

ATTIC FOOT AND ELBOW TO TIP OF MIDDLE FINGER

DAVID KNIGHT

Bachelor of Fine Arts, Nova Scotia College of Art + Design University, 2019

A thesis support paper submitted in partial fulfillment
of the requirements for the degree of

MASTER OF FINE ARTS

in

ART

University of Lethbridge
LETHBRIDGE, ALBERTA, CANADA

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ATTIC FOOT AND ELBOW TO TIP OF MIDDLE FINGER

DAVID KNIGHT

Date of Defence: June 20, 2023

Mary Kavanagh
Thesis Supervisor

Professor

M.F.A.

Denton Fredrickson
Thesis Examination Committee Member

Associate Professor

M.F.A.

David Miller
Thesis Examination Committee Member

Associate Professor

M.F.A.

Devon Smither
Thesis Examination Committee Member

Associate Professor

Ph.D.

Adam Whitford
External Examiner
Southern Alberta Art Gallery
Lethbridge, Alberta

Interim Curator

M.A.

Annie Martin
Chair, Thesis Examination Committee

Associate Professor

M.F.A.

ABSTRACT

Presented at the Penny Gallery, University of Lethbridge, in June 2023, my Thesis Project, *Attic Foot and Elbow to Tip of Middle Finger*, consists of three primary thematic arcs organized into chapters: “Stair Iterations,” “Window Meditations,” and “Systems of Measure” – that together represent the culmination of two years of research, writing and creative activities. The defense of this work concludes in an exhibition that centers around five main projects: *Stair Iteration III: Gamma, Retrospect, Near Poet, Ropes and Rulers* and *Growth Chart / Social Body*. The exhibition focuses on the built environment while considering its relation to formal, bureaucratic, and cultural structures and systems. By separating windows and stairs from their usual placement within an architectural space, recontextualizing and altering these standard architectural elements, I consider perceptual changes in scale, memory and its fallibility, the recollection of objects, time and space, alteration of convention, as well as instruments and systems of measurement.

ACKNOWLEDGEMENTS

I would like to thank and acknowledge the support, patience, and encouragement of my thesis supervisor, Mary Kavanagh. I especially appreciated her candor and generosity which carried me through the challenge of writing and organizing my ideas. I would also like to thank my supervisory committee members: Denton Fredrickson, David Miller, and Devon Smither. The insight and guidance I received from each of them has been invaluable to the completion of my work and research.

Further thanks go to Annie Martin and Adam Whitford for their respective roles on my Thesis Examination Committee; to Don Gill, Miguelzinta Solis, and Nick Wade for valuable critical feedback; to Jarrett Duncan, Jeremy Pavka, and Mary-Anne McTrowe for technical assistance; to Victoria Baster for scheduling many valuable studio visits through the Art NOW Speakers Series, and for her ongoing support and critical feedback throughout the two years of my program; to John Savill of Savill Group Architecture and curator of the Trianon Gallery, and Darcy Logan, director/curator of the Casa Galleries, for providing pivotal opportunities to exhibit my work in progress; to the staff at the Southern Alberta Art Gallery for their support; and to the University of Lethbridge for hosting my exhibition in the downtown Penny Gallery.

Last but not least I would like to thank my grandparents, Irene Knight and the late Donald Knight, Ruth Milord, and Bradley MacIntyre, for their inspiration and sanctuary, my father and mother, Brian Knight and Kim Muller, for their constant support and guidance, and my Aunt Shari Muller and Uncle Andrew Furness-Muller, and all members of my extended family, for their care and support throughout my M.F.A. program.

I acknowledge that this work and research was completed on Treaty 7 Territory, the traditional home of the Niisitapi (Blackfoot).

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CHAPTER 1: INTRODUCTION

This support paper addresses the making of each piece within the exhibition, *Attic Foot and Elbow to Tip of Middle Finger*. The paper investigates both method and material while expanding on the ideas, motivations and explorations that have driven the production of my M.F.A. Thesis. Presented at the Penny Gallery, University of Lethbridge in June 2023, the exhibition consists of four projects that represent the culmination of two years of research-creation, centered around new spatial configurations that investigate conditions of the built environment, including their effects on movement, perception, scale, and narrative.

Stair Iteration III: Gamma is the central project and third sculpture that emerged from the progression of my earlier *Stair Iteration I: Alpha* and *Stair Iteration II: Beta*. Realized in 2022 and early 2023 *Stair Iteration III: Gamma* is constructed with spruce, a soft wood commonly used in new construction in Canada. Left unfinished, the stairs are unadorned and without drywall or paint, bare studs reveal themselves, imperfections are visible, raw timber and the sheen of the nail heads are visible. *Stair Iteration III: Gamma* began as an investigation of perspective, perception and pattern – all utilized when traveling up and down stairs.

Retrospect is an ongoing series of 8.5in x 11in photocopies that utilizes the effects of repetitive use of the photocopier on one image, made from an 8in x 10in photograph of my grandmother's kitchen window. This project reflects on perspective, memory, and history through temporal and technological disruption.

Near Poet is a three-dimensional copy of my grandmother's kitchen window made using the measurements of the original window. It is a classic sash window measuring 28in x 39in and is presented in the gallery space 36-inches from the ground to maintain the physical height of the original window. The window and its frame are made from spruce wood, ¼-inch insulated glass is used for the top and bottom panes, sash rope and steel sash weights are used to counterbalance

the window's weight allowing it to slide up and down. The window is adorned with a brass sash lift and window lock that can be adjusted to hold it stationary. This work calls into question the connection between memory and imagination and considers how common architectural features, like windows or doors, can affect our perception of time and memory.

Rulers and Ropes consists of two iterations of hand-made instruments that recall the history of measurement and its connection to the human body. I constructed these sets of tools using spruce and sisal rope following the Greek System of the "attic foot" that revolves around measurements of the body, and inserted the proportions of my own body as the point of reference for the length of each ruler. The "rulers" consist of ten sections of wood 1in x 1/4in cut to the length of a corresponding body part and adhered with copper rivets. These wooden sections are numbered 1-10 on each side of the ruler with one side marked in English and the other side marked with Greek terminology, similar to how a common ruler might have inches (imperial) on one side and centimeters (metric) on the other. Each "Rope" is juxtaposed to a corresponding body part and knotted the same length 10 times.

With these hand-made measuring tools, I built *Stair Iteration III: Gamma*. The use of my own bodily measurements closely considers the importance of the builder's hand and body in the making of the built environment and the connection between bodies and the surrounding architecture.

The title of this exhibition, *Attic Foot and Elbow to Tip of Middle Finger* derives from the Greek system of measurement, the "attic foot" that highlights the body as a form of measurement with Elbow to Tip of Middle Finger (pechys) being the largest of the measurements. The alteration of the attic foot with the insertion of my own personal body measurements became a central aspect in creating *Stair Iteration III: Gamma, Rulers and Ropes*,

and Growth Chart / Social Body as a way to respond to the built environment, architectural constructs and their effect on our gestures and experience of a space and our perspectives, imaginations, memories and histories of spaces.

This support paper is organized into three chapters. The first chapter revolves around “Stair Iterations,” and investigates the role of proprioception¹ in perceiving location, action, movement through space, and the impact of architectural structures on perception or memory. The second chapter, “Window Meditations,” centers on a printed photograph of my grandmother’s kitchen window that reflects further on notions of memory and loss through the use of the photocopier as an instrument of replication and extension. The third chapter, “Systems of Measure,” recalls the history of measurement and its connection to the body, resulting in the construction of a set of personalized measuring instruments, which were then used to build the project *Stair Iteration III: Gamma*.

Within our built environment we are directed by common architectural features like stairs and windows which dictate ease of movement, accessibility, and security in everyday life. Referencing Foucault’s theory of the “dispositive,”² a discussion opens between architectural forms, institutions, laws and administrative measures giving built environments a multitude of functions and interpretations. We can begin to understand the role of these built spaces within architecture, design, and urban planning, and their ability to regulate human behaviours and shape our experiences through architectural objects like windows and stairs can create through public interplay, shifts of position and modifications of function. While the built environment has the potential to dictate our experience of movement through space, architectural structures such as windows and stairs, which my projects address, affect how we enter buildings, access previously

¹ J.L. Taylor, *Encyclopedia of Neuroscience* (Australia: Academic Press, 2009), 1143-1149

² John, Ploger, *Foucault’s Dispositif and the City* (London: SAGE Publications, 2008), 51-70.

out of reach places and provide views otherwise unattainable. These built environments are so taken-for-granted that we often become unaware of the regulating presence they have on us. By separating windows and stairs from their usual placement within an architectural structure, recontextualizing and altering them, my work examines how different architectural configurations might open unexplored conditions of the built environment, including its effect on movement, perception, scale, and narrative as well as the juxtaposition of imitation and alternation. I consider changing perception, memory and its fallibility.

My exploration into the built environment and its unexplored conditions is furthered with the use of conventional building materials like raw timber, metal, and glass that invite the audience to interact with and consider their relation to formal, bureaucratic, and cultural structures that govern their use. This includes spaces that we live within but do not see or engage with, such as the interstitial space that is created under a set of stairs usually walled off, the studs that create the frame, the cord and weights that control a sash window, or the aesthetics of the raw material and the mistakes of the builder's hand. Leaving the raw materials exposed creates a connection. A familiarity to natural materials like wood and steel allow for a common entrance point and connection to the built object for viewers to prompt critique and introspection about the materials used and the way architecture not only dictates the experiences of spaces around us but fosters and holds, collective memory.

CHAPTER TWO: Stair Iterations

2.1 : Stair Iteration I: Alpha [Image 01]

From the outset, my artistic practice has explored everyday items like water bottles, gas cans, axes, and walls to invite interaction with the familiar, on a physical level whether it was carrying these objects, destroying them or using them to manipulate space to control visitor movements. I invite viewers to be involved with my work in ways other than optical, and by using everyday objects and methods of informal display, such as the ability to interact with the ropes, rulers, open, close and lock the window or walk up and down the stairs. My hope is that visitors are made comfortable and eager to interact with my artworks. Through the physical interaction with my work, I hope to evoke a sense of connection and awareness to the artwork that can be shared with everyone on some level regardless of the amount of understanding they have of the art itself. As Martin Heidegger suggests in his theory of “The Thing”³ the more we use an object like a hammer the more we begin to develop a primordial relationship with that object; in return that object is increasingly uncovered, and we begin to encounter the object for what it is. I adopt this theory when attempting to defamiliarize stairs, windows, photographs, and measuring devices in order to allow viewers a baseline connection regardless of philosophical, theoretical or artistic knowledge.

Looking at Rachel Whiteread’s (*Untitled*) *Stairs*, (2001)⁴ a cast of sections of a staircase in a former synagogue / textile warehouse using Jesmonite combined with layers of fibre glass, the cast when removed creates a life sized, raw, pale white version of the stairs that are then turned ninety degrees onto their side rendering them unfunctional, I began to see how an artwork

³ Bill Brown, “Thing Theory,” *Critical Inquiry* 28, no. 1 (Autumn 2001): 1–22.

⁴ “Untitled (Stairs), 2001: Rachel Whiteread,” TATE. Accessed May 13, 2023, <https://www.tate.org.uk/art/artworks/whiteread-untitled-stairs-t07939>.

can challenge how we may walk around or through something, how the stairs begin to interact with our bodies unexpectedly and shed encoded symbolism that leads the participant to question a new narrative or historical reconfiguration between themselves and the object to create new perspective, memory, history of what stairs can be.

Not only did it force people to navigate with the space around the artwork, but it led viewers to look beyond the “ready to hand”⁵ aspects of stairs and to contemplate the “present to hand”⁶ qualities, the size, smell, texture, and aesthetics of the sculpture. Overall it challenged one’s perspective and memory of what the function of a sculpture might be.

Whiteread’s (*Untitled*) *Stairs*, (2001) helped provide a foundation for my own investigative research in my first project *Stair Iteration I: Alpha* and how I attempted to disrupt quotidian objects or architectural structures. *Stair Iteration I: Alpha* was altered by 2 mm on one stair that would cause people to trip as seen on the *Art and Science of Tripping up the Stair*⁷ and inspire investigation into the built environment. When developing *Stair Iteration I: Alpha* my fear was if I changed the stairs too much, they would become unrecognizable as functional stairs and my alteration would be lost. Therefore, I kept the disruption minor enough it would be visually undetectable. This made it important that *Stair Iteration I: Alpha* was built to Canadian building code except for the deliberate disruption of a quarter inch increase in the rise of the fourth step incorporated into the build. Otherwise, the maximum (200 mm) and minimum (125 mm) dimensions determining the run, measured as a horizontal nosing-to-nosing distance, and rise, measured as a vertical nosing-to-nosing distance, a maximum (355 mm) and a minimum

⁵ “An Introduction to Heidegger: Being and Time,” YouTube.com, filmed May 29, 2018, <https://www.youtube.com/watch?v=eDAyhsZ-Gs4>.

⁶ “An Introduction to Heidegger: Being and Time,” YouTube.com, filmed May 29, 2018, <https://www.youtube.com/watch?v=eDAyhsZ-Gs4>.

⁷ “The Art and Science of Tripping up the Stairs,” kottke.org, filmed July 10, 2019, <https://kottke.org/19/07/the-art-and-science-of-tripping-up-the-stairs>.

(210 mm) for private steps, had been followed.⁸ *Stair Iteration I: Alpha*, once completed, was a stringer of seven steps standing at a height of five feet with a total run of eight feet. The entire artwork was left unfinished in terms of drywall and paint, with the raw timber of bare spruce studs showing imperfections and the sheen of the large 3-inch nail heads. The revelation of these attributes that are usually hidden in a finished building project invites an exploration of this architectural element as a thing in itself, isolated, viewable in the round, a new environment for investigation and discovery.

2.2 : Stair Iteration II: Beta [Image 02]

As the project *Stair Iteration II: Beta* started to evolve I began to research the history and significance of stairs. To begin, I first researched stairs and the associations attached to them. Defined as a “series, or flight, of steps between two floors,”⁹ the history of stairs is complicated and the exact date of their invention cannot be pinpointed. Stairs originated before ladders and were naturally made from stones and logs that could be stacked and it is “certain that humans have been carving steps in mountains for millennia.”¹⁰ “A nineteenth century poem by Oliver Herford about the invention of stairs ends with the lines: “So let his name go down to fame, whatever it may be” highlighting the idea that the staircase cannot really be attributed to one individual.¹¹ Swiss Architect Werner Bosendorfer first attempted to standardize staircase design

⁸ “Canadian Commission on Building and Fire Codes,” National Research Council of Canada, last modified December 13, 2022. Accessed May 11, 2023, <https://nrc-publications.canada.ca/eng/view/object/?id=515340b5-f4e0-4798-be69-692e4ec423e8>.

⁹ “Staircase,” Encyclopædia Britannica, last modified July 28, 1998. Accessed March 31, 2023, <https://www.britannica.com/technology/staircase-architecture>.

¹⁰ “The history of the staircase,” Reader's Digest, last modified May 24, 2021. Accessed May 13, 2023, <https://www.readersdigest.co.uk/lifestyle/home-garden/the-history-of-the-staircase>.

¹¹ “Who Invented the Staircase?: Blog,” Darcy Joinery Ltd, last modified February 22, 2019. Accessed March 23, 2023, <https://www.darcyjoinery.co.uk/who-invented-staircase/>.

and construction guidelines in 1948,¹² although stairs have been around for thousands of years. The universal understanding of stairs throughout has been that they are intended for us to travel up or down. However, with that movement of up and down comes multiple rituals, connotations and phenomenological experiences related to those actions.

Phenomenological experience refers to the subjective experience of space and form in an environment, as discussed by Maurice Merleau-Ponty,¹³ phenomenological experiences can be influenced by things like scale, texture, and material in proportion to other objects, similar to how ready to hand objects can become present to hand¹⁴ objects in Heidegger's thing theory.

To focus on the built environment, how it is perceived and how scale and proportion can effect perception, I began to design another staircase, this time transforming them more drastically than before.

In response, *Stair Iteration II: Beta* like *Stair Iteration I: Alpha* was left largely unfinished. The stairs are unadorned and without drywall or paint, bare studs reveal themselves, and imperfections are visible. This iteration included a nineteen step stringer, twelve foot vertical, and a sixteen-foot total run. Every step of the stairs had its rise and run reduced by a quarter of an inch beginning with the standard 10inch run and 8inch rise at the bottom of the stairs, that measurement being carried onto the next stair up and reduced again by 1/4in, rise and run. As you look at the stairs ascending they become smaller and smaller in perspective, as if the staircase recedes in space, challenging how stairs typically function, what stairs might be, and what their proper function is.

¹² "Ideas of Yesterday for Today and Tomorrow," SlidePlayer, last modified June 29, 2019. Accessed May 3, 2023, <https://slideplayer.com/slide/13484483/>.

¹³ Maurice Merleau-Ponty, and John F. Bannan, "What is Phenomenology?" *CrossCurrents* 6, no. 1 (1956): 59–70.

¹⁴ "An Introduction to Heidegger: Being and Time," YouTube.com, filmed May 29, 2018, <https://www.youtube.com/watch?v=eDAyhsZ-Gs4>.

2.3 : Stair Iteration III: Gamma [Image 03]

When I began *Stair Iteration III: Gamma* I had the *Penrose Stairs* in mind. The *Penrose Stairs* are a two-dimensional staircase that allow a person to perpetually ascend or descend four ninety-degree turns in a continuous loop. While this illusion is impossible to replicate three dimensionally.

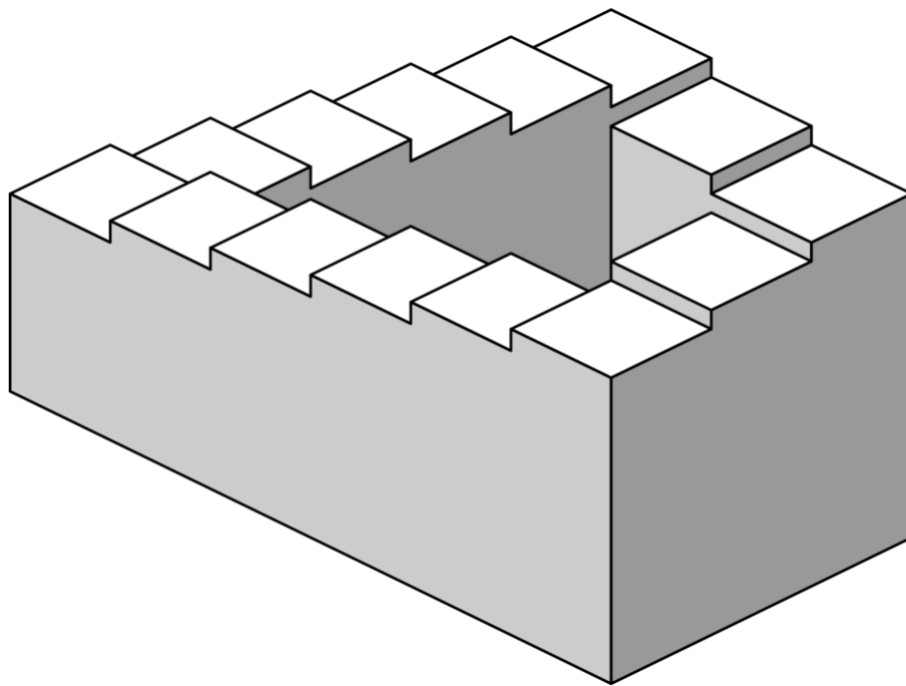


FIGURE.1

I found the *Penrose Stairs* interesting as a way to investigate concepts of up and down that have evolved around stairs. I felt that by altering a spiral staircase I could evoke the same effect as the *Penrose Stairs*. When researching the evolution of the spiral staircase I found a defensive form for military use in the Medieval period, spiral staircases in castles were built to

ascend in a clockwise direction, unlike most traditional spiral staircases, which travel in the opposite direction. The defender coming down the stairs would then have an advantage, as their sword hand would have more room to swing. Moreover, the attacker, ascending clockwise, would have to expose more of their body in order to get to their sword.¹⁵ This military adaptation was interesting as it took the traditional relation to “up” or “ascending” being positive and “down” or “descending” being negative and flipped them. Like the Penrose stairs, these medieval spiral staircases confuse the historical connotations of up and down with the Penrose stairs being indefinitely neither up nor down and the military stairs leading the enemy up to their death, while the protectors go down the stairs to victory. This made the spiral staircase an attractive object to recreate in an attempt to transform and defamiliarize stairs through activation with audience participation while refraining from highlighting the undertones of “up” and “down” offered by the image of Bachelard’s vertical house in which “up” and “down,” attic and basement are a polarity of rationality and irrationality. With Bachelard stating, “up near the roof all of our thoughts are clear. In the attic it is a pleasure to see the bare rafters of the strong framework. Here we participate in the carpenter’s solid geometry. As for the cellar, we shall no doubt find uses for it. It will be rationalized and its conveniences enumerated but, it is first and foremost the dark entity of the house, the one that partakes of subterranean forces.”¹⁶ It is these undertones, the rationality surrounding “up” and the irrationality surrounding “down” that *Stair Iteration III: Gamma* attempts to negate through making neither “up” or “down” the final destination of the stairs by allowing participants to climb the stairs continuously without end similar to the *Penrose Stairs*.

¹⁵“The history of the staircase,” Reader's Digest, last modified May 24, 2021. Accessed May 13, 2023, <https://www.readersdigest.co.uk/lifestyle/home-garden/the-history-of-the-staircase>.

¹⁶ Gaston Bachelard, *The Poetics of Space* (Massachusetts: Beacon Press, 1992), 18.

2.4: Diary of Alpha [Image 04]

Diary of Alpha is a edited 10 minute video loop of a durational performance that began at the beginning of March 2023 and finished June 15, 2023. In *Diary of Alpha* my first stair iteration, *Stair Iteration I: Alpha* is climbed each time I enter or leave my studio, filmed by a stationary camera that captures a consistent angle and frame of this repeated action. The ritual of ascending and descending is used as a way to document bodily awareness, movement, and a daily response to the stairs as an unexplored space. Brazilian artist, Lygia Clark’s describes the importance of approaching each experience anew: “avoid schematizing anything and each day eat a new ‘Pear,’ to see if it’s good or not”¹⁷ as a way of defamiliarizing an object by approaching it as a new unknown object each day.

The repetition and documentation of going “up and “down” the stairs is akin to the repetition and documentation in Bruce Nauman’s *Walking in an exaggerated manner around the perimeter of a square*,¹⁸ (1968). A ten-minute black and white, silent film performance of Nauman himself walking around a large square, masked with tape that is affixed to the floor of his studio, heel to toe, and forward and backward. I use the repetition, documentation, and performance to explore changes in perception as well as to defamiliarize the object being used. In *Diary of Alpha*, for example, my understanding and perception of stairs are now different to that of when I was a kid. As an adult stairs are

¹⁷Claire Bishop, *Lygia Clark and Helio Oiticica Letters 1968-69: In Participation* (Massachusetts: MIT Press, 2006),110–16.

Note: all personal reflections by David Knight in italics

¹⁸ “Walking in an Exaggerated Manner Around the Perimeter of a Square,” MoMA Learning. Accessed May 11, 2023, https://www.moma.org/learn/moma_learning/bruce-nauman-walking-in-an-exaggerated-manner-around-the-perimeter-of-a-square-1967-68/

experienced functionally, they shape and regulate motions and our awareness of an environment. As a kid stairs might take on a multitude of meanings. For myself the stairs that led to my childhood bedroom became grounds for exploration and investigation...

my bedroom as a kid being upstairs for the majority of my life, I remember the ritual of up and down the stairs well. The descent down the stairs being as memorable and exciting as up, honestly, I felt more uneasy going up them. The stairs were narrow and the treads thinner than average the wood most likely pulled off of a previous project, painted and carpeted over dozens of times. The carpet providing more security to the stairs than the wood and nails themselves. There was a sort of entertainment of how many steps I could go down at once and how much faster I was in my escaping descent than going up. I would play the games with the stairs, running up and down the stairs taking one stair then two, three, and four at a time, stretching as far as my legs will let me. Every step and leap from one stair to the other would let off a large groan from the old wood, begging me to stop as it tried to keep up with my child's play. The stairs became novel losing their use of ascending and descending they had become grounds for investigation. How fast could I go up and down? How many steps could I take at once? How much could I make the wood beg before it gives in? Did they need to be walked up and down or could I slide and pull myself up? I poked and prodded the stairs now more like a test subject pushing them to their limit wondering what holds them, how do they get their shape what connects them, I mauled them with curiosity until finally the staircase surrendered, with a loud short shriek it was over. [Stairs #1, from Stair Iteration III: Gamma]

This sort of play and movement on stairs produced a personal vocabulary, a defamiliarization outside the common ways our bodies navigate our built environment

CHAPTER THREE: Window Meditations

3.1: Tracings and Copies [Image 05]

Traces and Copies began as an examination of marks left on windows and how they offer a form of documentation of a particular history where the windows are situated. This piece was inspired by a window found on a hike in Banff National Park in an old stone building. It was a chicken wire window, weathered by the environment, cracked in multiple spots with stickers plastered all over it as if bandages held it together. The residue, cracks and layers of stickers from over time spoke about this particular window's location and its history in relation to this location.

Studio Window Archive [Image 05] was created using an HB pencil and 8" x 10" paper, I began to trace the two windows in my own studio from left to right and top to bottom, cataloging the effects in book form, in the order of first to last tracing. After both windows were traced and the pages organized into book form I began to look for other ways to expand and continue the *Studio Window Archive*. Finding Molly Springfield's artwork *Commander Lowell*¹⁹ (2015), large graphite paper copies of book pages, sections she has found interesting that she has blown up and distorted by playing with options on the copier either systematically or at random and then copying them again large scale by hand in graphite, lead me to consider using the juxtaposition of the analog tracings with the digital technology of the photocopier to explore the alteration of memory and history over time. I proceeded to photocopy each tracing separately and placed them in order to match the initial tracings. I then traced the photocopies and proceeded to copy these traces, repeating the process five times to see how the technology of the

¹⁹“Untitled (Stairs) 2001,” TATE, last modified February, 2005. Accessed March 13, 2023, <https://www.tate.org.uk/art/artworks/whiteread-untitled-stairs-t07939>.

photocopier changed the narrative of the marks left on the window over time and possibly the initial history of the original analog tracings. I began to notice as I continued the copies the the photocopier was missing marks and adding its own more drastically with each new copy of tracings. I started looking for marks made or removed from the initial tracings as a translation or alternate narrative from the originally traced marks. This raised the question of the alteration of information and its effect on memory over time and across Western history through innovations and advancements in analog and digital print technologies and the effect these continuous modifications between analog and digital have on the documentation and distribution of knowledge and history.

3.2: Retrospect [Image 06]

Tracings and Copies posits the idea that memory is in constant tension with error and loss of truth over time. In *Retrospect*, this concept was pushed from tracings and copies of my studio windows to copies of a photograph of my grandmother's kitchen window [Image 07]. This photograph was taken in winter of 2023 in Wallaceburg, Ontario. My grandmother, Irene Knight, sits in the window with her dog Peaches in her small brick house along the Sydenham river, a house she has resided in for nearly 40 years. I've examined several photographs of this window taken by various relatives in the pursuit of this work, and, while many of the photos were usable, I felt the need to be able to direct the scene personally. This emotional response resulted in taking the picture myself when home visiting for Christmas and allowed me to remove or add items as I found necessary. This process created a more accurate representation of the window as I remembered it and captured the essence of this window in my own life, a subject of intense and recurring recollection and imagination.

Instead of photocopying the window tracings with the auto settings and tracing the photocopy then photocopying the trace as I did with *Studio Window Archive*, the one-hundred photocopies of *Retrospect* are the result of the previous copy with the last photocopy made being copied to create the next in the series of 8inch by 11inch white printer pages. Similar to Ian Burn's *Xerox*²⁰ (1968), where Burn photocopied one-hundred sheets of white paper with a Xerox 720 machine and catalogued the results of the errors left by the machine on the paper in *Xerox Book #1*. *Book #1* was then copied to make *Book #2* and so on for twelve books, each book being photocopied from the last. This exploration of (then cutting edge) technology and what is gained or lost by its use echoed my own. Using Ian Burn's method of exploration with the photocopier *Retrospect* shared the progression in error as each image copied became more distorted, pixelated and off centered.

The personal photo's specificity in time and place makes this photograph a tangible starting point to manipulate and reflect upon instead of a blank page as Ian Burn's used for example. The idea being that with an emotional connection to the photograph I would be more likely to hold onto the original memory as the photocopier altered and distorted the image, allowing me to closely navigate and experience the effects of the photocopier on memory and the consideration that each recall of a moment has the potential to be altered or distorted. This lead me to a closer reflection on my on the kitchen window itself and the core memory attached to it:

Every Sunday I pay homage. It had become a ritual. The kitchen window created behaviors and practices, morals, beliefs, and worldviews within me beyond what I have ever experienced in a church or temple of any kind. I never worried about missing a day of church the repercussions never seem to come, even now as I remember and wait for them as if they had

²⁰ "Ian Burn," National Gallery of Australia. Accessed May 11, 2023, <https://searchthecollection.nga.gov.au/object/33720>

been handed down the chain of command and now is the time the other shoe will drop nothing. The kitchen window brought immediate tangible rewards; my grandmother's food, the care and comfort of having family around, the safety of an old worn in home and the daydream of the window. To miss the ritual meant all this would be gone and once lost it cannot be re-obtained. Of course, next Sunday will be similar all Sundays are similar, but never exactly the same. But the window will be constant. It grounds me in imagination and in my current reality. I sit and admire the kitchen window staring out of it allowing it to transform into a portal to take me into the foliage just beyond the side yard. As I stare the voices of my family become soft murmurs, a babbling brook in in this new world I have created for a moment. It's an odd feeling as my body feels grounded in the moment, safe, aware. However, my mind continues to focus out of the window imagining myself in future adventures, careers, wandering unknown paths that may only exist to me, when a sudden snatch of a green can of Canada Dry from off the table by my uncle signals the end of another Sunday. [Kitchen Window #1, from Recollect]

Creating multiple photocopies of my grandmother's window allows me to investigate how photocopies that are altered over time resonate with the ways that our own memories change over time, altering our recollection of the original event. While the extent to which technology can impact our memory of images may vary depending on the specific circumstances and the individual, it is clear that changes to an image can potentially affect our original memory of that image. This is because our memories are subject to change over time, when an image is altered through technology, such as photocopying it can change the details of the image that our brain focuses on or remembers challenging our memory.

3.3: Near Poet [Image 08]

All I ought to say about my childhood home is just barely enough to place me, myself in an oneiric situation, to set me on the threshold of a daydream in which I shall find repose in the past.

- Gaston Bachelard, *The Poetics of Space*, 1992

Near Poet is further exploration of memory and loss inspired by my grandmother's window. This sculptural work was built in an attempt to capture my own nostalgia as embedded in an inanimate object to try and provoke a similar feeling in others. The purpose of capturing my own nostalgia within the window was to in an attempt to make the window "Thing" and have the participants look past the object as a simple window and begin to make connections to other windows in their lives and the memories they hold and how they may have effected the viewers life. When attempting to access my own memories of windows, the first window that comes to mind is my Grandmother's kitchen window, I recall:

walking up to the house, ascending the three porch steps, gazing through the kitchen window, I stop for a moment and admire the scene as if a stranger seeing it for the first time. The wooden table covered with a faux plastic tablecloth, the tile floor chipped and slightly askew, the ceiling stained above the stove from years of cooking. As I enter, the aroma of delicious food fills my nose. As my father follows me in, he instantly gravitates to the snacks my grandmother has left out. I follow his lead. We seat ourselves and wait for my uncle, he is usually late by a few minutes every Sunday. As we talk, I stare out the kitchen window in anticipation for my uncle to arrive. Half listening to the action in the kitchen, my grandfather annoys my grandmother kicking her chair until she finally notices and gives him shit. My uncle arrives and my grandmother's dog runs out to greet him. He smiles and pets the dog. Through the window it seems as though I am watching someone, I am unfamiliar with. Once removed from the form of the window and into the house he

will turn back into the uncle I am familiar with, melancholy and somewhat distant. As we continue to talk over Sunday dinner I find myself daydreaming looking out the kitchen window, beyond it the porch swing, the driveway usually filled with potted plants and rocks painted all kinds of vibrant colours by my grandfather, a large rectangular yard lays beyond that edged with a small forest of trees the other side of them is a corn field, rarely used. I imagine myself in the trees climbing and jumping, I imagine what activities could be done in the well-manicured lawn that lays before them. Each car I watch come over the bridge or down the road spirals off a different story in my head until finally I hear my uncle exclaim “Well, I best head off” followed by my grandmother’s insistence that he take leftovers with him. This snaps me back to reality and I help gather plates and say my goodbyes. As I leave I look through the window again one last time to catch a glimpse of my grandmother tidying up the rest of dinner, my grandfather wandering around looking for his cigars. I close my eyes and absorb the image, to hold until next time.

[Kitchen Window #2, from *Near Poet*]

However, as Bachelard states by recalling these memories, we add to our store of dreams: we are never real historians, but always near poets, and our emotion is perhaps nothing but an expression of poetry that was lost.²¹ Julia Kristeva aligns with Bachelard and notes that imagination augments the values of reality,²² because of this influence of imagination on reality our memories are always faulty. When recreating an architectural object we are creating “architectural doubles.”²³ Objects, as Claudia Perren states in *Perception in Architecture: Here*

²¹Gaston Bachelard, *The Poetics of Space* (Massachusetts: Beacon Press, 1992), 6.

²²Julia Kristeva and Leon S. Roudiez, *Powers of Horror: An Essay on Abjection* (New York: Columbia University Press, 2002), 7.

²³ Claudia Perren, *Perception in Architecture: Here and Now* (UK: Cambridge Scholars Publishing, 2015), 4.

and Now, provoke and enable new and complex relationships between subject, site, and sight.

Perren states that:

... the perception of the architectural double, with perception understood here as an active and cognitive process of our sense-making of the world, merges into the pronounced experience of a split presence where the architectural doppelgängers are neither identical twins nor complete reconstructions, defined by difference and, possibly, constructed across several sites and temporalities.²⁴ *Near Poet* is my attempt to bring this theory into the physical realm by recreating and trying to translate a history of a personal window to determine the alteration of memory and perception. When the work is complete, am I left with an exact copy? Because we cannot tangibly demonstrate our memories or nostalgia for other people, no matter how hard we try to represent or convey our personal memories to others, they are always subject to minor alterations, potential confabulations. This window for the audience is intended to work as a built space that allows for physical interaction and defamiliarization through the physical use of the window, opening and closing, locking and unlocking and sight of raw, unfinished material not usually visible promote the viewer access their own memories and perceptions revolving around windows. As artist Masao Gozu states windows are a mirror to see oneself through time.²⁵ Gozu's work in *Windows to New York* (2021),²⁶ recreates windows as exact copies, found throughout his travels and are generally sash windows or small openings, that are displayed in the gallery surrounded by one or two feet of brick exterior. Gozu proposes that these windows function as vessels of passing time, holding and containing memories and histories, that beyond

²⁴ Claudia Perren, *Perception in Architecture: Here and Now* (UK: Cambridge Scholars Publishing, 2015), 2.

²⁵ "In New York: Windows and Looks: Articles," Window Research Institute, last modified July 12, 2018. Accessed May 1, 2023, <https://madoken.jp/en/article/4464/>.

²⁶ "Windows to New York," Court Tree Collective. Accessed May 11, 2023, <https://courttree.com/Masao-Gozu-Windows-to-New-York>.

holding personal histories and memories, the way people use windows says a lot about their lifestyle, whether they would hide behind them, lean out of them.²⁷ While our memory or history surrounding an object like a window are often thought to coincide with fact, as objective representations of past events, memory error plays a significant role in how we remember and interpret events, error has the ability to affect our memories and influence our understanding of history. When we remember an event, we may not remember every detail, but our minds can fill in the missing pieces based on our expectations and prior experiences, this can result in false memories that feel just as real as actual memories. This role of error in our memories is pointed out by Bachelard. He notes for example that when we experience a house, we not only experience the house we are witnessing but we experience every house we have ever been in, in our mind. Therefore, our experience of a true “reality” but an alternate one is created through the combination of what we see paired with our imagination and memory of similar spaces.²⁸ Therefore, as Bachelard states, our recollection of history is not fact, but a retelling of emotion connected to that object. Windows provide openings for light and air to enter a room, they allow us to see views otherwise unseen without the window open while maintaining the illusion of safety, of being “inside” versus “outside.” Developments in construction, began to change windows as a use purely for light and by the Medieval period glass started to be used as a more decorative feature than simply a way to let light in.²⁹ These more decorative windows led to the multi-pieced and coloured stained-glass windows that became popular in churches “these

²⁷ “In New York: Windows and Looks: Articles,” Window Research Institute, last modified July 12, 2018. Accessed May 1, 2023. 2018, <https://madoken.jp/en/article/4464/>.

*Confabulation refers to generating a false memory without the intention of deceit also known as “honest lying.”

²⁸ Gaston Bachelard, *The Poetics of Space* (Massachusetts: Beacon Press, 1992), 47 .

²⁹ “The History of Glass in Architecture,” University of Sheffield, last modified September 7, 2011. Accessed May 1, 2023, <http://www.giwis.org/the-history-of-glass-in-architecture.php>.

windows related the stories of the bible to an illiterate populace and spurned the architectural trend of searching for transparency, luminosity and weightlessness through glass.”³⁰ During the Renaissance we see the development of the French window, a type of large casement window that has remained the accepted form in Europe ever since. This type of window is a long and usually extends to the floor, its shape narrower than a normal window with two wooden sashes, hinged so that they can swing open and closed, each window is separated into three or more components. Later in the 17th century, vertical sliding sash windows that we continue to use today began to appear. The “double-hung window such as the one used for *Near Poet* was developed in England, becoming standard in that country and in the United States during the 18th and 19th centuries.³¹ Windows such as the “French Window” a type of large casement window have been used by artists such as Marcel Duchamp in his piece *Fresh Widow* (1920),³² a miniature French window with a painted wood frame, and panes of glass covered in black leather to explore ideas of sight and perception as well as the “the idea of the window to take a point of departure, as...I used a brush, or I used a form, a specific form of expression.. I could have made 20 windows with a different idea in each one.”³³ Gaston Bachelard discusses Duchamp’s attraction to windows and their ability to explore our existential spatiality. Bachelard associated windows with the metaphysical space of human existence an experience that allows a dialectical view of “in” and “out” made possible in a single glimpse, leaving the window itself as a necessary place to contemplate division and

³⁰ “The History of Glass in Architecture,” University of Sheffield, last modified September 7, 2011. Accessed May 1, 2023, <http://www.giwis.org/the-history-of-glass-in-architecture.php>.

³¹ “Window,” Encyclopædia Britannica, last modified June 4, 2020. Accessed March, 31, <https://www.britannica.com/technology/window>.

“Fresh Widow,” MoMA Learning. Accessed May 11, 2023, https://www.moma.org/learn/moma_learning/marcel-duchamp-fresh-widow-1920/.

³³ Anne D'Harnoncourt and Kynaston McShine, *Marcel Duchamp* (New York: Museum of Modern Art, 1973), 291.

isolation, as well as to relieve us of “exterior dizziness.”³⁴ Similar to Duchamp’s *Fresh Widow*, *Near Poet* is used as a point of departure to attempt a specific form of expression that allows *Near Poet* to be used as a jumping off point for viewers to access their own memories and emotions surrounding windows to come forward. *Near Poet* also allows for the further exploration of Bachelard’s dialectical view of “in” and “out” with the rare opportunity to examine a window 360 degrees around in one motion as well as being able to see the inner workings promotes investigation of what the function of a window actually.

³⁴Gaston Bachelard, *The Poetics of Space* (Massachusetts: Beacon Press, 1992), 21.

CHAPTER FOUR: Systems of Measure

4.1: Rulers and Ropes [Image 09]

Rulers and Ropes consists of two iterations of hand-made measuring instruments that recall the history of measurement and its connection to the body. Standardized measurement has been around since the very earliest civilizations and was needed for things like trade, construction and agriculture. Measurement begins with a definition of the quantity that is to be measured, and involves a comparison with some known quantity of the same kind. The (male) human body was the perfect original reference for myself to start given the reference to historical measurements[-\\ made using men as precedent, the body also has a social or communal connection as almost everyone shares the same extremities and therefore can compare with a quantity that is not exact but of the same kind. If the object or quantity to be measured is not accessible, such as a specific body part or object needed for direct comparison, it is converted or “transduced” into an analogous measurement signal.³⁵ This need for a direct and consistent comparison of length and distance led to the first measurement that gained universal appeal, the Egyptian cubit. Developed around 3000 BC the cubit was based on the length between the elbow and an extended middle finger. Since people have different arm lengths, the Egyptians developed a “royal cubit” which was preserved in the form of a black granite rod against which everyone could standardize their own measuring rods.³⁶

To build *Iteration III: Gamma*, I constructed the series *Rulers and Ropes* using spruce and sisal rope and followed the Greek System of the “attic foot” that revolves around

³⁵ “Measurement,” *Encyclopædia Britannica*, last modified November 11, 2022. Accessed March 31, 2023, <https://www.britannica.com/technology/measurement>.

³⁶ “Measurement,” *Maths History*, last modified April, 2003. Accessed May 1, 2023, <https://mathshistory.st-andrews.ac.uk/HistTopics/Measurement/>.

measurements of the finger (daktylos), knuckle (kondylos), palm (palaiste or doron), half foot (dichas or hemipodion), distance from out stretched thumb to index finger (lichas), straight hands width (orthodoron), span of all fingers (spithame), foot (pous), forearm (pygme), elbow to fist (pygon), and elbow to tip of middle finger (pechys), and inserting the proportions of my own body as the reference for each of the *Rulers and Ropes*.

Smaller units of length				
Unit	Greek name	Equal to	Modern equivalent	Description
daktylos	δάκτυλος		19.3 mm (0.76 in)	finger
kondylos	κόνδυλος	2 daktyloi	38.5 mm (1.52 in)	knuckle
palaistē or dōron	παιστική, δῶρον	4 daktyloi	77.1 mm (3.04 in)	palm
dichas or hēmpodion	δίχας, ἡμιπόδιον	8 daktyloi	154.1 mm (6.07 in)	half foot
lichas	λιχάς	10 daktyloi	192.6 mm (7.58 in)	distance from thumb-tip to tip of outstretched index finger ^[2]
orthodōron	ὀρθόδωρον	11 daktyloi	211.9 mm (8.34 in)	straight hand's width
spithamē	σπιθαμή	12 daktyloi	231.2 mm (9.10 in)	span of all fingers
pous	πούς	16 daktyloi	308.2 mm (12.13 in)	foot
pygmē	πυγμή	18 daktyloi	346.8 mm (13.65 in)	forearm
pygōn	πυγών	20 daktyloi	385.3 mm (15.17 in)	distance from elbow to fist
pechys	πῆχυς	24 daktyloi	462.3 mm (18.20 in)	cubit

Except where noted, based on Smith (1851).^[3] Metric equivalents are approximate.

Figure.2

Smaller units derived from the daktylos												
	daktylos	kondylos	doron	dichas	lichas	orthodoron	spithame	pous	pygme	pygon	pechus	royal pechus
daktylos	1	1/2	1/4	1/8	1/10	1/11	1/12	1/16	1/18	1/20	1/24	1/27
kondylos	2	1	1/2	1/4	1/5	2/11	1/6	1/8	1/9	1/10	1/12	2/27
doron	4	2	1	1/2	2/5	4/11	1/3	1/4	2/9	1/5	1/6	4/27
dichas	8	4	2	1	4/5	8/11	2/3	1/2	4/9	2/5	1/3	8/27
lichas	10	5	2 1/2	1 1/4	1	10/11	5/6	5/8	5/9	1/2	5/12	10/27
orthodoron	11	5 1/2	2 3/4	1 3/8	1 1/10	1	11/12	11/16	11/18	11/20	11/24	11/27
spithame	12	6	3	1 1/2	1 1/5	1 1/11	1	3/4	2/3	3/5	1/2	4/9
pous	16	8	4	2	1 3/5	1 9/11	1 1/3	1	8/9	4/5	2/3	16/27
pygme	18	9	4 1/2	2 1/4	1 4/5	1 7/11	1 1/2	1 1/8	1	9/10	3/4	2/3
pygon	20	10	5	2 1/2	2	1 9/11	1 2/3	1 1/4	1 1/9	1	5/6	20/27
pechus	24	12	6	3	2 2/5	2 2/11	2	1 1/2	1 1/3	1 1/5	1	8/9
royal pechus	27	13 1/2	6 3/4	3 3/8	2 7/10	2 5/11	2 1/4	1 11/16	1 1/2	1 7/20	1 1/8	1
meters	0.01926	0.03853	0.07706	0.15411	0.19264	0.21191	0.23117	0.30823	0.34676	0.38529	0.46234	0.52014

Figure.3

Each “Ruler” is constructed using ten sections of wood (1/4in x 1in”), cut to the length of a body part, then hinged with copper rivets to allow a fluid unfolding of the sections. The

wooden sections are numbered 1-10 with one side of the ruler marked with English terminology and the other side marked in the Greek, similar to how a common ruler would have imperial (inches) on one side and metric (centimetres) on the other. Similarly, each “Rope” is juxtaposed to a body part and knotted the same length ten times. The multiples of ten further reference metric systems based on exponents of ten, as well as archaic systems that counted the body’s ten fingers and ten toes.

The idea of reverting back to this form of bodily measurement shared by Egyptians, Greeks and Romans was in response to *Stair Iteration: Alpha*. In the project *Stair Iteration I: Alpha*, I deliberately altered the riser height of the fourth step by one quarter inch to alter a visitors’ experience when the object was viewed or used. However, this subtle change was lost given the measuring errors in cutting and assembling *Stair Iteration I: Alpha*. It was clear I needed to approach the creation and alteration of the stairs in a different way that more clearly disrupted the proportion of stairs. The creation of a set of hand-made tools constructed using my own body measurements rather than standard imperial or metric systems, were used while building *Stair Iteration III: Gamma*. The process of using these personalized tools closely considers the importance of the builder’s hand and body in the making of the built environment and the connection between our own bodies and the surrounding architecture.

4.2: Growth Chart | Social Body [Image 10]

The method of ropes and knots used for bodily measurement is applied to a separate project in the gallery that records the height of visitors to the gallery. This interactive component in the exhibition includes written instructions for individual and voluntary participation. Visitors are invited to use the ¼-inch sisal rope made available to measure the length of their bodies.

Participants will knot each end of the rope, once at the beginning to mark the base of the floor where they are standing and again at the the top of their head to create a ruler of body length. The participants will then adhere their knotted rope to the gallery wall with their names to show the juxtaposition and abundant differences in growth and measurement as well as emphasis the inaccuracy present when using the body as a measurement device. *Growth Chart / Social Body* is akin to the measuring system commonly used in domestic spaces such as on door frames or walls, to chart the growth of children by marking their changing height. Signaling how experience and understanding of time, perception, and memory change, this work is comparable to *Measuring the Universe* by Roman Ondak³⁷ (2007), where participants who enter the gallery are left with instructions to mark their height against the gallery wall with their name and date, leaving a black abyss of lines around the centre of the wall. Marks on the wall, found in works like *Growth Chart / Social Body*, function on the level of personal and public, oscillating between the individual and the collective. The use of the body for measurement also references Leonardo da Vinci's drawing, *Vitruvian Man* (c. 1490) and the combination of art and science in the search for the perfect proportions of the (male) body. Measurements often reflected the prevailing cultural and societal standards of the ideal male body across different civilizations and time periods and these measurements continued to change as the idea of the perfect male body developed. For example in ancient Greece measurements were based off of the physical attributes of the most athletic for their "perfect" proportions. However, while using the body as a measurement tool can be useful, it is important to remember that it is not always accurate or precise. Although the same can be said of our adopted metric and imperial systems of

³⁷"Roman Ondak 1966 Measuring the universe 2007," TATE, last modified September, 2016. Accessed May 1, 2023, <https://www.tate.org.uk/research/publications/performance-at-tate/case-studies/roman-ondak-measuring-universe>.

measurement that have been refined over centuries in terms of standardization and reliability, we must remember its origin and its leniency toward error. Just as different bodies yield different measurements i.e bodies are in constant flux, in France alone there were over 800 different names for measuring variances which meant there were around 250,000 units of measurements.³⁸ Because of measurements origin and leniency toward error Russel Legacy states we must look at an error or “glitch” as something that can be considered a correction to the “machine,” and in turn might produce, a positive departure³⁹ from the status quo. Systems of measurement continue to evolve and change, while always involving some form of interaction between the object and the observer or observing instrument, and there is always an exchange of energy.⁴⁰ This means specific values are vulnerable to error – such as errors of observation (instrumental errors, personal errors, system errors, and random errors); errors of sampling; and direct and indirect errors (in which one erroneous measurement is used in computing other measurements).⁴¹ In 1975, Western Europe adopted a unified system of measurement in which the metre was created and exported throughout the world.⁴² The metre was initially defined as one ten-millionth of the distance on the Earth’s surface from the north pole to the equator, on a line passing through Paris. Expeditions from 1792 to 1799 determined this length by measuring the distance from Dunkirk to Barcelona with an accuracy of about 0.02%.⁴³ The definition of a metre has now

³⁸ “History of Measurement,” YouTube, last modified April 18, 2014, Accessed May 1, 2023, <https://www.youtube.com/watch?v=NValmBwli1Q>.

³⁹ Legacy Russell, *Glitch Feminism: A Manifesto* (UK: Verso, 2020), <https://www.legacyrussell.com/GLITCHFEMINISM>

⁴⁰ “Measurement,” Encyclopædia Britannica, last modified November 11, 2022. Accessed, April 19, 2023, <https://www.britannica.com/technology/measurement>.

⁴¹ “Measurement,” Encyclopædia Britannica, last modified November 11, 2022. Accessed, April 19, 2023, <https://www.britannica.com/technology/measurement>.

⁴² “History of Measurement,” YouTube, last modified April 18, 2014. Accessed May 1, 2023, <https://www.youtube.com/watch?v=NValmBwli1Q>.

⁴³ “National Physical Laboratory,” NPL Website, accessed April 19, 2023, <https://www.npl.co.uk/si-units/metre>.

changed and was redefined more accurately in 1983. One metre is now defined as the distance that light travels in a vacuum in little over 300 millionths of a second.⁴⁴ *Growth Chart | Social Body* acknowledges the errors of observation, sampling, and direct and indirect errors previously mentioned by having multiple people participate and allowing participants to use the tools to mark their own height promoting error in these values and challenging the patriarchal progression of measurement from the male body and the search for the vitruvian man by creating a communal system of measurement consisting of multiple cultures and genders that have attended the gallery.

⁴⁴ “History of Measurement,” YouTube, last modified April 18, 2014. Accessed May 1, 2023, <https://www.youtube.com/watch?v=NValmBwli1Q>.

CONCLUSION

Stair Iteration III: Gamma, Recollect, Near Poet, Rulers and Ropes, and Growth | Social Body revolve around the thematic arcs of movement, measurement and memory. The investigation of these themes through these projects call for the examination of common architectural forms, like stairs and windows and a removal from their everyday locations in houses or office buildings placing them into new spaces, opening up built environments. Not a permanent removal from architecture but, the recreation and placement of these structures into environments that would not typically require them, like galleries and other open spaces where stairs, for example are not needed. This as previously mentioned would create “architectural doubles,”⁴⁵ that are neither identical or complete reconstructions, defined by difference and, possibly, constructed across several sites and temporalities.

My thesis work proposes an examination of how bodies navigate these architectural structures and the spaces around them.

The production of a copy from a copy explores the potential to create difference through repetition. The potential of difference and repetition helps to investigate the previous questions of a challenged memory, perception and truth, or original historical narration as well as the proprioception, the sense we use to perceive the position and movement of our body, that are investigated and experienced through the works *Stair Iteration III: Gamma, Retrospect, Diary of Alpha, Near Poet, Ropes and Rulers and Social/Growth Chart*.

⁴⁵ Claudia Perren, *Perception in Architecture: Here and Now* (UK: Cambridge Scholars Publishing, 2015), 4.

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IMAGES



Image 01: *Stair Iteration I: Alpha* (studio view)



Image 02: *Stair Iteration II: Beta* (studio view)



Image 03: *Stair Iteration III: Gamma* (Penny Gallery, Lethbridge, AB, 2023)

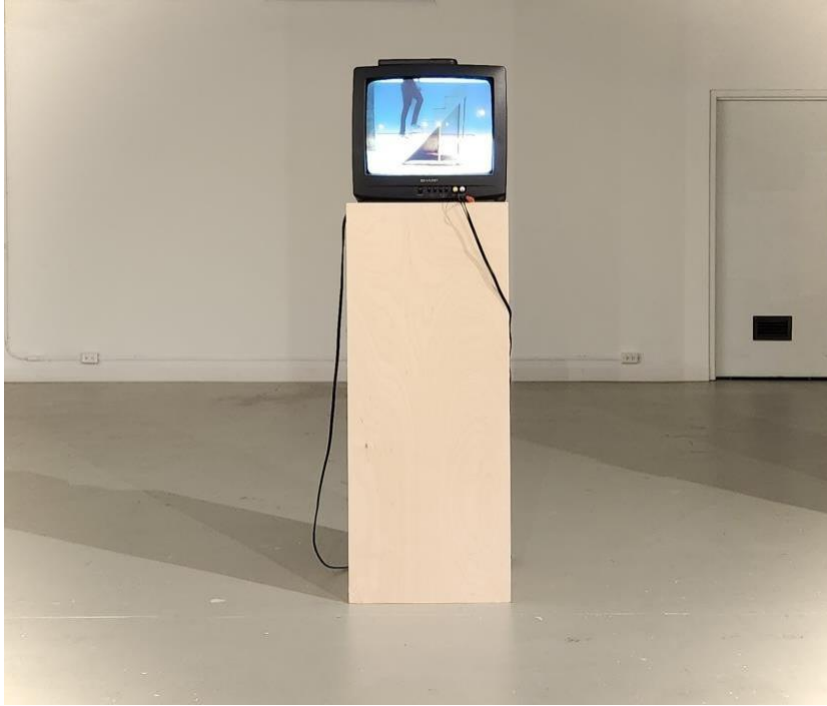


Image 04: *Diary of Alpha* (Penny Gallery, Lethbridge, AB, 2023)



Diary of Alpha (Detail)



Image 05: *Studio Window Archive* (Studio)



Image 06: *Retrospect* (Penny Gallery, Lethbridge, AB, 2023)
Retrospect (Detail)

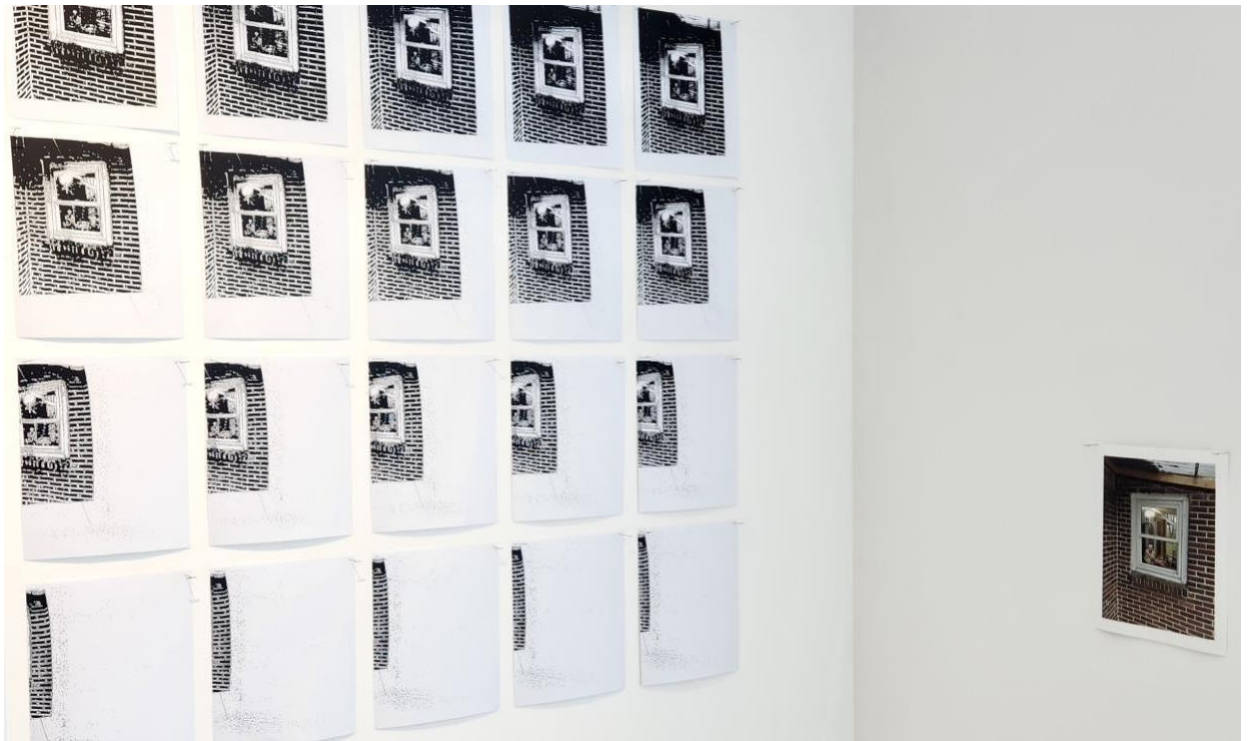




Image 07: *Grandmother's Window* (Wallaceburg, Ontario)



Image 08: *Near Poet* (CASA Gallery, Lethbridge, AB, 2022)



Near Poet (Detail)



Image 09: *Ropes and Rulers* (Penny Gallery, Lethbridge, AB, 2023)



Rulers (Detail)



Image 10: *Growth Chart / Social Body* (Penny Gallery, Lethbridge, AB, 2023)



Growth Chart / Social Body (Detail)