal to my hand to press those keys. But there aren't any keys to press that can reverse a mistake in real life, and I end up with a strange sense of ineffectualness. It is a form of embodied memory that has no outlet, which I would describe as a kind of anxiety.

Scholar Melissa Gronlund writes about how contemporary artists are using domestic space to describe a type of gothic expression of anxiety about digital culture. In her article; 'Return of the Gothic: Digital Anxiety in the Domestic Sphere', she recounts how emerging technology in the 1800's was met with suspicion and served as a device for Gothic literature (ghosts who inhabit power lines, etc). She further points out that the contemporary 'domestic' - now the venue of 'The Internet of Things'⁵ - is a space fraught with a similar anxiety. I'm curious how this new form of technological anxiety impacts the experience of our intimate domestic space and to a larger degree architectural space in general.

5 A term to describe interconnection via the Internet of computing devices embedded in everyday objects, enabling them to send and receive data.

In contrast, the works of Sabrina Ratte embrace a digital aesthetic that is a joyous celebration of a strange new world. Could be described as having a ‘digital euphoria’. Many of her works are video installations of imaginary architectural spaces or landscapes that have been generated using a combination of 3d modelling and video synthesizers. They appear to be architectural spaces whose surfaces are flickering with glitched images of brilliantly overturning colours in a state of fluid transformation. The process she uses involves the collision of analogue and digital signals, which is what gives the simulated architectural spaces their fluctuating quality. These worlds are mesmerizing and optimistic.



SABRINA RATTE, STILL FROM ‘MACHINE FOR LIVING’, 2017. VIDEO INSTALLATION IMAGE REMOVED
DUE TO COPYRIGHT RESTRICTION.

This artist creates depth in her video based architectural spaces by intentionally disrupting a digital process with an analogue process. Similarly, the process of mediating a 3d model into a 'real life' medium like clay or paint is also digital to analog. In 'Porcelain House' (2019), my process starts with the drafting of an idea of a house from a memory and then sending it to a machine in a 'g code' format. The clay is then forced through the printer and deposited in a list of locations. The clay is malleable and takes the form of the forces that act on it, including gravity, which distorts the window and door openings. The juxtaposition of the clay with the rigidity of the house model elucidates the relationship between analog and digital process.

Both the 'anxious' and 'euphoric' aspects of digital culture are present in my works and process. The work is not making a statement of criticality against technology, nor is it an enthusiastic embracing of a post-human future. Instead, these works undermine the conventions of perception by finding new means of representation. Those new means of representation come from a merging of analog and digital craft, and result in dissonance and deception.

In my work 'Drapery', the space represented here is a domestic scene where the drawing of the curtains is derived from digital drafting and then executed by a machine. The resulting robotic repetition of the lines is anxiety inducing and conjures notions of the mechanical, but it simultaneously has a seductive quality of colour and gradient, and the gentle motion of wind through an airy fabric.

The Creation of Depth As A Performative Act

Timotheas Vermeulen is a new media scholar whose writings are centered around the condition of meta-modernism, which he explains is a combination of postmodern and modernist thinking that defines the current time. This idea is outlined in his discussion of depth as it pertains to contemporary artwork in his article "The New Depthiness" found on eflux journals. Vermeulen suggests that the 80's and 90's reflected a time where there was a focus on superficiality, the simulacra, surfaces, the shallowness of the human subject as discussed in philosophy by Deleuze, and Baudrillard's idea of 'Simulacra', and epitomized by Jeff Koons's 'Rabbit' sculpture which is essentially made of the reflections of whatever reality it finds itself in. He suggests that a renewed interest in notions of 'the beyond', 'the beneath' and 'the inside' has emerged but this depth is not one that is thoroughly experienced or understood by its proponents, instead it is the potential of depth that is as close as one can get to real meaning:

"Metamodernism displaces the parameters of the present with those of a future presence that is futureless; and it displaces the boundaries of our place with those of a surreal place that is placeless."

-Timotheas Vermeulen and Robin van den Akker, 'Notes on Metamodernism', 2015.

He goes on to discuss the idea that the simulation is not just a model of a reality but a diagram of possibilities “creating self enclosed scenarios informed by reality but enacted in isolation from it, whose conclusions offer radical alternatives.” And perhaps, most saliently, he describes “The creation of ‘depth’ as a performative act as opposed to an epistemological quality.”

In Rafman’s work, it is the goal of unearthing depth within an archive of online material - like candid moments caught on Google Earth from his ‘9 Eyes Project’. However we, as the viewer, have no contextual knowledge of these anonymous individuals and are forced to mine our own experience if we want to go deeper into the image. We are looking for a human connection but the nature of how the image was taken disallows access to deeper meaning.

The idea of the ‘creation of depth as a performative act’ is a central directive in the formation of this research, but in my work, it is found in the moment of deception when the device sadly fails to recreate the authentic moment.

[Conclusion]

This body of work has investigated a range of subjects that, when combined together reflect a larger societal phenomena - the idea of metamodernism. Each of these concepts are exemplified by individual works and united by this theme.

The mediation of architectural spaces through experimental digital material processes is explored in the Porcelain House project. This project involved a back and forth relationship between maker and tools. This research demonstrated that careful observation can lead to new understanding of materiality. Here, the 'glitch' is not screen-based but manifests in the production process. This represents a new body of knowledge discovered through practice.

The impact of simulation (3d modeled/ VR) environments on the perception of space was explored in the painting 'A Total Fabrication' - the centrepiece of the thesis installation. This work exploits the idea of the 'picture plane' and the historical associations with oil painting to produce a sense of depth that is betrayed by the content of the painting. Disparate structural shapes that loosely refer back to building components float in a grid space with artificial lighting. In addition, the fluidity of oil paint is incongruent with the sharp, defined edges of the computer rendered scene, and this contributes to a sense of dissonance within the work consistent with metamodernist thought.

The installation of the thesis and the generative discussions during the thesis defense have led me to isolate the topics that emerged most strongly from this research. Moving forward, my studio practice will focus on issues of spatial perception and architecture in a contemporary context.

I plan to research how digital platforms are shaping the language of the built environment. Gaming and VR design tools represent the opportunity to create ‘architecture’ that is unrestrained by budget and physics. Currently there is heavy investment in researching the emotional effects of virtual spaces on people (for application in the development of gaming) perhaps even more than is spent on studying the emotional impact of real spaces on people. This research would explore the relationship between embodied spaces in the real world compared to spatial experience of the virtual world, circling around the broader concept of architecture and emotional states.

Parallel to this will be an exploration of the condition of contemporary built environment, based upon my work in placing architecture in the context of Metamodernism theory. This would involve research into 1) architecture as a structure of authority and 2) architectural formal language as symbols based on Ferdinand de Saussure’s signifying system, brought into the contemporary context of new media. In addition, I hope to experiment with new installation strategies for this work in a means to understand the role of the viewer and their relation to the work.

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