

Mediations of Shattered Water
Environmental Intimacy & the Dissolution of the Self

by
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A thesis
presented to the University of Waterloo
in fulfillment of the
thesis requirement for the degree of
Master of Architecture

Waterloo, Ontario, Canada, 2017
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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of this thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

Abstract

In a time of accelerated environmental degradation, a human-centric approach to engagement has engendered a pervasive cultural passivity towards the environment. This fatalistic detachment amplified by technological advances and, in Canada, the vastness of our landscape demands that we reanimate our perception of the natural world. *Environmental intimacy* aims to dissolve the “I-it” relationship through an affective merging of subject and object, recognizing that just as we move through the landscape, the landscape moves through us, resulting in heightened ecological attunement.

This research uses the sensing human body as the primary site of spatial perception. With a camera strapped to my body I encounter waterfalls. From these encounters, the sensations of shattered water are cultivated and reformed into cast plaster and concrete artifacts, deterritorializing the waterfalls from their physical location into affective material formations. These crafted artifacts are the distillation of my encounters with the shattering of water, extending the movement of the body through the landscape into the craft and navigation of architectural space.

The process of translation created to test the potential of *affective deterritorialization* involves the technical mediums of photography, digital editing, computer modelling, Computer Numerical Control (CNC) routing and vacuum forming to develop the sensuous cast surfaces. These processes bring the digital image back into the material world, resulting in a new form of cast landscape detached from a geographical location while resonant with the forces moving through it. These castings are deterritorialized landscapes of sensations which engage the integral and reciprocal relationships between the body and its environment.

Acknowledgments

Special thanks to my supervisor Dereck Revington, for his constant enthusiasm, support, and incredible teaching skills as I engaged with the, previously foreign, territories of affect and sensation. With his guidance, I have immersed myself in a world of thinking through making, and of researching through design – finding absolute joy in the process of creating. I would also like to thank my committee member Anne Bordeleau, and my internal reader Jane Hutton. Anne, for her expertise with casting and for engaging my work with dedication and a critical eye. Jane, for asking the essential questions which were at the very heart of this thesis.

I would also like to thank Heinz Koller and Dan Jessel for their guidance, patience, and often bad practical jokes as I took up more than my fair share of space in the workshop.

Lastly, in the making of this thesis, the support and encouragement of my colleagues, friends and family has been integral. Thank you to my parents, your continuous support and endless excitement towards my work has been truly incredible. To all of you who joined me on the many adventures that make-up the foundation of this thesis, I cannot thank you enough. Whether is it climbing on the escarpment or hiking along alpine ridges let us forever continue to explore, inspiring each other along the way.

Dedication

This thesis is dedicated to my Grandmothers, Pamela Smith and Mary Holbrook.

I have been given opportunities that they could have only ever dreamed of, and without the gift of their intellect, creativity, resilience, and pure ferocity I would not be where I am today.

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Introduction

Accelerating technological advances and a persistent, cultural need to tame the wild has engendered a physical and perceptual distancing of the body¹ from landscape. Canadian culture is partially rooted in a fearful relationship with the unforgiving wilderness.² Dominance is asserted through the exploitation and extraction of resources, and the landscape is romanticized only once it is tamed. A more controlled experience of “nature” quickly becomes the careful framing of a still image, with a screen or lens now the omni-present veil between the body and landscape. This still, or lifeless, view of the environment reasserts a neglectful “I-It” relationship with the landscape. As Northrop Frye writes, “Nature is seen by the poet, first as unconsciousness, then as a kind of existence which is cruel and meaningless, then as the source of the cruelty and subconscious stampedings within the human mind.”³ Compounded by the lens of technology and the vastness of the land, in Canada a mental and physical detachment from an “unconscious” landscape results in the separation of the rational and the emotional, where economic gain is valued over environmental responsibility. Collapsing the distance between the body and landscape becomes a task of reanimating the powerful environment forces which sustain us.

Early design intentions confronted this distancing through the creation of a new spatial experience, utilizing data gathered from remote sensing technologies in the production of a sensory experience. At first, the chosen sites of study were at-risk sites in Canada: landscapes in

1. When reference to *the body* is made it is referring to the human body, unless otherwise indicated.
2. Margaret Atwood, *Survival: A thematic Guide to Canadian Literature*, (Toronto, M & S: 2004 c1972), 59.
3. Northrop Frye, *The Bush Garden: Essays on the Canadian Imagination* (Toronto, Anansi: 1971), 144.

jeopardy as a consequence of the human distancing from nature in a rising technological culture. Often located in the North, these sites, such as the Peel Watershed in the Yukon territory, generally remain outside of southern cultural perception due to their geographical isolation, yet continue to be threatened by the far-reaching impacts of human actions. By bringing the affective qualities of these landscapes to an architectural experience, it was my original aim to establish a sympathetic, or intuitive, understanding of these untouched yet vulnerable territories. However, issues of technological mediation, of both data and experience, became clear with the mediums at my disposal being just quantitative data and sublime representation. In the case of these remote territories, the sensorial information I required was not accessible through the lens of remote sensing. As Laura Kurgan says of maps in *Close Up at a Distance*: “Rather than interpretations of information that they are, we too often see them simply as representations and descriptions of space.”⁴ The image taken from a distance “...tells only a story, not *the* story, of what is going on...”⁵ This was precisely the issue I was confronted with when considering remote landscapes. While these forms of mediation, such as aerial photography or mapmaking, are not to be dismissed, I could only learn one side of the story through the study of these landscapes from afar.

Only when I began to document interactions with my immediate landscape was I confronted with the intensity of intimacy, a mode of perception that dissolves the boundaries of the body, and the possibilities offered by the specificity of sensation. My initial visit to Tew Falls in the Dundas Valley was the first time I used a GoPro, a small durable camera suited to recording physical activities, to document my interaction with a landscape. Using the chest-mounted GoPro soon became imperative, as a mode of documentation I found it opened up the landscape, as opposed to distancing the observing eye from it.

Since this initial encounter, I have used a GoPro to record various activities and environments from rock climbing to cliff jumping, from alpine ridges, to the endless horizon of Georgian Bay. Among these

4. Laura Kurgan, *Close Up at a Distance: Mapping, Technology, and Politics* (Brooklyn, NY: Zone Books, 2013), 16.
5. *Ibid.*, 31.

encounters, it was those engaging the movement of waterfalls, and subsequently the sensation of shattered water, that resonated with the most intensity. Says Gaston Bachelard, “He will recognize in water, in its substance, a type of intimacy that is very different from those suggested by the ‘depths’ of fire or rock.”⁶ In this thesis, I explore the essential role of intimacy in understanding our environment, specifically in relation to the sensation of shattered water. For when water is broken, it shatters, and it resonates within the body at different intervals as the body interacts with its surroundings. In this experience of falling water, my own control is stripped away. Working with water’s constant flow is the ultimate reanimation of a culturally “unconscious” nature. “One drop of powerful water suffices to create a world and to dissolve the night...” says Bachelard, “Water thus given a dynamic force is a seed; it gives life an upward surge that never flags.”⁷ The continual falling of shattered water is equally prone to give and take life, giving way to the essential vitalism of the natural environment. Even when deterritorialized, the micro vibrations of shattered water, which move through the body, can be affective, changing the perception of those who engage with the material and spatial semblances. Through these interactions, one becomes aware of the fluid relationship that exists between the body and its surroundings, and environmental intimacy can be fostered.

Environmental intimacy recognizes that, just as we move through the landscape, the landscape moves through us, blending the threshold between the human and non-human, the organic and non-organic. To achieve environmental intimacy is to relinquish the “I” for the “non-I” world view. Integral to the process of design-research, the chosen waterfalls have become the means to elicit a broader understanding of the relationship between the body and its natural surroundings, exploring the notion of environmental intimacy in greater detail. This is particularly important within the current context of Global Warming, in which accelerated ecological degradation is dramatically, yet for many still imperceptibly, altering the natural environment. When quantitative data and statistical activism are insufficient to create authentic change, one can turn to the creation of

6. Gaston Bachelard, *Water and Dreams: An Essay on the Imagination of Matter* (Dallas: Pegasus Foundation, 1983), 6.

7. *Ibid.*, 9.

affectual spaces and objects as I choose to do here. The resulting images and casts promote the necessity and value of intimate encounters not only with our natural surroundings, but also designed objects and spaces that foster sympathy towards the environment.

*

I have translated my encounters with shattered water into a spatial, material form through a process of *opening*, *breaking apart*, and *entering*. Together these actions inform an operative and pictorial diagram from which the material semblances of shattered water emerge. The form of the diagram, says Gilles Deleuze in *Francis Bacon: The Logic of Sensation*, "... is indeed a chaos, a catastrophe, but it is also a germ of order and rhythm."⁸ It is with this definition that I frame the idea of my own diagrams: as processes that do not have a definite start or end, guided by intentions more so than outcomes. In this thesis, two types of diagrams can be identified. The "operative diagram" is defined by the intense and formative actions of *opening*, and *breaking apart*, which attempt to rid the casts of cliché, while the act of *entering* allows for the sensation of shattered water to continually emerge past the point of creation. The "pictorial diagram" is the stretching and manipulation of lines, distorting the image of shattered water without eliminating the sensation that is primary to experience. Nested within one another, the pictorial is the visual demonstration of forces, while the operative speaks to an overarching process and continuity of experience. Through the creation of these operative and pictorial diagrams, a deterritorialized form of shattered water is cultivated. The casual observer is encouraged to engage with the physical casts; ultimately, the aim is for these casts to foster a new form of environmental intimacy.

8. Gilles Deleuze, *Francis Bacon: The Logic of Sensation* (Minneapolis: University of Minnesota Press, 2003), 83.

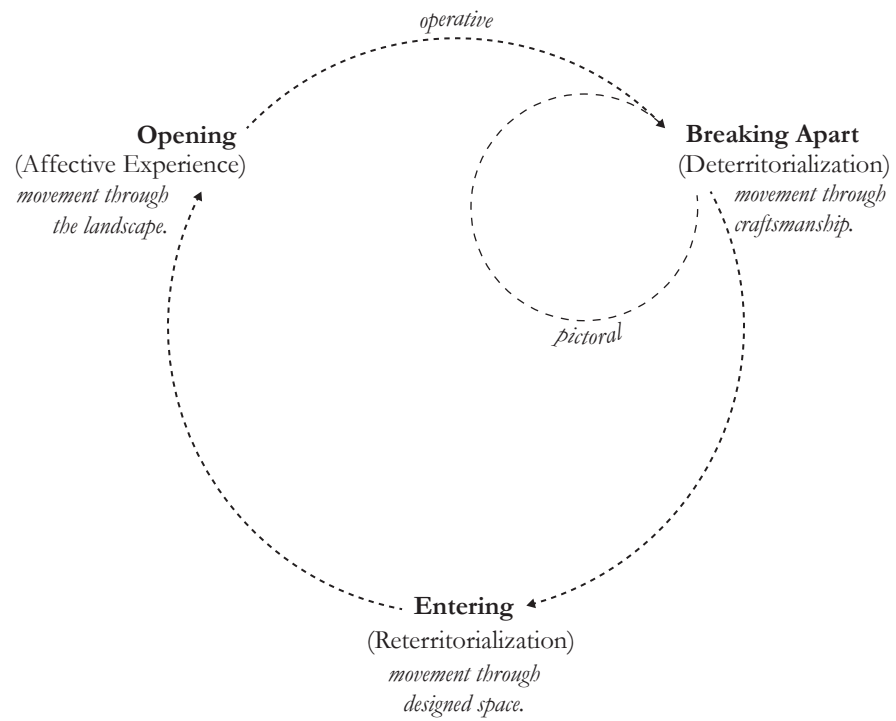


Figure 01. The pictorial diagram is nested within the operative diagram of environmental intimacy.

Opening is the direct interaction between the body and the physical shattering of water. The act of opening is chaotic and unfiltered, as the flesh of body is consumed by the forces of water and earth. It is a form of bodily research whose impression is fleeting, requiring the lens of the camera to extend the act of opening through time. Attached to my chest, the camera is the lens through which these places are captured, and through which the intimacy between the forces of water, rock and my own flesh is established. With the GoPro as a tool, I am unencumbered by the necessity to pause my movement to frame the landscape. Instead, I am free to engage, I can be open.



Figure 02. Opening to the landscape of Castle Mountain, 2016, Montgomery DeLuna.

Breaking apart is the act of creation: it pulls the intimacy of the documented encounters past the image and into a material form; it is a semblance removed from its place of origin, and yet maintains a resonating intensity. Working through the physical medium of casting allows for the sensation and affect of each surface to be registered in actuality. The documented waterfalls are a catalog of experience that inform the craft of the plaster and concrete artifacts, extending the movement of the body through the landscape into the movement of the craftswoman.



Figure 03. Breaking apart through the medium of casting.

Entering is the movement of the body in relation to the object or space after its creation. The form of environmental intimacy that emerges as a body interacts with the cast artifacts is accessible to anyone who interacts with them and the body once again becomes an integral method of measurement, gauging the intensity of sensation which remains after each phase of translation, from the experience of the landscape to the experience of the cast surfaces.



Figure 04. Environmental intimacy is established by entering the casts.

A note to the reader: Set between each of the four chapters is an encounter with the shattering of water, each named according to their geographical location. The narration of these events is written from the perspective of *the* body, as opposed to *my* body, making them accessible to the reader, something more than a personal narration.

Opening, Breaking Apart & Entering is an essay that develops a framework from which the images and objects presented in subsequent chapters can be contextualized. Here it is explored, in writing, how the movement of the body through the landscape can be extended into the craft and experience of space.

Capturing Sensation uses a collection of images taken using the GoPro to examine the notion of technological mediation, along with the relationships between the body, the landscape, and the lens of the camera.

Instilling Movement presents a collection of cast objects to explore the concept of “semblance,” as put forward by Susanne Langer in her seminal work *Feeling and Form*.⁹ A catalogue of these casts matches each object to a short excerpt from the events, creating resonance between the events and the crafted objects.

Pulling Threads presents a series of cast plates that engages the scale of the body. Through a meshwork of entangled lines, the five encounters documented throughout the thesis are brought into a single gesture, as the sensation of shattered water weaves between each of the five plates.

A speculative design proposal for the Toronto Winter Stations competition concludes the thesis. The project imagines how spaces of environmental intimacy can exist within the urban realm; it reasserts the importance of intimate encounters with the natural environment; finally, it contemplates the role of designed space to close the distance between the human body and the Canadian landscape.

9. Susanne Langer, *Feeling and Form: A theory of Art Developed from Philosophy in a New Key* (London: Routledge & Paul, 1953)

43.28° N, 79.98° W

23.04.16

*Tew Falls, Dundas, Ontario.
Height: 41m (134ft), Width: 9m (30ft)
Type: Plunge*

Plate 01. Approach





Plate 02. Skirt



Plate 03. Enter



Plate 04. Engage



Plate 05. Emerge



Plate 06. Extension

The steeply concaving river banks wrap themselves around the falls shielding them from view, gradually opening towards and encircling the flowing curtain of water. From the convergence of water and rock infinity disperses, sending vibrations through flesh and skin. Here, the water has a gravitational pull; soft at first, it conceals its extraordinary power through the guise of distance and the measure of space. Here, the life-giving and life-taking forces of water are shrouded by the gentle mist that coats the body in a film of moisture, as it bends itself to the edge of the water, twisting the horizon as it works to maintain balance. Hovering in the distance is an expansive limestone shelf suspended above to create the void that is enveloped by the thin veil of water. When nearing the suspended form, the body instinctively shifts in response to the compression from above as it enters into the void.

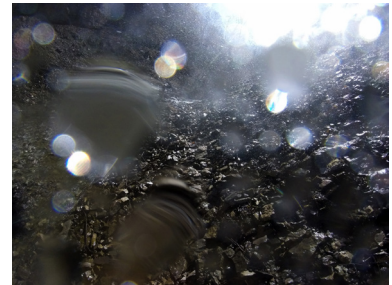
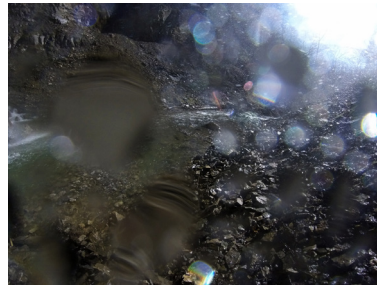




Plate 07. Absence

This voyage through the fall is the descent into nothingness. The landing is the void which is formed between layers of rock and water. In this void, the absence of air makes the body feel most alive. There is an acute awareness of the lungs and the rapid beat of the heart. In a space where air is almost absent, where with every breath the air is sucked out of the lungs, it is easy to confuse beauty with love, attraction with exhilaration – and so laughter escapes, and revelation holds the body close. The mind acknowledges it is not so much that air is no longer present, but that it seems to leave as quickly as it enters – a difference of pressure prevents it from lingering. Eyes closed, the body seems to be spun, set off balance as if standing high on a cliff; yet the body is surrounded, and sheltered by the earth.





Plate 08. Disperse

Pressing in from one side is rock and from the other water drops like thunder. Sound and light become one and are reflected throughout the landing. The movement of the water and the weight of the rock polarize the void. Eventually the flow of water pulls the body back from the precipice of nothingness, the body lands once more into the present moment emerging from the veil, into a newly obscured reality. The body turns back once more observing the heaviness of the falling water enlightened with a new understanding. What was once soft has hardened, what was once beautiful now exists on the precarious edge between exhilaration and terror.



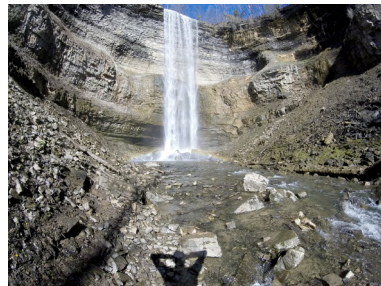


Plate 09. Snapshots 1/4

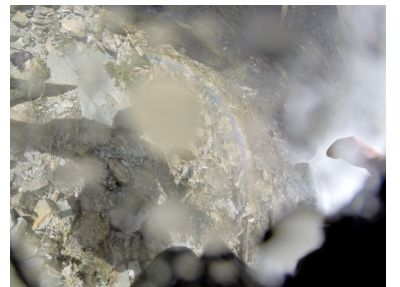
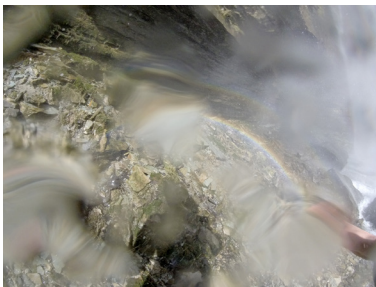
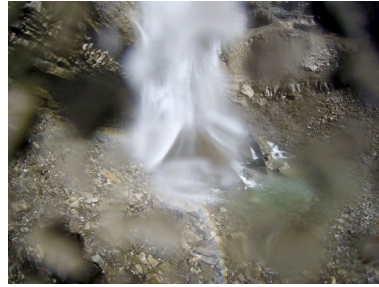


Plate 10. Snapshots 2/4

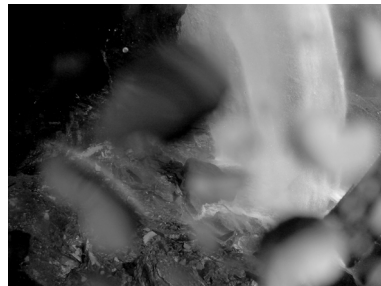
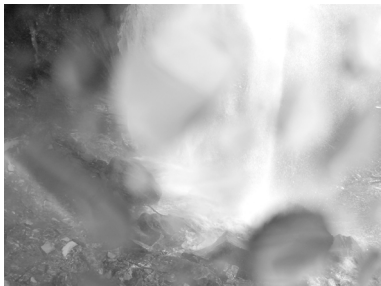
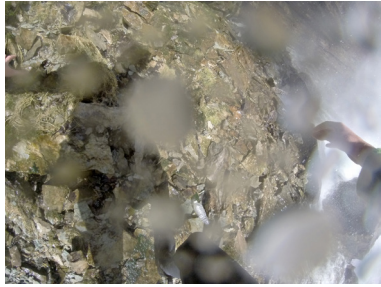


Plate 11. Snapshots 3/4

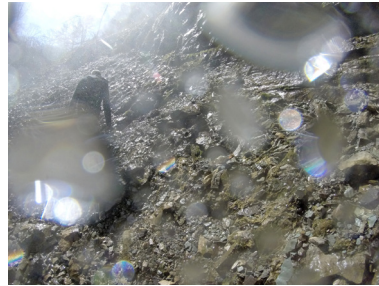


Plate 12. Snapshots 4/4

Opening, Breaking Apart & Entering

Extending the movement of the body into architectural space

Love makes you see a place differently, just as you hold differently an object that belongs to someone you love. If you know a landscape well, you will look at all other landscapes differently. And if you learn to love one place, sometimes you can also learn to love another.¹⁰

Notions of intimacy are often reserved for interactions that take place between two living beings. This human-centric approach to engagement with one's surroundings creates a perceptual divide between the human and non-human, displacing the natural environment within *neurotypical* sensory perception.¹¹ But the formation of intimate connections to our surroundings is fundamental to properly care for the natural environment. The above passage, drawn from Anne Michaels's *Fugitive Pieces*, speaks to how the intimate connections we hold not only to other people, but also to things, places, and landscapes, can transform our understanding of the unfamiliar, the not yet known, and the imperceptible.

Intimate connections are formed by extending the interior of the body and mind into space. In *The Poetics of Space*, Gaston Bachelard introduces the concept of "intimate immensity," relating the interior depths of the body to the vastness of the world and the cosmos. When the observer reaches the point of intimate immensity, the boundaries between her body and her surroundings perceptually dissolve, reaching a "Non-I" understanding. "...[I]mmensity in the intimate domain is intensity, an intensity of being, the intensity of a being evolving in a vast perspective of

10. Anne Michaels, *Fugitive Pieces* (Toronto: McClelland & Stewart, 1996), 82.

11. Erin Manning and Brian Massumi, *Thought in the Act: Passages in the Ecology of Experience* (Minneapolis: University of Minnesota Press, 2014), 4.

intimate immensity.”¹² This blurring of the person and her surroundings is also explored by Sir Francis Bacon. In an early painting entitled *A Study for a Figure in the Landscape* (1952), Bacon blurs the constraints of the physical body as vertical brushstrokes run through the body, ambiguously representing both the flesh of the body and the trunk of a tree. And again, in his later work *Jet of Water* (1988), the body is consumed by the force of water, to the point that only through the expression of the turbulent flow of water is the body perceived. These paintings visually demonstrate the dissolution of the self, rendering the figure and its surroundings as equally dynamic forces.

However, this perceptual relationship between the body and its surroundings can easily be lost, Gregory Bateson recognizes this in his essay “Effects of Conscious Purpose on Human Adaptation”:

A question of great scientific interest and perhaps grave importance, is whether the information processed through consciousness is adequate and appropriate for the task of human adaptation. It may well be that consciousness contains systematic distortions of view which, when implemented by modern technology, become destructive of the balances between man, his society and his ecosystem.¹³

Bateson outlines how the process of adaptation in cybernetic networks is undermined by the shortcomings of human consciousness. Adaptation is a process beginning with an applied exterior force that propagates through a system in such a way that it remains homeostatic.¹⁴ However, adaptation to maintain ecological stability is not always achievable; an ecosystem can be inflicted with an intensity of change leading to the eventual collapse of ecological processes. To Bateson, human consciousness has the potential to create these discrepancies. Distortions of the mind transform non-linear cybernetic processes, or governing loops, into linear arcs of thought excluding select variables to achieve a desired result.¹⁵ By these means, human purpose and attention can become destructive. “Conscious man,

12. Gaston Bachelard, *The Poetics of Space* (Boston: Beacon Press, 1994), 193.

13. Gregory Bateson, *Steps to an Ecology of Mind* (New York: Ballantine Books, 1983), 440.

14. *Ibid.*, 441.

15. *Ibid.*, 445.

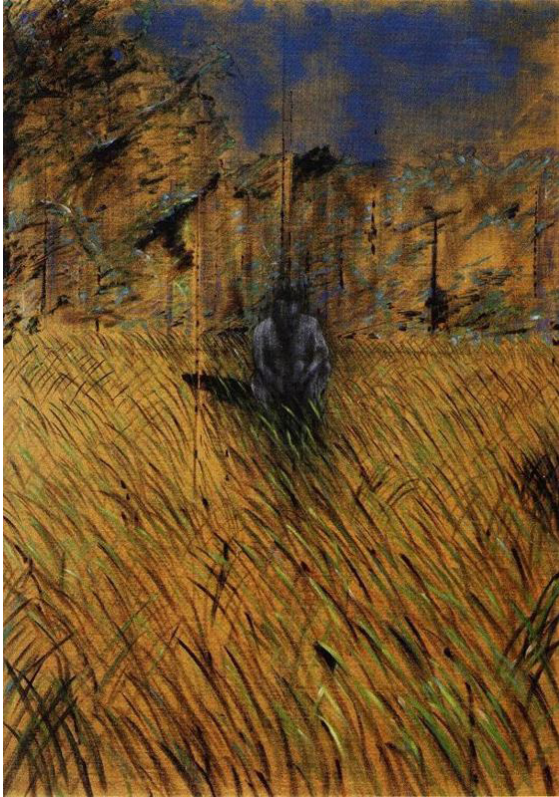


Figure 05. *Study for a Figure in a Landscape*, 1952, Sir Francis Bacon



Figure 06. *Jet of Water*, 1988, Sir Francis Bacon.

as a changer of his environment, is now fully able to wreck himself and that environment – with the very best of attentions.”¹⁶ These conscious distortions, especially during a time of “self-maximizing entities”¹⁷ and capitalist culture, result in the separation of the rational and the emotional, and of economic gain from environmental responsibility.

In *The Three Ecologies*, Felix Guattari, also critical of the capitalist and arborescent structure of society, frames the concept of “ecosophy” as a new approach to address these harmful discrepancies. Ecosophy can be defined as an ethico-political articulation that demonstrates the fluid relationship between the environment, social relations, and human subjectivity. Guattari relates ecosophy not just to environmental health, but also social and political well-being.¹⁸ Later in the text, he goes on to identify a human inability not just to implement technological innovations – which are available to heal the degrading environment – but also an inability for human consciousness to perceptually understand the issues at hand.

The increasing deterioration of human relations with the socius, the psyche and ‘nature’, is due not only to environmental and objective pollution but is also the result of a certain incomprehension and fatalistic passivity towards these issues as a whole, among both individuals and governments.¹⁹

To confront this “fatalistic passivity,” ecosophy requires thinking transversely across social, mental, and environmental processes. Guattari lists a series of mechanisms to bring the idea of ecosophy from concept to practice including “...new micropolitical and microsocial practices, new solidarities, a new gentleness, together with a new aesthetic and new analytic practices...”²⁰ The aim of these mechanisms is to produce a collective and individual subjectivity, one which can transcend the compartmentalization of the individual within social and political processes. Projects such as the *Bruder Klaus Chapel* (2007), designed by Peter Zumthor, and *Ice Watch* (2014), an installation by Olafur Eliasson, form an immediate encounter between the body and space. As with the intentions of ecosophy, the subtle spatial

16. Ibid, 446.

17. Ibid.

18. Felix Guattari, *The Three Ecologies* (London: Continuum, 2008), 28.

19. Ibid, 41.

20. Ibid, 51.



Figure 07. Bruder Klaus Chapel, 2007, Peter Zumthor.



Figure 08. Ice Watch, 2014, Olafur Eliasson.

qualities of these projects can lead to a perceptual understanding, traversing between the intimate domain of the body and the social or environmental context of the space.

Ultimately, effective adaptation does not stem from applied knowledge alone; human perception of the environment is also critical and is fostered through intimate connections. Situated between the conceptual and the perceptual, environmental intimacy adopts a method of creation that gathers sensations from encounters with the landscape, producing new architectural form through the process of affective deterritorialization. Environmental intimacy creates a fluid relationship between the body and its surroundings, functioning as a form of intuitive knowledge working through the flesh of the body as opposed to the rational operations of the mind. The actions of *opening*, *breaking apart* and *entering* are deployed to extend environmental intimacy as a mediator across each phase of translation, from the initial encounters to the navigation of formed architectural space.

Opening – Movement in the Environment

Photographs of shattered water are the *opening* of the landscape, as the spatial experience of the waterfalls is captured and reanimated by the movement of the body. With this mode of documentation, the engagement of the individual is integral to the animic²¹ perception of the waterfalls. As Tim Ingold writes:

...to perceive the environment is not to look back on the things to be found in it, or to discern their congealed shapes and layouts, but to join with them in the material flows and movements contributing to their – and our – ongoing formation.²³

With this, Ingold asserts that both the landscape and the body are in a constant state of growth, and as the two interact they become entwined in what he describes as the *meshwork*. As the body moves through, around and

21. Tim Ingold, *Being Alive: Essays on Movement Knowledge and Description* (London; New York: Routledge, 2011), 68.
22. Animacy is a mode of perception, which as defined by Ingold views the physical world as an “...entire field of relations within which beings of all kinds, more or less person-like or thing-like, continually and reciprocally bring one another into existence.”
23. Ibid, 88.



Figure 09. Spatial Reconstruction of Tew Falls.

with the waterfalls, a meshwork of experience is formed.

Ingold draws a clear distinction between a network and the meshwork. Whereas the network is a “relational perspective” based on connections between points, in which objects remain separate from the strands that connect them, in the meshwork the being, or body, is a line which is knotted and woven within an infinite tangle of other lines. “We do not live inside our bodies, but – in breathing and eating – continually and alternately gather the world into ourselves and release ourselves into the world.”²⁴ What becomes essential to the concept of the meshwork is that it defies physical boundaries. When moving through a landscape, the body is depicted as a line of movement and growth in which the interior and exterior of the body are indiscernible, and with this Ingold offers an alternative conception of the body.²⁵ Immediately, a new spatial understanding of the body and space is imagined, and can be actively sought based on the “primacy of movement,”²⁶ where movement in the world is not a matter of being but a matter of constantly becoming. As the meshwork of the waterfalls is continually in-formation, the influence of these encounters with shattered water can extend into the craft of designed objects and spaces.

The photographic reconstruction of Tew Falls visually demonstrates this concept of the meshwork. The still, picturesque image is no longer the primary means of representing Tew Falls, as the repetition of frames simultaneously reveals the path of the body and the movement of water. While the physical surroundings may be obscured, a dynamism is undeniably present, which shifts the focus of these images to the flow of materials and forces. The recognition of these forces results in astonishment towards the landscape of Tew Falls.²⁷ This astonishment becomes the development of a sensitive intuition, which guides action and perception in the craft and experience of architectural space.

24. Tim Ingold, *The Life of Lines* (Milton Park: New York: Routledge, 2015), 42.

25. Ingold, *Being Alive*, 69.

26. Ibid.

27. Ibid, 64. Ingold uses the term astonishment to describe a reaction towards the phenomenological qualities of the natural environment.

Breaking Apart – Movement in Craftsmanship

As with movement through the natural environment, craftsmanship requires that intelligence and intuition act as one, allowing for the perception of an experience to extend past that which can only be read from the surface.

And after you move with the object, you must *adjust* your own speed; you must be careful and attentive and time your actions, because along with synchronizing, you must act upon your sympathies... This is exactly what the method of intuition is: an extension of sympathy through a floating and modulating of attention, a specific effort of gradation.²⁸

In the *Sympathy of Things: Ruskin and the Ecology of Design*, Lars Spuybroek uses the term sympathy to define an immediacy of experience resulting from an entwined relationship between humans and things. However, Spuybroek specifically frames sympathy in the way the designed environment relates back to the body by radiating feelings, making sympathy integral to designed aesthetics.

In a predominately fabricated world, the body is constantly surrounded by designed things, and these things become integrated into the fabric of our experience. Consequently, sympathetic design becomes integral to creating a rhythmic world of thinking-feeling, where “[a]t a certain point, we will cease being able to distinguish between animate and inanimate, moving and still, form and action, and be left merely with things and feelings.”²⁹ Spuybroek’s notion of sympathy is closely related to the animic perception of the environment, as it looks for an interior understanding of the animate and inanimate things that surround the body. In doing so, sympathy is reliant on an intuitive understanding of an object or space opposed to a rational, or intellectual, understanding.³⁰ If intelligence comes from isolating an object in search of an analytical understanding, then intuition is an understanding comprised of a series

- 28. Lars Spuybroek, *Sympathy of Things: Ruskin and the Ecology of Design* (Rotterdam: V2 Publishing: NAI Publishing, 2011), 166.
- 29. Ibid, 148.
- 30. Ibid, 162.

of relational operations allowing insight to the interior domain of a thing, regardless if it is living or non-living.³¹ Therefore intuition and sympathy are intrinsically linked: the only distinction may be that “...sympathy [is] at the head of the process and intuition at the tail.”³² Ultimately, sympathy is the important first step towards intuitive craftsmanship.

Casting is a process that cultivates an intuitive mode of craft, where the means of digital modelling and fabrication used to create the molds do not act as a prescriptive tool, allowing for the skill of the craftswoman to enter and guide the process. Spuybroek identifies technology as a form of mediation that can be prescriptive, though says that “...questions raised by art and artisanship should be appropriated by technology – not a technology of purposiveness, instrumentality and mediation, however, but one of variation and flourishing.”³³ With the fluid implementation of technological translation, the form of the cast surface evolves with every step of the process, continually shifting even past the point of completion. Traces of photographic manipulation, and the machine logic of the CNC router, are embedded into the lofted surface of the resulting cast. The casts become expressive not just of the shattering of water but also the forces that created it. “To feel sympathy we need to see form and being-formed simultaneously; we need to see-feel form and force at the same time.”³⁴ In *breaking apart*, the encounters with shattered water are disassembled by looking to the interior of the sensation, and then reconstituting it through the intuitive use of digital fabrication and casting.

Entering – Movement in Designed Space

After the role of the craftswoman has come to an end, affect, sensation, and the medium of space are the means by which the observer connects to the interior of the object or space. Through the act of *entering*, environmental intimacy is continually established between the observer and the object by way of its affective potential. Affect, as defined by Gilles Deleuze, is the act of feeling, relating specifically to a feeling of intensity that does not have a prescribed meaning but instead an associated experience,

31. Ibid, 161.

32. Ibid, 167.

33. Ibid, 210.

34. Ibid, 184.



Figure 10. Placing form-work and pouring plaster.



Figure 11. Releasing the finished cast.

one which is unchanging.³⁵ As Deleuze writes, “What is preserved – the thing or the work of art – is a bloc of sensation, that is to say, a compound of percepts and affects.”³⁶ Not connected to the individual, or the self-view, affect becomes universal – a constant variable between the percept, and the body. The objects and spaces of environmental intimacy can be described using these terms, percepts that produce the affect and sensation of shattered water.

As with affect, sensation engages the integral unity of the body and space, reasserting the dissolution of the prioritized self-view. Deleuze reveals it is the interaction of the body within the space that enables sensation:

As a spectator, I experience the sensation only by entering the painting [the *building*], by reaching the unity of the sensing [the *body*] and the sensed [the *space*].³⁷

Sensation exists when the body of flesh and nerves, and the space of affect and sensation, converge. However, this relation between space and flesh is one of revealing. As Deleuze asserts, “Flesh is only the developer which disappears in what it develops: the compound of sensation.”³⁸ The flesh is the medium by which human and non-human forces are brought together to create the composite sensation, and by consequence the dissolution of the self. When entering both the waterfalls and the objects, it is through the flesh that sensation is registered.

In the images *Entering 01 & 02*, exercises in casting are reimagined as larger spatial constructs. The casts, which are the subject of the images, are physically separated from the initial encounters with the shattering of water, as the waterfalls are deterritorialized from their geographical context through the acts of *opening* and *breaking apart*. The rhythm of shattered water is then reterritorialized into the cast material form, which can subsequently be used in the creation of an affective spatial experience. This process of deterritorialization is what Deleuze calls the refrain. In *A Thousand Plateaus*:

35. Deleuze, *What is Philosophy?* (New York: Columbia University Press, 2003), 164.

36. *Ibid*, 164.

37. Gilles Deleuze, *Francis Bacon: The Logic of Sensation* (Minneapolis: University of Minnesota Press, 2003), 31.

38. Deleuze, *What is Philosophy?*, 183.



Figure 12. Entering 01



Figure 13. Entering 02

Capitalism & Schizophrenia, the refrain is described as “...rhythm and melody that have been territorialized because they have become expressive – and have become expressive because they are territorializing.”³⁹ Dedicated to the observation of minute environmental phenomena, the Teshima Art Museum (2010) by Ryue Nishizawa and Notion Motion (2005) by Olafur Eliasson, are examples of such spaces that effectively capture the refrain of the environment. The first is mediated by framed openings and subtle architectural variation, which visualize shifts in atmospheric conditions, the second through technological intervention, where a vibratory wave is expanded into an immersive architectural experience. Similarly, the refrain of the waterfalls is captured through sensation and materiality, relating the observer back to the initial encounters through the affect of shattered of water. As Elizabeth Grosz writes in *Chaos, Territory, Art: Deleuze and the Framing of the Earth*:

Art is the most direct intensification of the resonance, and dissonance, between bodies and the cosmos, between one milieu or rhythm and another. It is that which impacts the body most directly, that which intensifies and affects most viscerally.⁴⁰

The casts render the rhythm of water through the movement of light, spatializing the invisible and cosmic forces of shattered water into an experience which can be revisited, and continually entered, establishing an intimate connection between the observer and the object.

39. Gilles Deleuze and Felix Guattari, “Of the Refrain” in *A Thousand Plateaus: Capitalism and Schizophrenia* (Minneapolis: University of Minnesota Press, 1987), 317.
40. Elizabeth Grosz, “Chaos, Cosmos, Territory, Architecture” in *Chaos, Territory, Art: Deleuze and the Framing of the Earth* (New York, Columbia University Press, 2008), 20.



Figure 14. Teshima Art Museum, 2010, Ryue Nishizawa.



Figure 15. Notion Motion, 2005-2006, Olafur Eliasson.

Environmental intimacy is established through the intertwining of territories, capturing the refrain of the documented waterfalls. In the following chapters, the disparate events of the five waterfalls are woven together through the compounding of sensations into a new material form. Grosz states:

...the constitution of territory is the fabrication of the space in which sensations may emerge, from which a rhythm, a tone, coloring, weight, texture may be extracted and moved elsewhere, may function for its own sake, may resonate for the sake of intensity alone.⁴¹

As the fabrication of space, environmental intimacy imagines places of cultural and social gathering which act as micropolitical and microsocial instances; instances that utilize the aesthetic composition of shattered of water to express larger concepts concerning the relationship between the body and its natural, social or political environment. Environmental intimacy translates movement through the natural environment into the craft and experience of built space. Consequently, the objects and spaces of environmental intimacy result in a heightened sensitivity and ecological attunement towards any, and all, environments. Environmental intimacy is the *opening towards*, the *breaking apart*, and the *entering* into the movement of the material and climatic processes that flow between the natural and built environment.

41. Grosz, *Chaos, Cosmos, Territory, Architecture*, 12.

51.33° N, 115.97° W

11.08.16

Unknown, Castle Mountain, Alberta.

Height: n/a, Width: n/a

Type: Tiered

Plate 13. Approach (opposite)





Plate 14. Spill



Plate 15. Grasp



Plate 16. Flood



Plate 17. Surround

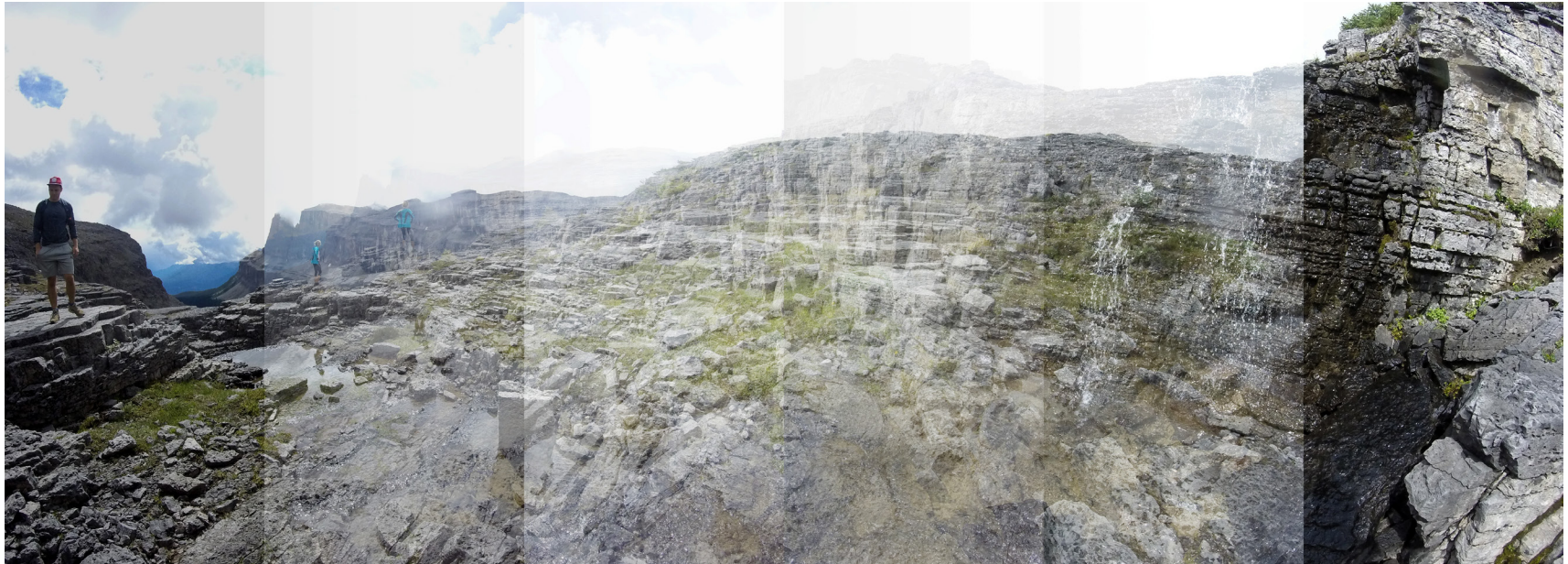


Plate 18. Expansion

The clouds move silently through the trees, seeping across the surface of every pine needle, wrapping the forest floor in their moisture. Ascending the strata of mountain atmospheres, the body is in a constant state of flux, adapting to the fluctuations of air pressure, humidity and temperature. Emerging from layers of low-lying clouds, the ridge comes into focus. That is the destination, and so the body begins to climb.

High above the pair of rockbound lakes the body drifts through foreign territory. A prehistoric landscape that has seemingly escaped the passage of time. The volcanic rock beneath the feet, pocketed with air, resembles the ancient coral that once flourished in the extensive ocean, which millennia ago covered the very space the body now occupies. Beneath the feet, water slips out from below a boulder. A subtle point of origin, and yet the water spreads, moving with agility across the fragmented landscape. The body follows the path of the water towards the distant horizon. Over the gust of wind, the sound of moving water rises.

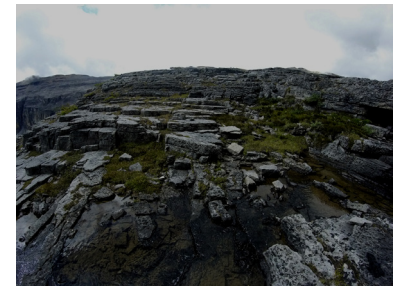




Plate 19. Narrowing

The body approaches a deep cut into the ridge topography, a thin layer of water cascades downward – water so clear it forms a reflective surface blanketing the vertical face of the dark volcanic rock, accentuating its texture. Slowly, across the expanse of time, the water carved these deep incisions into the flesh of the rock. Lowering the body into the crevice, the crumbling structure of the rock forms a series of interconnected plateaus. Easily navigable, they merge at the point of the precipice. Just like the water, the body wraps itself to the geometry of the rock as it navigates the series of plateaus. As the crevice narrows, the body is drawn in, following the rhythmic flow of the water. At the very edge of the precipice, water spills gently downwards; the body moves into the frame. With hands pressed into the rock, arms extend upwards on either side with water flowing smoothly beneath the feet, the body is consumed within the landscape. The body feels lost in time, as though time has collapsed inward onto itself; the only sign of its passage is the flow of the water itself.



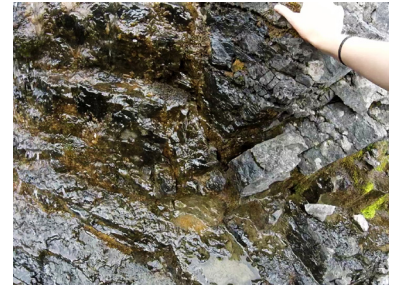


Plate 20. Snapshots 1/2

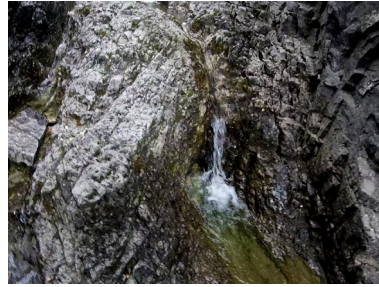


Plate 21. Snapshots 2/2



Capturing Sensation

Observing the environment through the lens of the body.

Perception, feelings, thoughts, knowing, action – all are immediately present in experience, available to do their bit, entangled from the start, not to be activated in a specific order but lived simultaneously.⁴²

Between the months of April to August I sifted through thousands of photographs. Sets of these photographs constitute scenes of exploration. With photos taken in rapid succession, a image is captured every half of second – the minimum perceivable interval of time⁴³ – these scenes shift in accordance to the body's movement. These images reveal minute differences in light and shadow; in texture and form; in speed and movement. The act of curation is an important ritual, allowing time for contemplation and the opportunity to instill the documented experiences with greater depth. Each photograph can be viewed as an autonomous image, yet also exists within an extended timeline. With motion frozen, the body is arrested in time, held on the precipice of action although movement is always inferred. Gathered from these photographs is the tactile observation⁴⁴ of space, and the way in which the body and its environment interact with minimal technological intervention.

To document without mediation is an unattainable goal. The following images, however, hope to minimize as much as possible the mediation involved in a physical encounter with the natural environment, in order to preserve sensation. These images thus stand apart from other

Figure 16. Submerge (opposite)

42. Lars Spuybroek, *Sympathy of Things*, 149.
43. Brian Massumi, *Parables for the Virtual Movement, Affect, Sensation* (Durham NC, Duke University Press, 2002), 28.
44. Tactile observation is a term which means to gain an understanding of space not only by visual means, but also through the physical experience of matter. Gaston Bachelard, *Water and Dreams*, 107.

forms of technological mediation, which often result in the detached perception of a distant observer. Aerial photography, for example, might accurately demonstrate the scarring and deterioration of natural landforms, and the consequences of human activities, however, the downward gaze nevertheless distorts a true understanding of these harmful processes due to an ambiguity of scale. For artists using aerial imagery, such as Edward Burtynsky, this absence of scale is essential to the effect of the image:

...the compression of space through light and optics, also yields an ambiguity of scale. You don't know how large anything is until you see a detail whose size you can recognize. Then you have to reconstruct reality to comprehend how big the place really is.⁴⁵

To Burtynsky, the photograph becomes a code to be deciphered through a series of rational operations. By revealing only a “fact,” it is left to the observer to reconcile the neutralized information presented to them.⁴⁶ While destructive practices are often the subject of these photographs, their associated sensations are lost along with the integral unit of the body. Though aesthetically beautiful, the images are thus abstract figurations⁴⁷: a game of composition and color. Highly aestheticized, the nature of these image can twist the horrific towards the sublime with a purely visual lens. By comparison, as an attempt to reinject the body back into the perception of the landscape, the following images use the scale of the human body to address the notion of environmental intimacy. The documented experiences investigate how an intimate understanding of a place is formed through the movement of a sensing body.

45. Lori Pauli, *Manufactured landscapes : the photographs of Edward Burtynsky* (Ottawa ON: National Gallery of Canada in association with Yale University Press, 2003) 52.

46. Ibid, 40.

47. Figuration is representative of an object while the ‘Figure’ is representative of sensation. Deleuze, *Francis Bacon*, xiii.



Figure 17. Nickel Tailings #30, 1996, Edward Burtynsky.



Figure 18. Alberta Oils Sands #10, 2007, Edward Burtynsky.

48. Lars Spuybroek, *The Architecture of Continuity*, 83.
49. Ibid, 78.
50. Body image refers to the continuity of action and perception which leads the intuitive and responsive movement of the body through a spatial situation. Ibid, 78.

With experience lived through the body, or experience as “a spatio-temporal engagement of the individual,”⁴⁸ the modes of capturing direct encounters with the wild require that the lens of the camera no longer act as a mediator between the movement of the body and its environment. By using a device as simple as a GoPro, one no longer needs to be consciously aware of the photos being taken. Instead of the coupling of the camera and the human eye to capture the unseen, the imperceptible is revealed through the Gestalt movements of the body. When spatial perception and the movement of the body unify, the experience of a space is revealed.⁴⁹ Through the attachment of the camera to the head or the chest, the body image⁵⁰ of a lived space is captured and preserved.



Figure 19. Grasp

What exactly does the body image give us that the image of the eye cannot? If anything, the body image gives us less while revealing more. The single body image does not capture the whole, but it demonstrates spatial relationships between the body and its environment. It can capture the body forming to the edges of its surroundings; the contraction of the muscles when in contact with a material surface; and the distortion of space as water coats the body. In these images, it is the smallest of details through which the intensity of intimacy is revealed, an intimacy which is gained through the body.



Figure 20. Reach

As Gaston Bachelard writes in *Water & Dreams*, “The hand also has its dreams and its hypotheses. It helps us to understand matter in its inmost being.”⁵¹ The sensation of the hand hovering just above the rock face becomes the purveyor of tactile observation. Frozen in time, just before it contacts the rock, the inferred sensation of its rough surface moves through the body. The disembodied hand allows the observer to enter the photograph; the image becomes an extension of the body. The foreign limb is adopted by the observer as if it were her own. Almost instinctively, the observer seeks to finish the grasp, with a slight tightening of the hand. When an element of the body enters these photographs, whether it is in a blur of motion, a moment of pause, or a static action, the image grabs at the body. When the body is present, scale is introduced, and foreign surroundings can be deciphered based on their relationship to the body.

51. Bachelard, *Water and Dreams*, 107.



Figure 21. Hover

The experience lived in these images and the experience preserved in these images represent *Erlebnis* and *Erfahrung* respectively. In *Architecture & Continuity*, Lars Spuybroek defines these terms as follows:

If an experience breaks away from memory, we call it an *Erlebnis*, a 'lived experience'; when it is reintegrated into memory it is called *Erfahrung*, 'life experience.' In that sense, *Erfahrung* is a deepening of *Erlebnis*, or an extension of the present in the body.⁵²

The body image captured with the use of the GoPro achieves exactly this: the transition from *Erlebnis* to *Erfahrung*. By documenting the movements of the body which are not yet instilled into memory, new perspectives of a lived experience emerge. New sensations and spatial relationships are revealed that were previously only known to the body and not to the mind.

52. Spuybroek, *Architecture of Continuity*, 78.



Figure 22. Shatter

Subtle yet striking is the depth of field used to capture the images. As an indiscriminate observer, the GoPro documents without attention to subject, background, or foreground. Similarly, “mindblindness,” as defined in *In Thought in the Act* by Erin Manning and Brian Massumi, refers to the inability to develop an awareness of what is in the mind of another human.⁵³ Commonly diagnosed in people who are autistic, mindblindness is commonly portrayed as a lack of empathy. However, Manning and Massumi understand it as an equally empathic response to all the elements of the environment. In other words, a uniquely attentive *dance of attention*, where the surrounding environment is not filtered by neurotypical responses that are human-centric:⁵⁴

A dance of attention is the holding pattern of an immersive, almost unidentifiable set of forces that modulate the event in the immediateness of its coming expression. Attention not, but with and toward, in and around. Undecomposably.⁵⁵

Human and non-human sensations and stimulants are weighed equally without a single focal point or source of distraction. In an odd but also refreshing way, the GoPro, as with mindblindness, provides this uniquely unbiased impression of its surroundings.

53. Erin Manning and Brian Massumi, *Thought in the Act: Passages in the Ecology of Experience* (Minneapolis: University of Minnesota Press, 2014), 3.

54. *Ibid.*, 4.

55. *Ibid.*, 4.



Figure 23. Descend

Paint the sensation, which is essentially rhythm... But in the simple sensation, rhythm is still dependant on the Figure, it appears as the vibration that flows through the body without organs, it is the vector of the sensation, it is what makes the sensation pass from one level to another.⁵⁶

What constitutes sensation is not a constant state of feeling, but a prolonged experience of varying intensity. This variation is what Sir Francis Bacon refers to as “orders of sensation,” but as Deleuze explains, “...there are not sensations of different orders, but different orders of one and the same sensation.”⁵⁷ This means that within a single sensation there is a rhythmic undulation of intensity that moves through the image, introducing variation. In *Plunge*, the shattering of water is depicted in both the initial violence of the plunge itself, and the subsequent calming of the water.

56. Gilles Deleuze, *Francis Bacon*, 61

57. *Ibid*, 35.

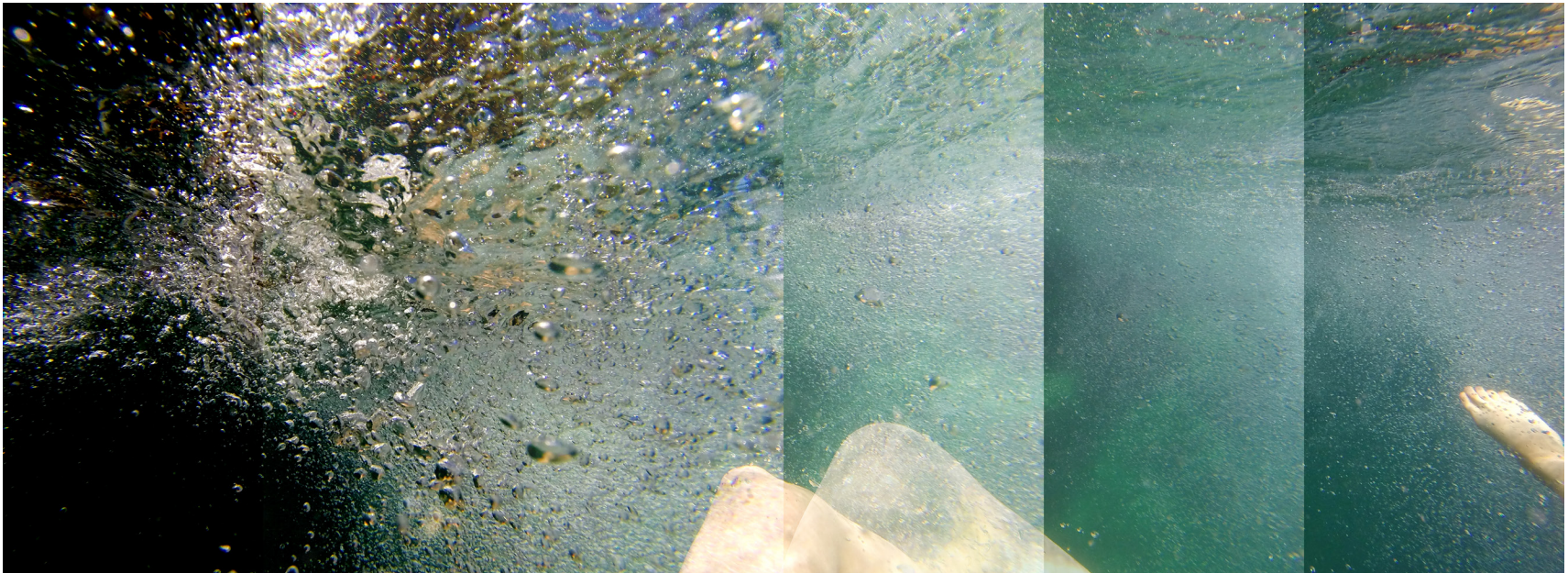


Figure 24. Plunge

58. Ibid

59. Ibid,

In a series of photographic manipulations, the dissolution of the self is achieved through the layering of images, resulting in the blurring of boundaries between the body and the space it occupies. Thought of as “shifting sequences,”⁵⁸ the figure often dissolves into its surroundings, consumed by the material forces that obscure the body’s form. When time is embedded within the image, boundaries between the body and space blur. The subject of the image is not the figure itself, but is instead the movement of the body. Similar to the paintings of Sir Francis Bacon, the Figure in these images becomes the demonstration, or the diagram, of forces; the body is forged from sensation.⁵⁹ In *Grasp*, the changing position of the hand reflects the geometry of the limestone face; it is expressive of the point at which the forces of the body and the strength of the rock meet.



Figure 25. Grasps

The levels of sensation would be like arrests or snapshots of motion, which would recombine the movement synthetically in all its continuity, speed and violence.⁶⁰

Arranged as a film strip, the snapshots of motion immediately refer to time as a crucial aspect of sensation. Set side-by-side, they are placed not only into their spatial context, but also placed sequentially in time. Changes in light, form, texture and movement flow from one image to the next, enabling continuity. Gradients and levels of intensity similarly flow throughout the series of photographs. Within this arrangement of images, an entire situation can be recomposed. The single image is no longer of primary focus; it is the movement of the body recomposed through the repetition of frames that constitutes the overall impression.

60. Ibid, 33.

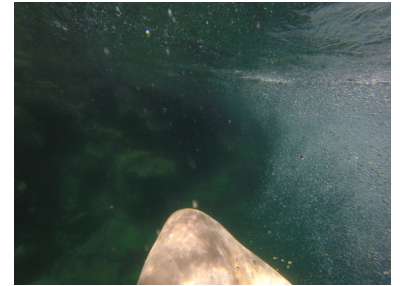
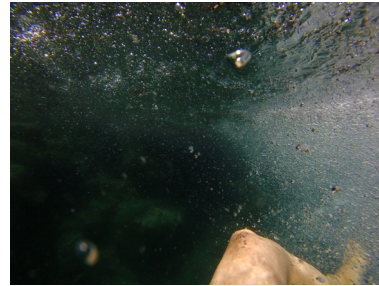
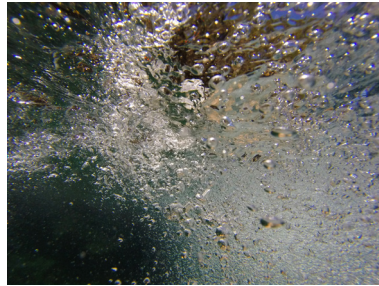
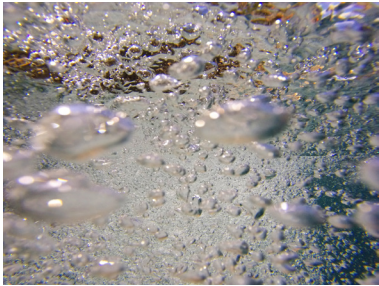


Figure 26. Shattering

Even in rejecting the view of the distant observer, a fully different form of technological mediation is embraced, and a way forward through the technological sublime is found. With the GoPro as the mediator of the observer's environment, she becomes free to re-engage. When sorting through the images moments of déjà vu emerge, enabling accessible moments of recall from which one can begin to craft, like Sir Francis Bacon who "...prefers a current photograph and a recent memory, or rather the sensation of a current photograph and that of a recent impression: this is what makes the act of painting a kind of *recall*."⁶¹ The GoPro is used not as a means that limits the distance between the body and the landscape, but one that allows for an openness. This openness precipitates the formation of intimate connections revealing the unseen that inhabits the body's surroundings.

61. Ibid, 58.

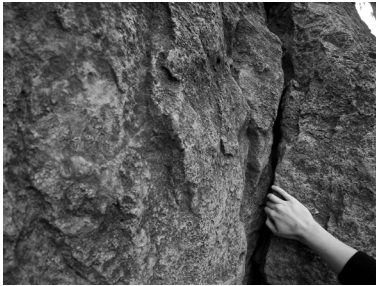


Figure 27. Grasping

51.23° N 115.56° W

09.08.16

Cascade Falls, Cascade Mountain, Alberta.

Height: 300m (984ft), Width: n/a

Type: Cascade

Plate 22. Extend (opposite)





Plate 23. Twist



Plate 24. Flow



Plate 25. Drop



Plate 26. Trace



Plate 27. Encircle

At the base of the falls, the flow of water appears as a single white line drawn continuously from the top of the mountain to the bottom, disappearing into a skewed perspective. Nearly devoid of vegetation, the cascade of water maneuvers within an expansive shale face, illuminated by the sun which rests high in the sky. Single and everlasting, at this distance the water appears to stand still as it traces the topography of the mountain. The ascent is steep for the body, and requires the use of both hands as the shale falls around the feet. Precariously the body works its way towards the first plateau. As the sun penetrates the skin, the cool stream of water is welcomed, fingers trace the creases of the rock as water flows around the hand and arm. Continuing upward, the body's footing is constantly impeded by a thin layer of scree. The flow of the water is unimpeded. Shards of rock gather in the pools of water where the falls come to a momentary pause only to descend once again.





Plate 28. Continuation

When the body stays close to the edge of the falling water it finds more stable footing, although the ascent becomes a vertical line causing the heart rate to quicken as adrenaline floods the body. The feet begin to tingle as the fear of falling creeps through the flesh. A deep breath. Trust is placed in the body, in its strength and its intuition. The body retreats, moving wide of the falls only to come around once again, this time higher. It is a dance of sorts: the body and water come in and out of contact; the body is attracted to the movement of the water, while the rock remains constant in its many forms.

The falls are framed by the surrounding mountains and their alternating layers of vegetation and geology. The immediate experience of the body extends outwards into the landscape, the vastness of this place is put into perspective as the body becomes a scale by which it can measure. First in relation to the falls, and then the falls to the other peaks and valleys through which the spine of a highway weaves. From the cascading falls, the landscape is placed within perspective.





Plate 29. Snapshots 1/2

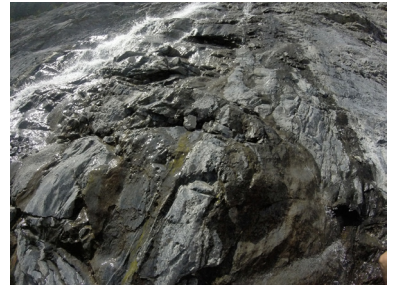


Plate 30. Snapshots 2/2



Instilling Movement

Casting semblances of shattered of water.

The process of casting is itself intimate. The combination of water and earth, as Gaston Bachelard writes, "...seems to me to be the basis of a truly intimate materialism in which shape is supplanted, effaced, dissolved."⁶² In this materialism, a system of translation and transformation takes place through a series of precise yet intuitive steps, with the ultimate aim of producing significant form.

I work with what is in front of me while allowing for the shattering of water to emerge in its own right. By bringing the image back into three dimensions, its depth is revealed by carving and casting into the physical world. Moving my hands across the surface of the mold, I work the release agent into each crevice and fold. Measuring carefully, I combine the elements of water and earth in a ratio of two parts to one. The water needs to be cold – the colder it is, the greater the delay to the exothermic process that lends me time as I try vigorously to remove air bubbles from the surface of the cast. By knocking, tapping, and shaking the mold, I subtly move it from side-to-side without disturbing the formwork that keeps the liquid plaster from escaping. It then hardens as the chemical process takes over; I wait patiently with my control over the material stripped away. As the craftswoman, I am rendered powerless. I begin to remove the formwork after an hour, revealing the distillation of shattered water into a solid form.

62. Bachelard, *Water and Dreams*, 104.

Figure 28. The shadow of water. (opposite)

As a series of non-discursive objects, the following casts are attempts to create “significant form,” or more precisely, a semblance, where the shattering of water stands as an expressive object separate from its immediate context. Free from representation, the casts seek to detach from the rest of the world. Their only connection to this world is through their emotive potential, harnessing the expressive feeling embodied within the newly created virtual object. Significant form, as outlined in *Feeling and Form* by Susanne Langer, is “...a highly articulated sensuous object, which by virtue of its dynamic structure can express the forms of vital experience which language is peculiarly unfit to convey.”⁶³ As with semblance, what is felt with significant form are the affective qualities of the object. The usual logic of rational comprehension cannot be applied here, and a function beyond the existence of these felt qualities is indeterminate.⁶⁴ The intent of the artist is found within this semblance; freeing the object from the world of actuality, to a world of feeling, is part of the task of the artist:

The function of ‘semblance’ is to give forms a new embodiment in purely qualitative, unreal instances, setting them free from their normal embodiment in real things so that they may be recognized in their own right, and freely conceived and composed in the interest of the artist’s ultimate aim-significance, or logical expression.⁶⁵

Within the architectural context, Lars Spuybroek might view semblance as a “bodily resonance,” where the relationship between the body and the object is in a constant negotiation; or a “vague determinism,” focused on perception as opposed to contemplation.⁶⁶ In both artistic and architectural creation, as opposed to re-creation, the object becomes virtual, in that its aesthetic attributes constitute its entire being, making the experience of the object somewhat intangible.⁶⁷ Returning to Spuybroek’s concept of sympathy, the symbol and idea of the object or space is fully embodied in the expressivity of the object’s form.⁶⁸ This embodiment of an idea is what Langer refers to as an object’s *import*, and results in the vague determinism or “otherness” that surrounds an affective piece of art.

63. Susanne Langer, *Feeling and Form: A theory of Art Developed from Philosophy in a New Key* (London: Routledge & Paul, 1953), 32.

64. Ibid, 32.

65. Ibid, 50.

66. Spuybroek, *The Architecture of Continuity*, 216.

67. Langer, *Feeling and Form*, 48

68. Spuybroek, *The Sympathy of Things*,



Figure 29. Reference Image



Figure 30. Image Relief

In my own work, with the intention of creating semblances, the experience brought by the casts is inherently different from the experience of the waterfalls themselves. For one, the casts are permanent and physically unchanging. Yet certain qualities of the waterfalls remain: The casts appear fragile and full of motion, and despite their differences, both are ultimately entangled in the same sense of movement and fragility. A meshwork is in-formation. As Langer suggests, however, this motion is "... not necessarily a change of place, but is change made perceivable."⁶⁹ Here, what is perceivable is the dynamism and forcefulness of shattered water, especially as light passes over the surface of the casts. When lightness and darkness are constantly shifted, the refrain of the waterfalls is captured, and time becomes embedded within the experience. The solid object never appears to be at rest. The static plaster cast is shattered by light, its face broken apart by the appearance of water. Within the frame of the casts, the forces of water and earth are made affective, just as architecture can be seen as framing the forces of the cosmos. Though the the movement of the water is made permanent in the stasis of the casts, it is made changeable and given liveliness with the addition of light, ultimately engendering a greater sense of intimacy. As Langer writes, "Nothing therefore, is as fundamental in the fabric of our feeling as the sense of permanence and change and their intimate unity."⁷⁰ An intimacy thus arises from this duality of the casts. Each time the casts are revisited, the experience is expressive of this changeability, and in their materiality the casts appear to be alive.

The surface of the first cast, *CMYK Relief A*, is created through the codification of dark and light. Using a textured image of falling water (Figure 29), numeric values are placed to corresponding key (CMYK) values of black, and from this a surface is extracted (Figure 30). This surface is covered with an undulating texture, and it is only when the surface is brought into the material that the underlying volumetric gesture is revealed. The detail of the textured surface conceals the form. Only when given tactility does it become separated from the image, and embedded within the current time and place. The subtlety of the surface demands the attention of a conscientious observer. This is unlike the subsequent iteration, *Vector*

69. Langer, *Feeling and Form*, 66.

70. *Ibid*, 66.

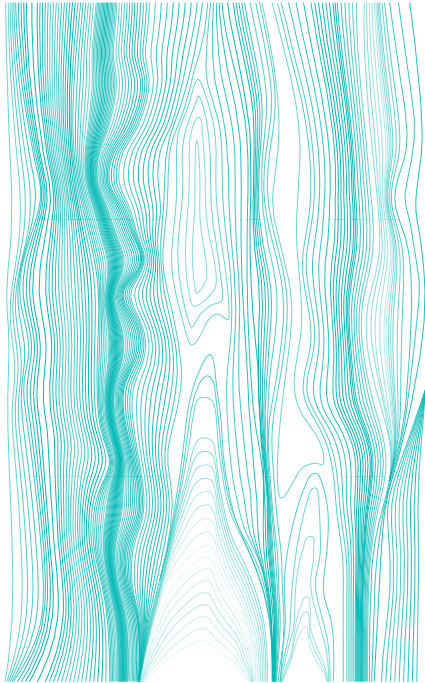


Figure 31. Vectors of Force



Figure 32. Vector Relief

Relief A, where the underlying volumetric gesture is far more accentuated. In this iteration, through the manipulation of lines and curves the clarity of the forces moving across the surface of the cast is realized. Still, this cast remains singular and representational of the previous one. The downward movement is diagrammatic of the original image, rather than a semblance of moving forces.

Interference patterns bring new life to the object. Less representational than before, the following casts, *Vector Relief B* & *Vector Relief C*, stand as self-contained events. As Langer suggests, “Something emerges from the arrangement of tones or colors, which was not there before, and this rather than the arranged material, is the symbol of sentience.”⁷¹ However, it is through the interference of the lines, opposed to tones or colours, either in a single axis (Figure 34) or across two axes (Figure 36), which removes the cast from the representation of the image and creates a more nuanced sensation. “It is the nature of sensation to envelop a constitutive difference of level, a plurality of constituting domains,” says Deleuze.⁷² In this plurality, the sensation of shattered water can be gentle, calming, forceful, and chaotic. Since water flows at different speeds, across different surfaces it moves at varying levels of intensity, shifting constantly. Through this interference of surface and lines a semblance of water emerges: as it spills over a precipice, or as it weaves across the striated earth. Consequently, the casts can relate more closely to certain encounters than others.

In relating the casts to the documented waterfalls, there are two dominant intentions of the cast objects. The first is to capture the downward movement of water as it falls offset from the face of the rock; in the verticality of the shadows, the gravitational pull of water is accentuated. The second intention is to capture the movement of water across the surface of the rock; as light moves across the surface of the casts, the movement of the shadows appears softer, coating the entire surface. Unlike the more defined vertical shadows, less articulated streams of light pass along these surfaces. With both intentions in mind, a slight curvature of the base surface results with the articulation of a horizontal shadow across

71. Ibid, 40.

72. Deleuze, *Francis Bacon*, 33.

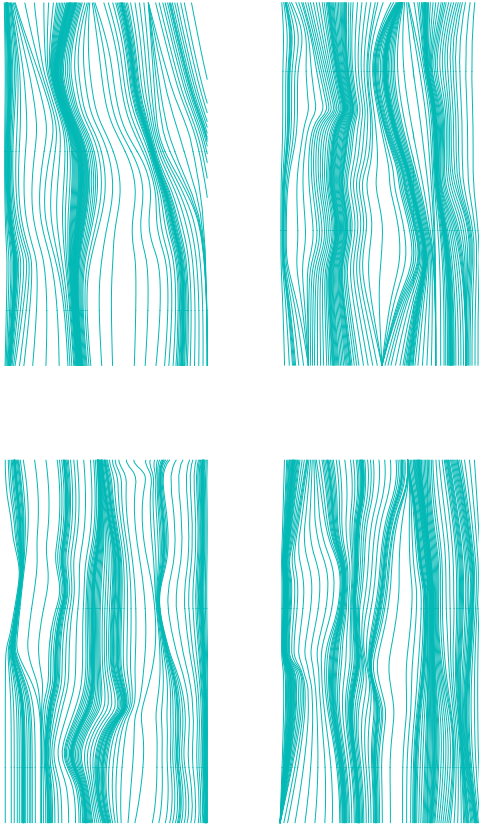


Figure 33. Individual Vectors

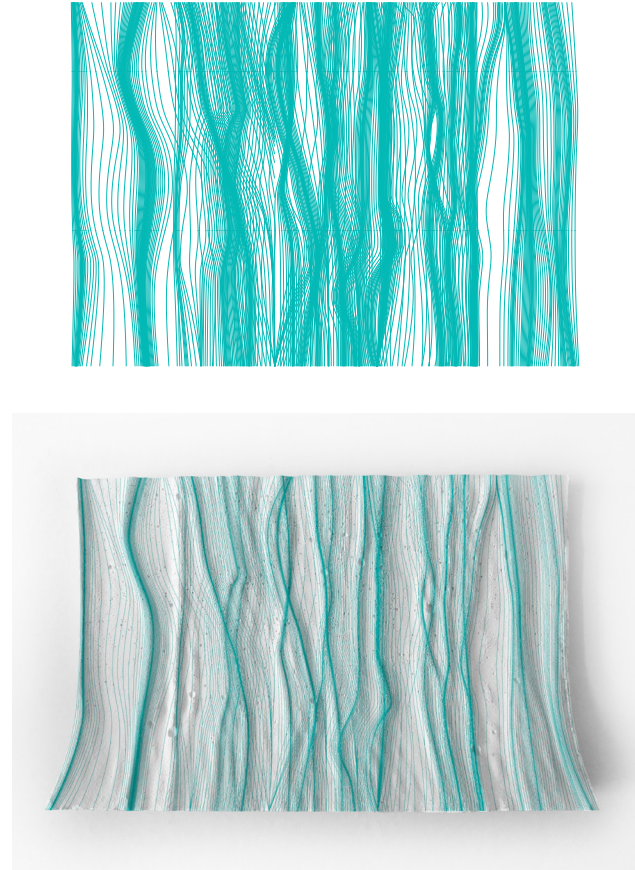


Figure 34. Interference Vectors & Relief

the face of the cast. Clearly articulated in *Vector Relief A*, and *Vector Relief B*, and less so in *Vector Relief D*, the semblance of water is created not only by the undulating surface, but also through the manipulation of the overall form, eluding to further spatial possibilities.

A majority of the casts presented here remain as textured surfaces to be observed, rather than inhabited. The action and perception of the human body are not integrally connected in the experience of the casts. While the casts do frame the movement of forces, they remain as artifacts where the spatio-temporal interaction between the surface and the body is limited to a singular planar relationship. *Volumetric Study A, B & C* were preliminary exercises to create enclosed spatial constructions. Using the arrangement and composition of two extruded surfaces, a void is created and a more explicit spatial relationship is formed. However, with the movement of light restricted to a narrow and linear opening, the resulting space lacks the vitality of the previous casts. In the following chapter, *Pulling Threads*, further explorations are made in both materiality and volume work to create spatial constructions that engage directly with the body.

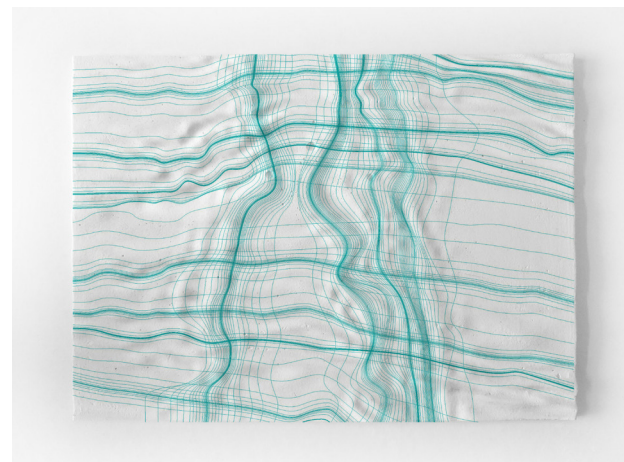
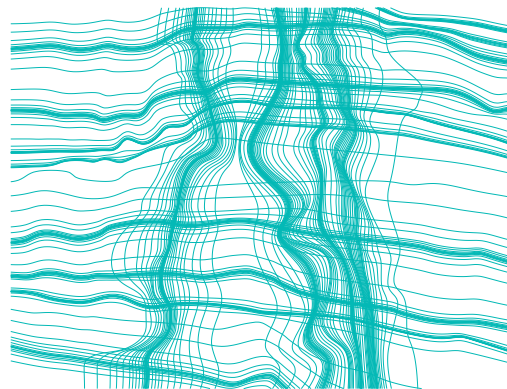
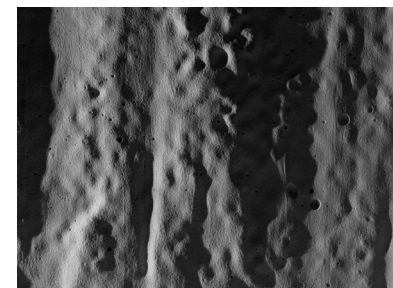
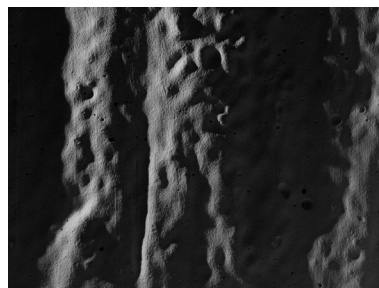
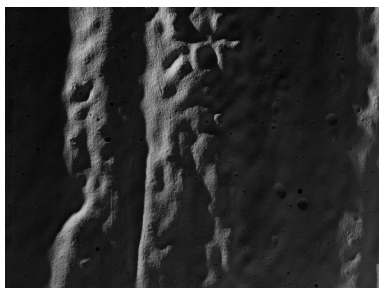
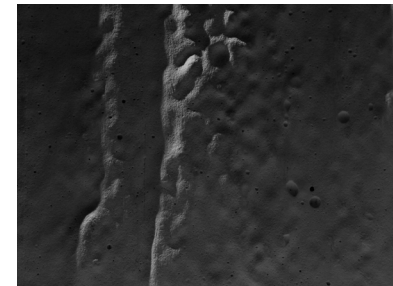
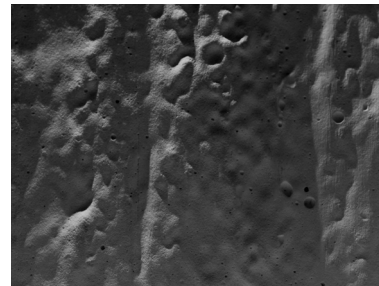
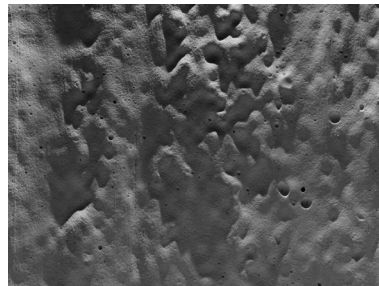
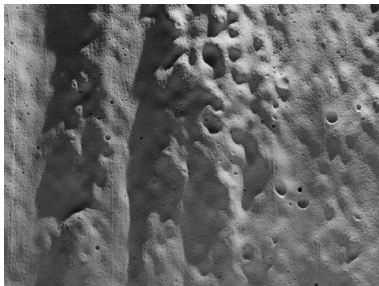
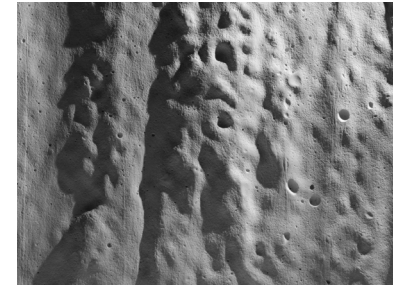
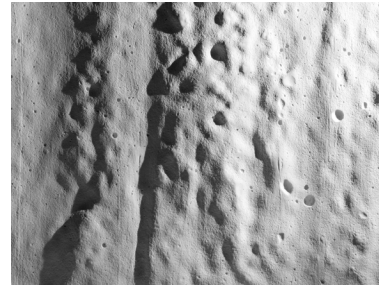


Figure 35. Reference Image & Relief

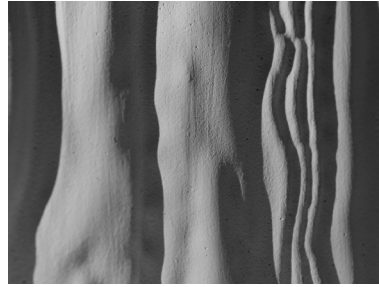
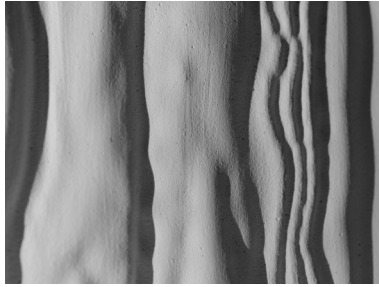
Figure 36. Axial Vectors & Relief

From the convergence of water and rock infinity disperses, sending vibrations through flesh and skin. Here, the water has a gravitational pull; soft at first, it conceals its extraordinary power through the guise of distance and the measure of space.

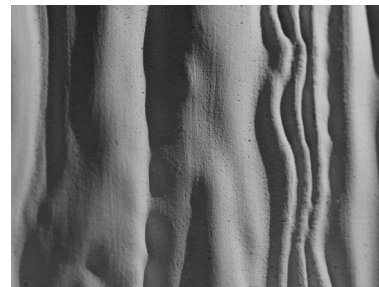
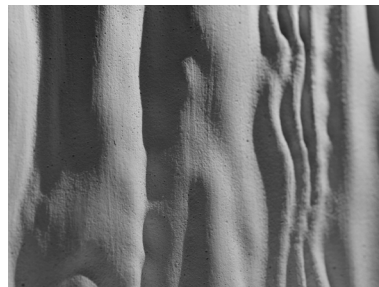
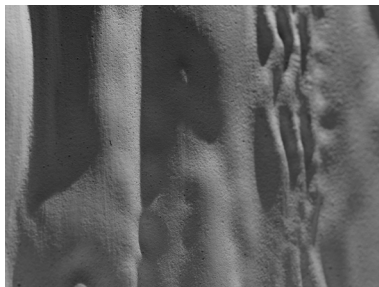




Cast 01. CMKY Relief A



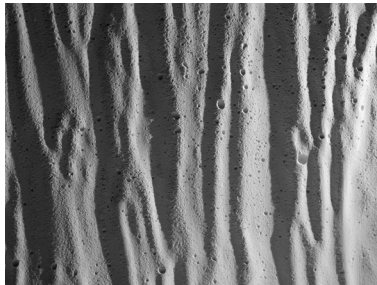
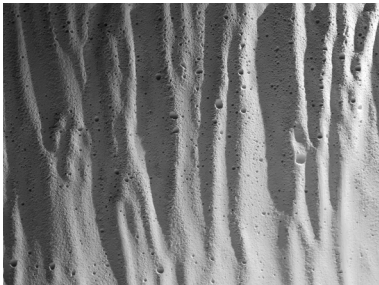
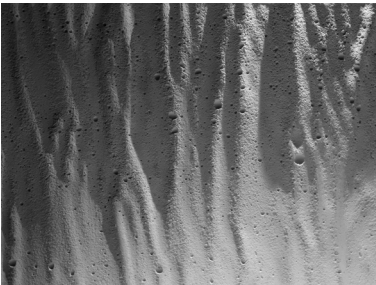
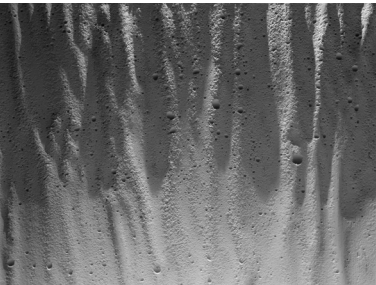
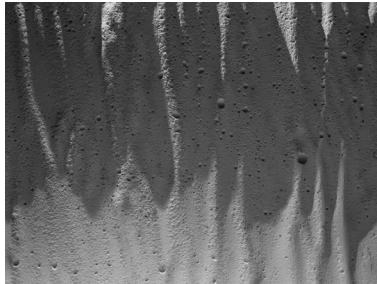
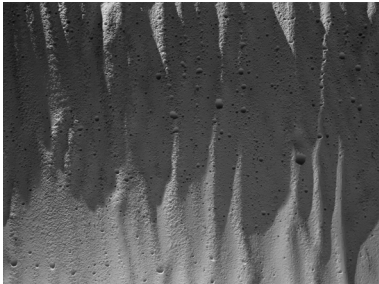
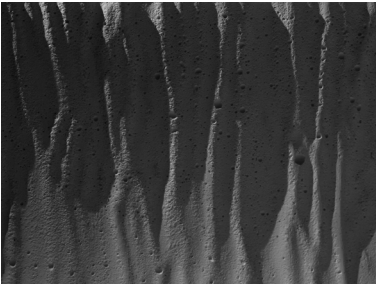
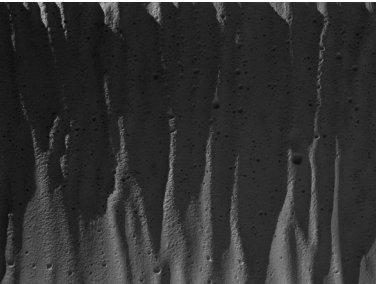
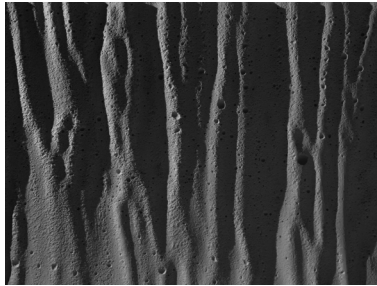
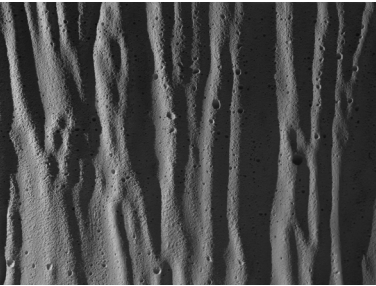
*Pressing in from one side is rock and from the other water drops like thunder.
Sound and light become one and are reflected throughout the landing. The movement of
the water and the weight of the rock polarize the void.*





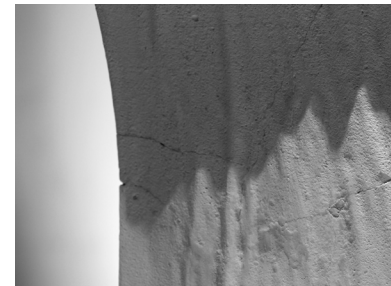
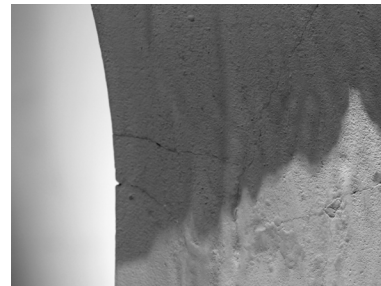
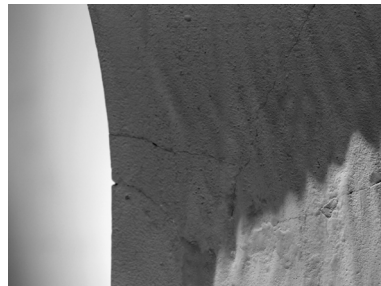
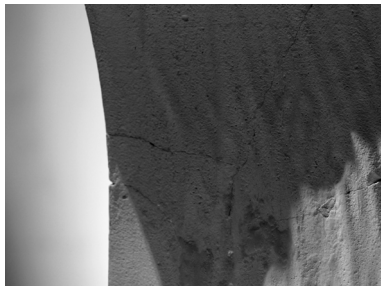
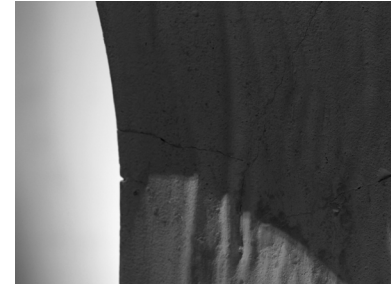
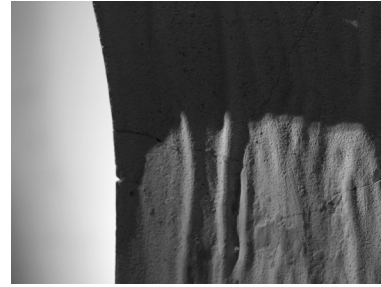
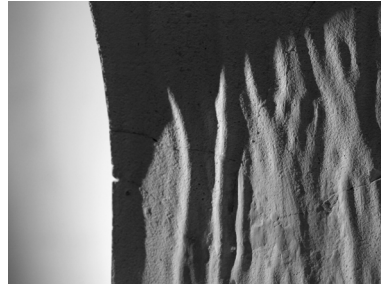
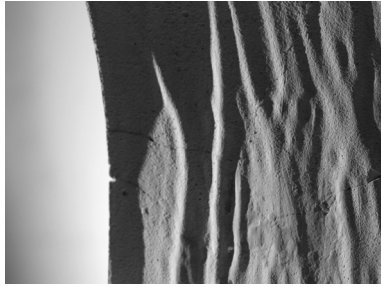
Cast 02. Vector Relief A

The rhythm of the falling water has been predetermined by the ragged edge of the limestone, which dictates the concentration of downward flow.





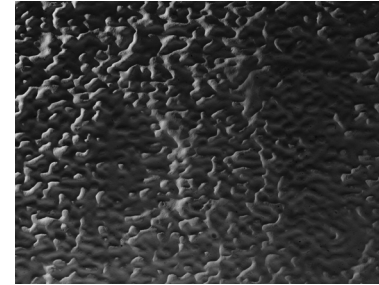
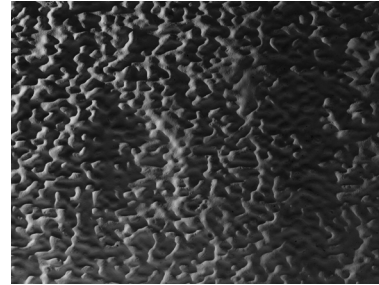
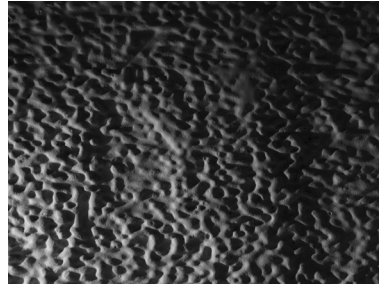
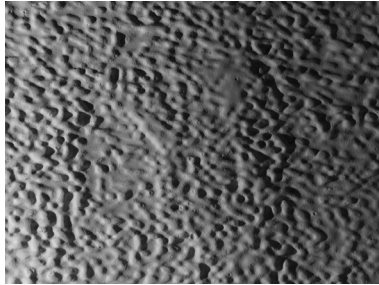
Cast 03. Vector Relief B



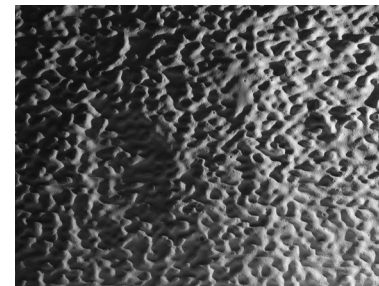
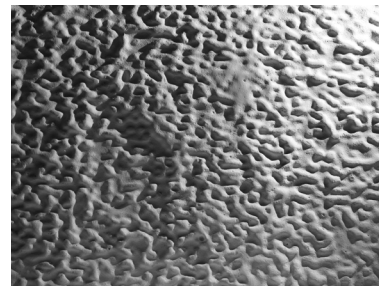
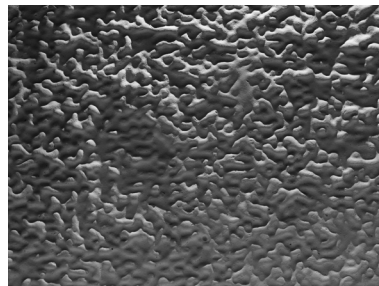
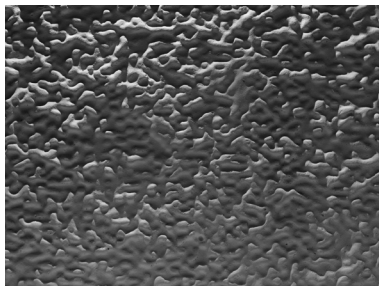
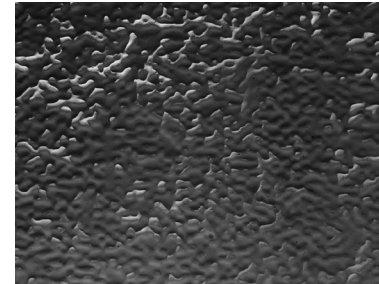
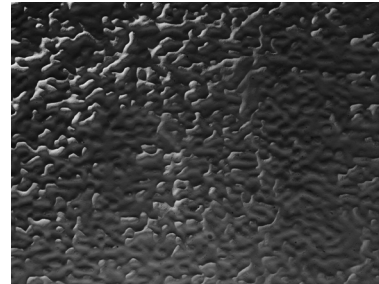
*The body is caught in the force field of the waterfall, suspended in its grasp,
caught within the reciprocal relationship of matter flowing up and down.*



Cast 04. Vector Relief C



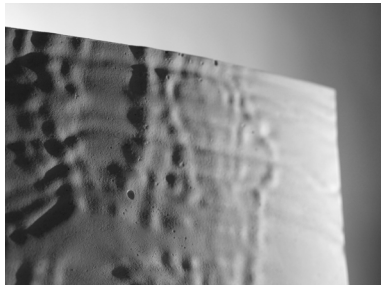
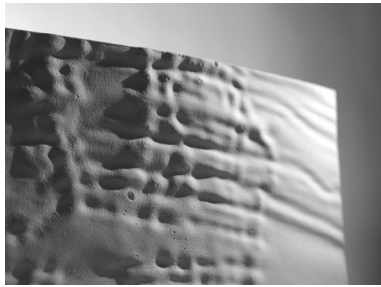
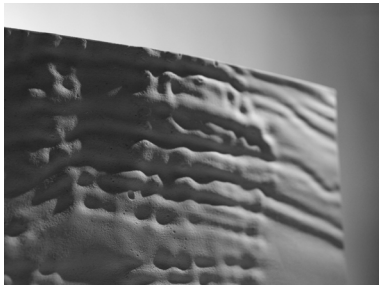
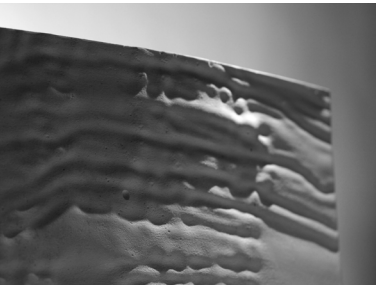
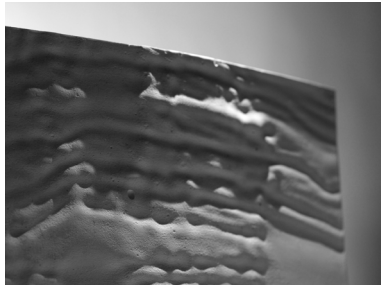
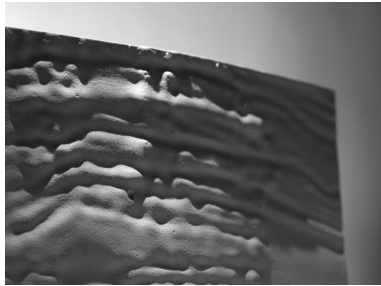
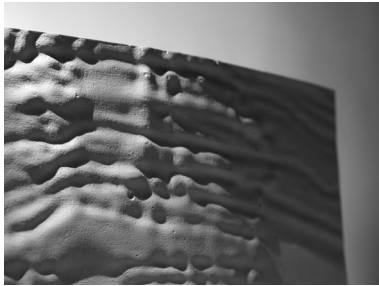
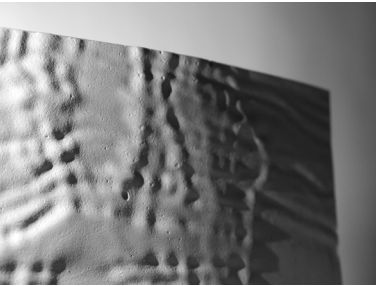
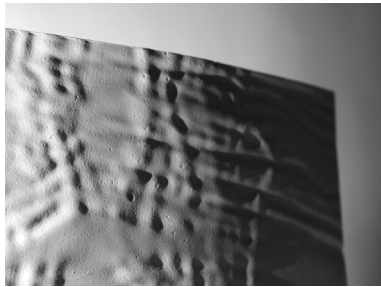
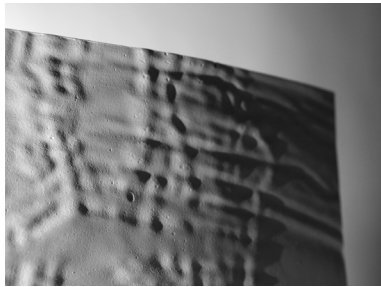
...a thin layer of water cascades downward – water so clear it forms a reflective surface blanketing the vertical face of the dark volcanic rock, accentuating its texture. Slowly, across the expanse of time, the water carved these deep incisions into the flesh of the rock.

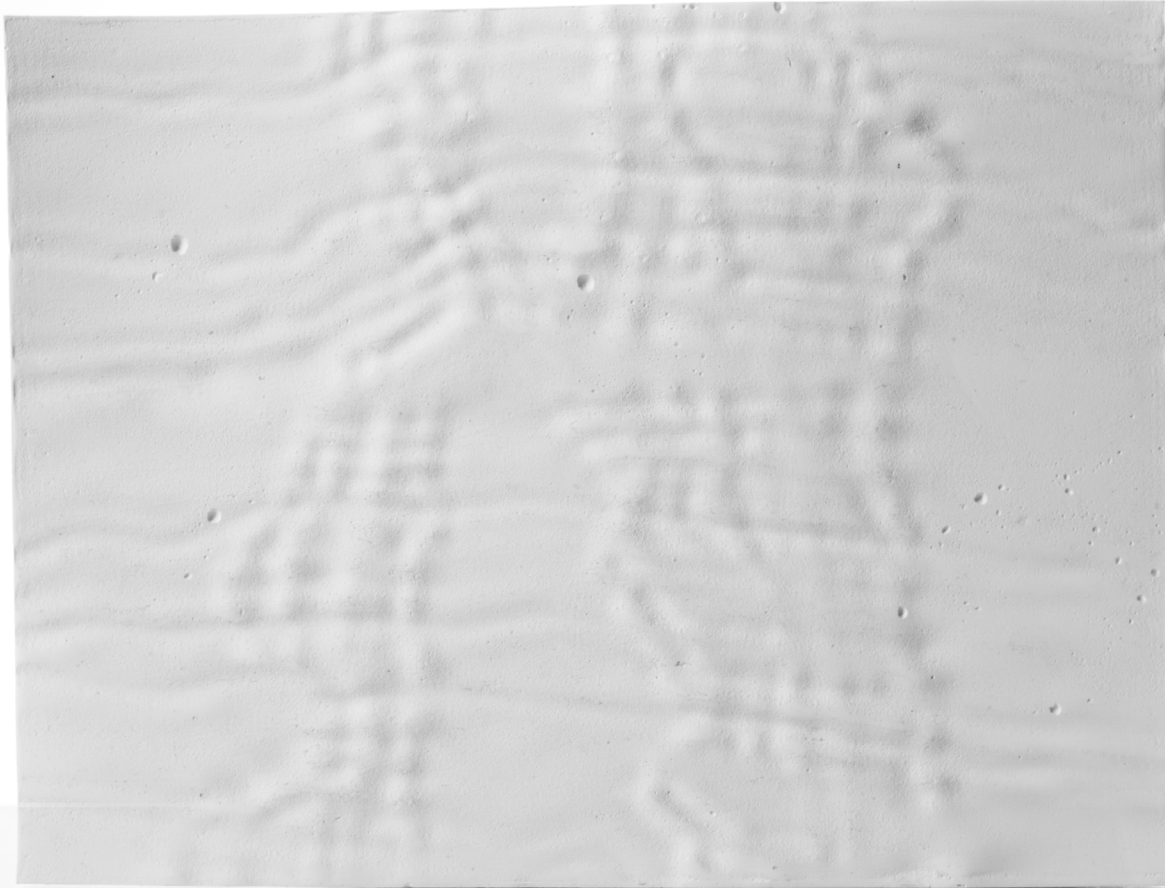




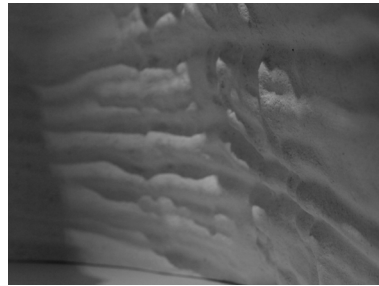
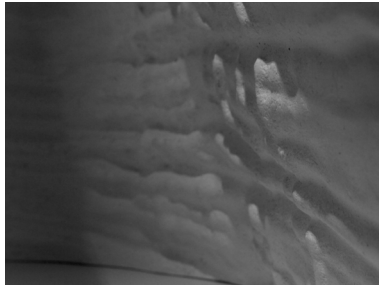
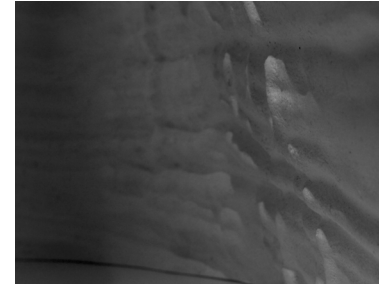
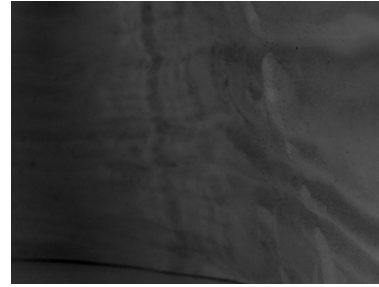
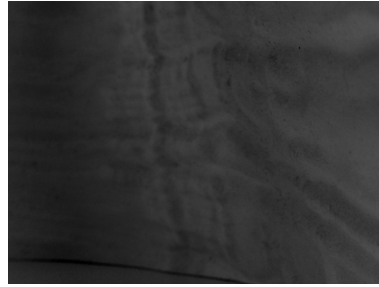
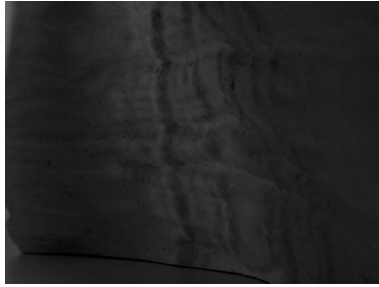
Cast 05. CMKY Relief B

Nearly devoid of vegetation, the cascade of water maneuvers within an expansive shale face, illuminated by the sun which rests high in the sky. Single and everlasting, at this distance the water appears to stand still as it traces the topography of the mountain.



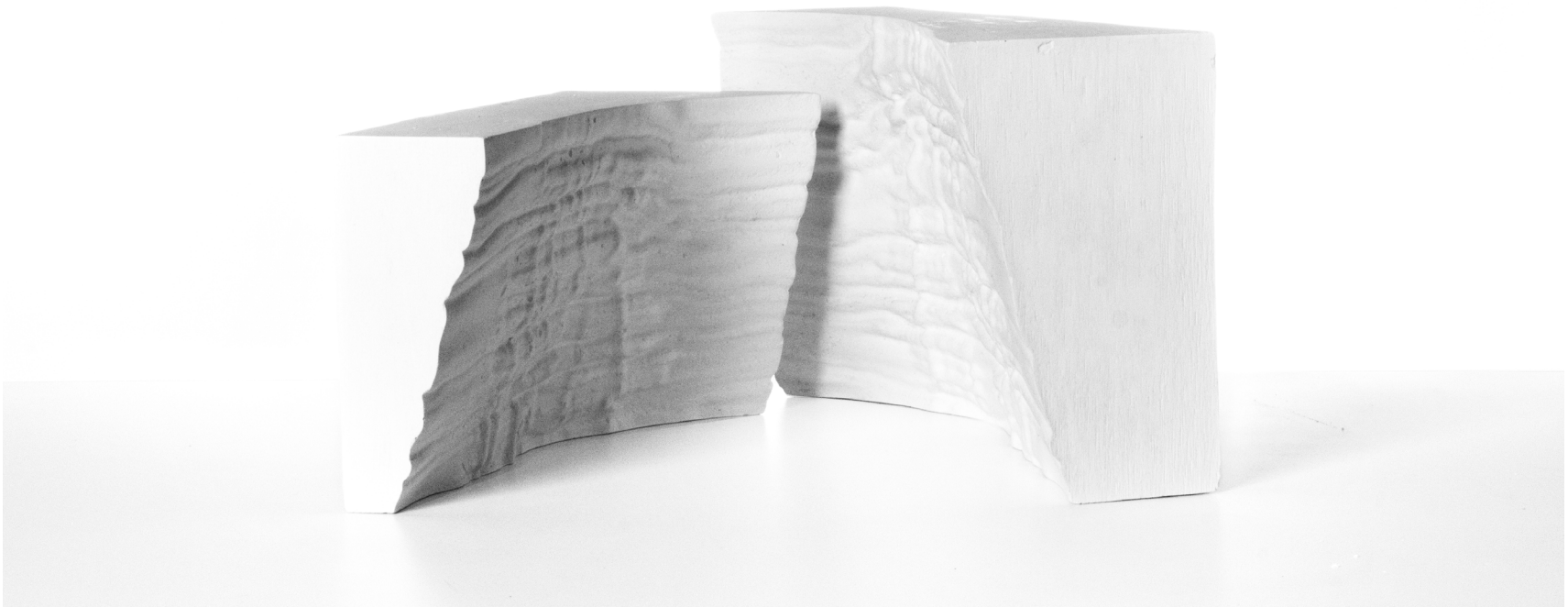


Cast 06. Vector Relief D



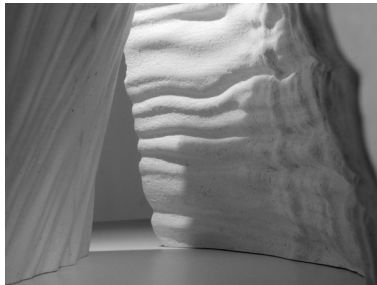
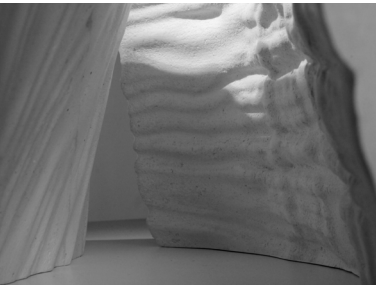
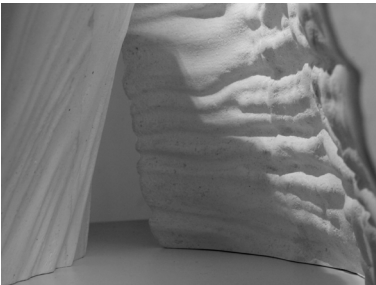
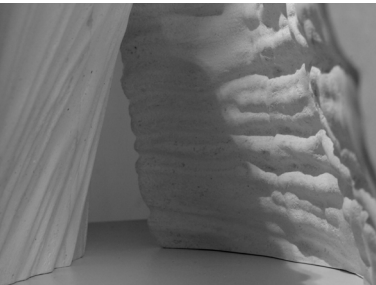
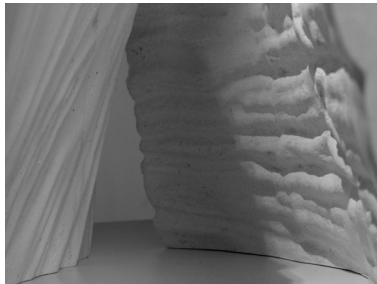
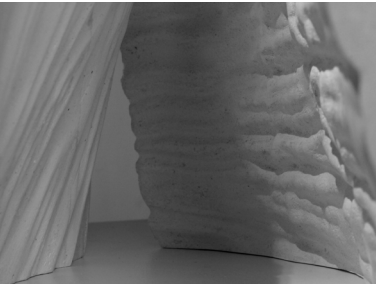
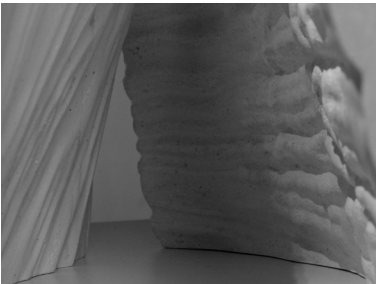
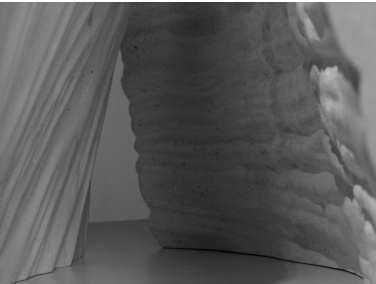
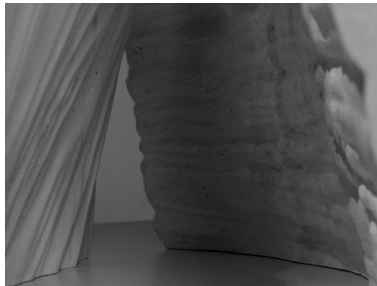
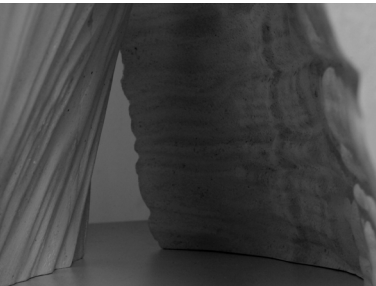
Easily navigable, they merge at the point of the precipice. Just like the water, the body wraps itself to the geometry of the rock as it navigates the series of plateaus. As the crevice narrows, the body is drawn in, following the rhythmic flow of the water.

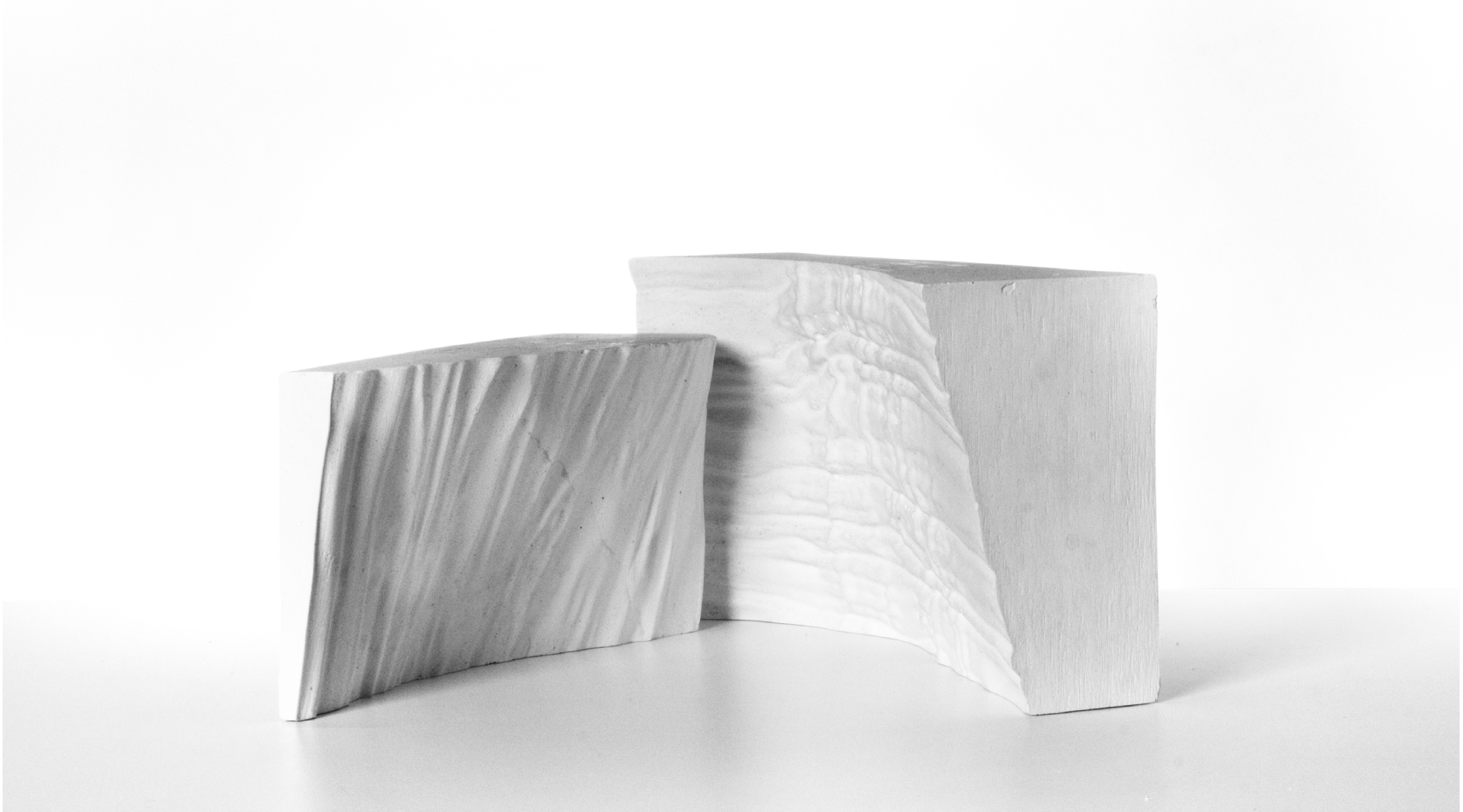




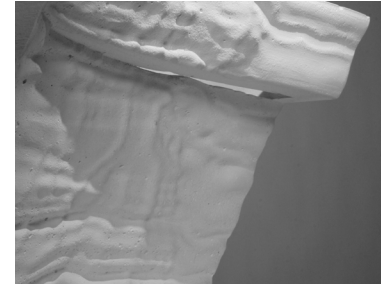
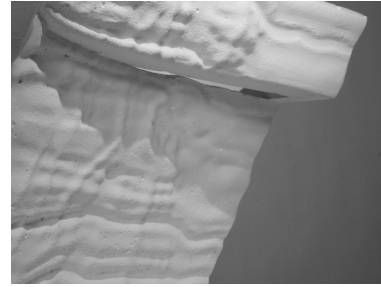
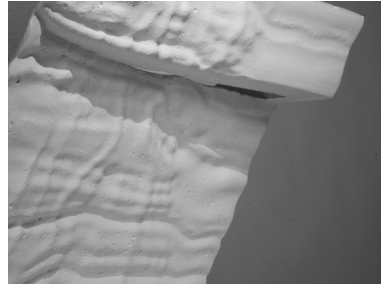
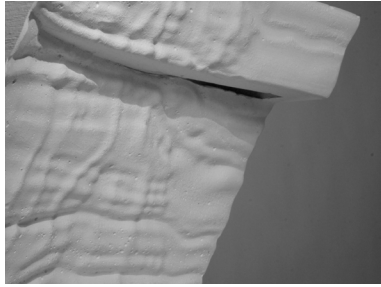
Cast 07. Volumetric Study A

Cantilevered walls of volcanic rock lean towards the body, forming a protective cave and offering momentary shelter. Fragments of broken river cut through the air, landing heavily into the lower pool.

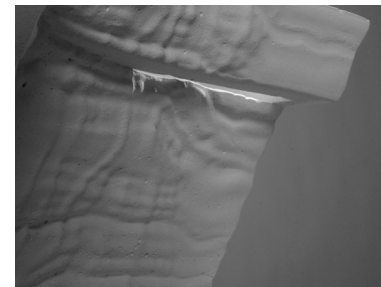
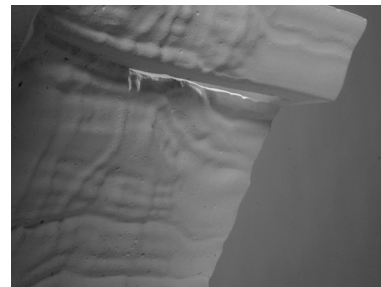
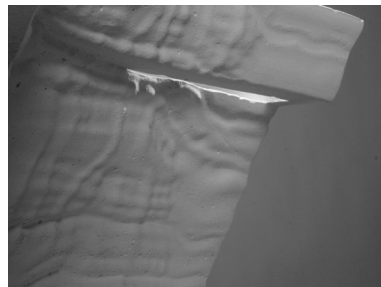
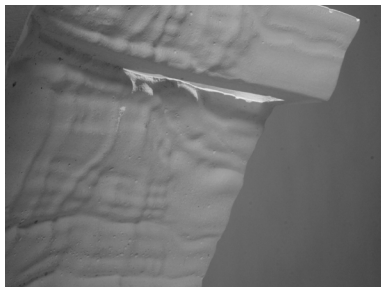
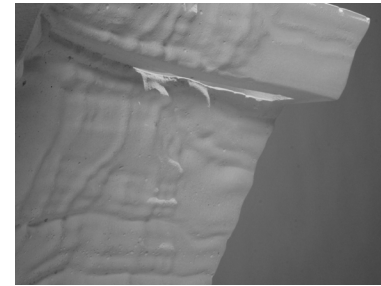
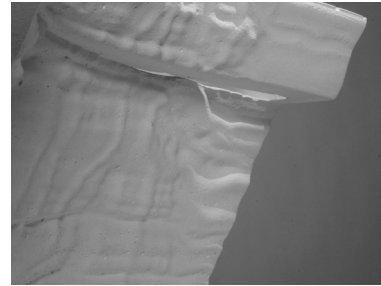


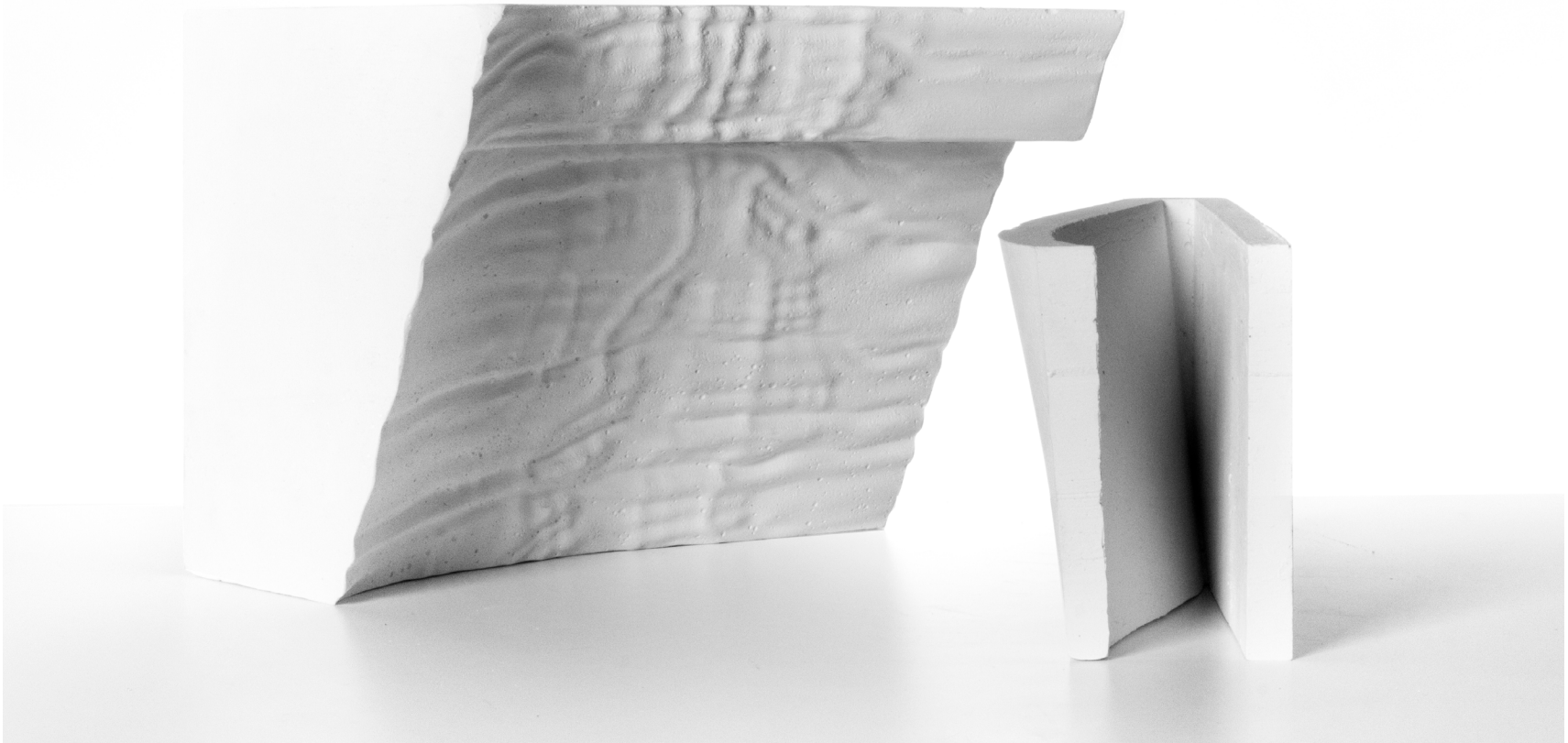


Cast 08. Volumetric Study B



Single droplets of water that have been separated from the rest catch the sunlight, momentarily becoming solid in their whiteness before they merge once again with the river.





Cast 09. Volumetric Study C

43.99° N, 80.08° W

22.06.16

*Canning Falls, Hockley Valley, Ontario.
Height: 35m (115ft), Width: 9m (30ft)
Type: Tiered*

Plate 31. Approach (opposite)





Plate 32. Reach



Plate 33. Bend



Plate 34. Encirle



Plate 35. Envelope



Plate 36. Enclose

From around a small bend in the river, the falls remain hidden from both sight and sound. With the foliage in full bloom the sound of the falls is dampened, their intensity shrouded by the abundance of green. The body pushes through the surrounding branches, which stretch themselves towards the river greedy for sunlight. The vegetation makes the movement of the body laborious, moving against the flow of the river the falls come into sight. Water falls in shattered formations off a fragile sheet of limestone. From here the flow of water is gentle and inviting, standing in contrast to its sharp and impenetrable surroundings. It pulls the body forth, chiding it to come closer. The rhythm of the falling water has been predetermined by the ragged edge of the limestone, which dictates the concentration of downward flow. Single droplets of water that have been separated from the rest catch the sunlight, momentarily becoming solid in their whiteness before they merge once again with the river.

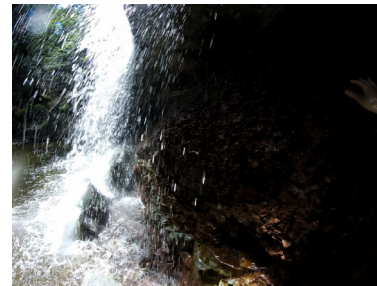




Plate 37. Polarize

As the body engages with the falls, the purity of the water is undeniable. The water is replenishing; it nourishes all that surrounds it. Just like the natural vegetation, the body reaches forward as if looking to be cleansed, seeking to be emancipated from its human constraints. Roots of trees turn green from the moisture, as the most delicate of plants sprout and make their home in the soft enclosure of the falls. The underside of the limestone shelf has been excavated by the force of falling water; when the hand comes in contact with the underside, it crumbles. The body is enveloped by the softness of its surroundings, becoming soft itself. It opens outward to the flow of the water, and into the light that shines through the liquid veil. Pressed between the water and rock, the body is coated in the clarity of flowing water.



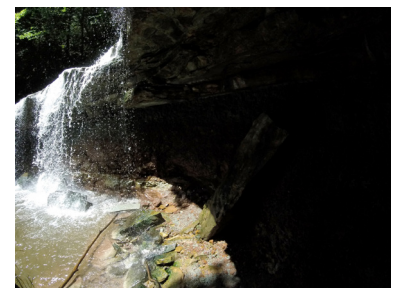
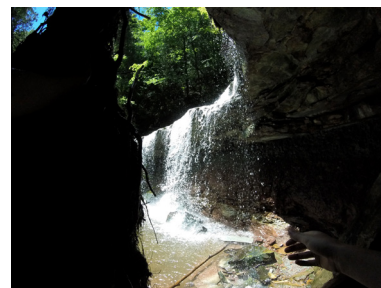
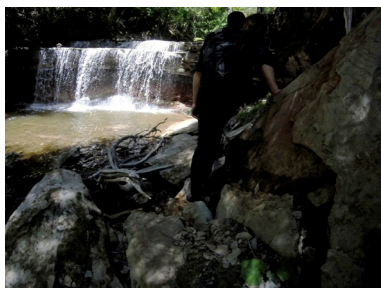
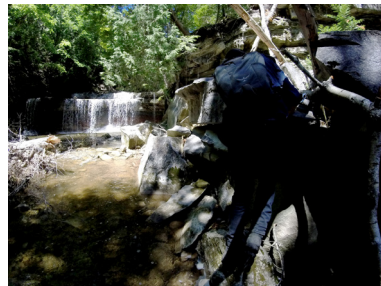
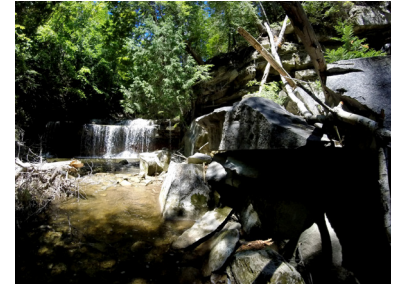


Plate 38. Snapshots 1/2

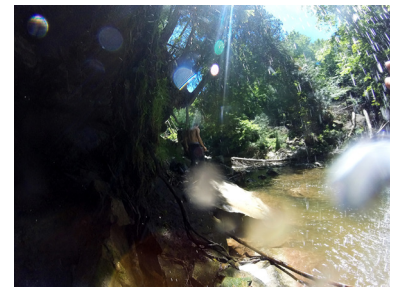
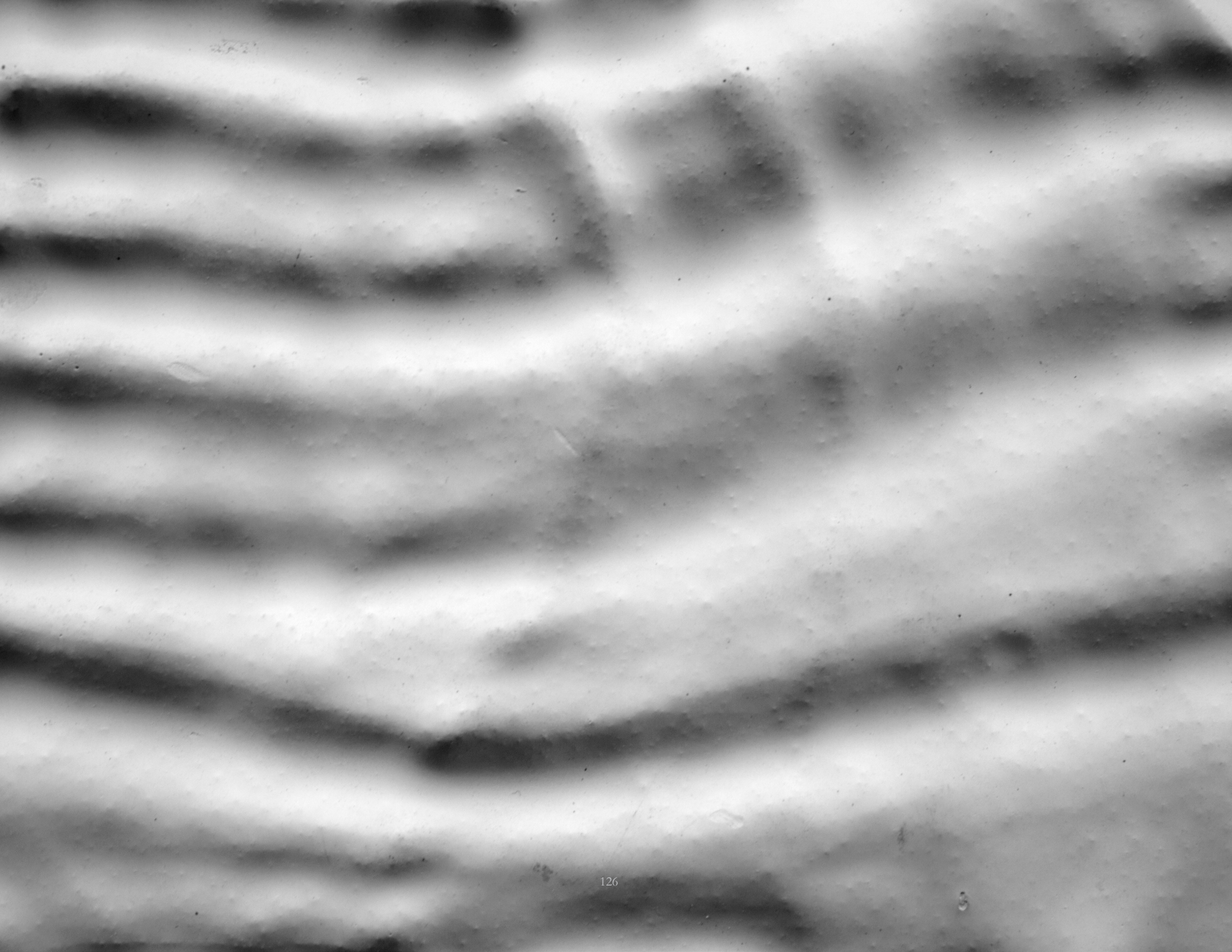


Plate 39. Snapshots 1/2



Pulling Threads

Moving between the physical and perceptual meshwork.

A new form of landscape is created with the following series of casts, done by transposing moments of astonishment to the artifacts' physical form. This landscape is thus not defined by geographical coordinates, but instead the rendering of climatic and material forces. In recognizing the minute details of the concrete and plaster casts, a reciprocal relationship is formed between the body and the undulating surfaces. This new form of landscape, is forged from layers of compounded sensations. As Gilles Deleuze writes in *What is Philosophy?*, there are variations from which this coming together of sensations can be achieved. While not isolating them, Deleuze nevertheless delineates these variations of sensorial compounds as the *vibration*, the *clinch*, and the *withdrawal*. The vibration is the natural fluctuation and rhythmic undulation of a single sensation's intensity; the clinch is the resonance between two intersecting sensations; the withdrawal is the space or void which is left at the release of the clinch.⁷³ While each variation exists within its own right, each is inherently reliant on the formation or release of the very same sensation, becoming intertwined and layered within the formation of a piece of art.

In the case of the series of casts entitled *Pulling Threads*, a single sensation is presented: that of shattering water. Through a meshwork of entangled lines, the documented encounters with waterfalls are entwined in a combined gesture, as the sensation of shattered water weaves between each of the five plates. As previously established, this sensation exists along

73. Deleuze, *What is Philosophy*, 168.

Figure 37. Light and Shadow (opposite)

a spectrum where changes in composition and materiality create shared moments of embrace⁷⁴ and withdrawal. These moments allow the simple sensation⁷⁵ of shattered water to exist in a layered multiplicity.

Compositionally, the clinch is revealed by way of a vertical and horizontal entanglement of lines, creating continuity with difference between the two extremes of shattered water. The first extreme is expressed in the accentuation of the vertical lines, drawn from moments where water is separated from earth. The other extreme is the horizontal articulation of water as it flows across the striated earth. As with sculpture, moments of withdrawal are found in the spaces between plates, and likewise between the body and the plates:

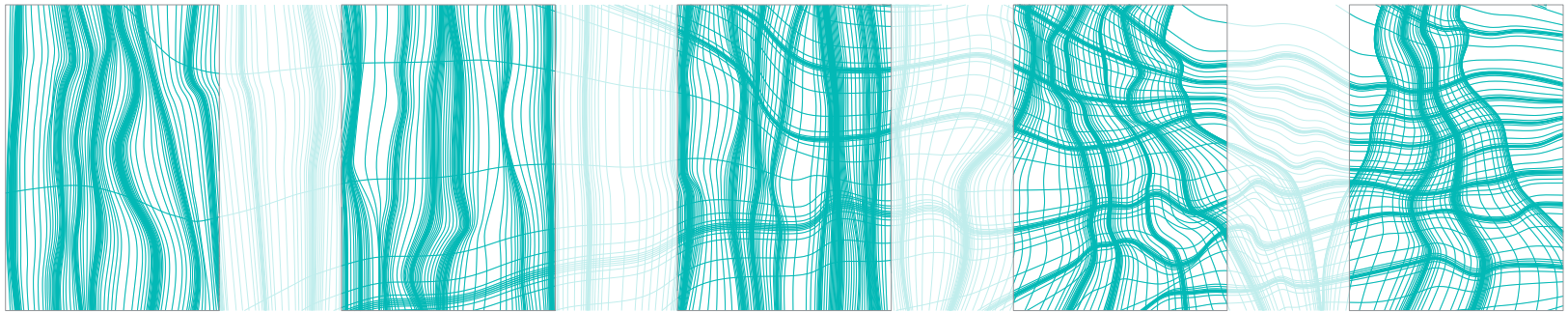
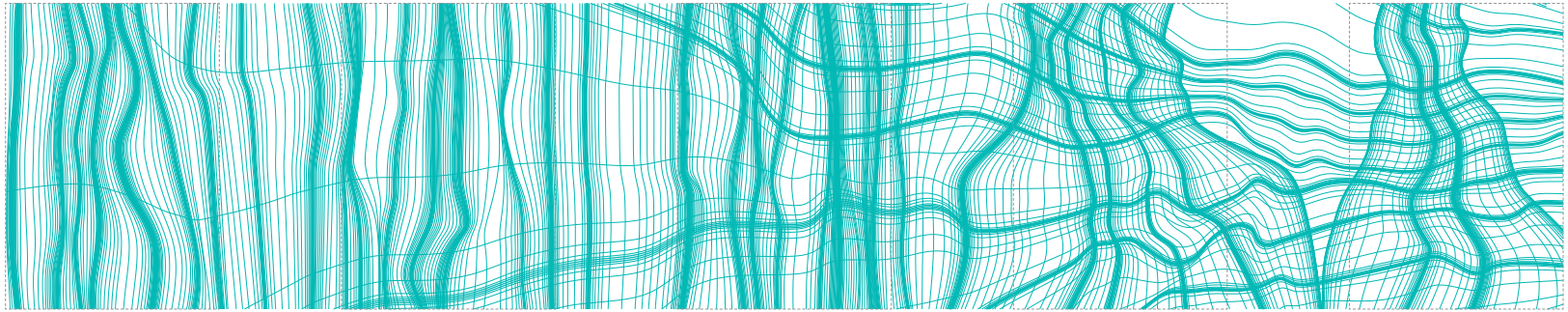
...with its sensations of stone, marble or metal, which vibrate according to the order of strong and weak beats, projections and hollows, its powerful clinches that intertwine them, its development of large spaces between groups or within a single group where we no longer know whether it is the light or the air that sculpts or is sculpted.⁷⁶

The interiority of the body and the artifacts extend outwards, establishing rhythm between the body in motion and the space it is navigating. A similar tension is created with the use of two materials, plaster and concrete, where the aesthetic differences of their distinctive material properties is explored by means of tone, reflectivity, and texture. In working with different materials, process becomes a guiding principle from which a series of transformations are used to achieve a specificity of sensation. It is as much the process as the material which determines the final result, and it is the dialogue between the two which speaks to the intuition of the craftswoman.

74. Ibid. Embrace is an alternative term used by Deleuze to describe the clinch.

75. Ibid. Simple sensation is an alternative term used by Deleuze to describe the vibration.

76. Ibid.



43.28° N / 79.98° W

51.83° N, 120.05° W

43.99° N, 80.08° W

51.23° N 115.56° W

51.33° N, 115.97° W

Figure 38. *The Meshwork*

Both sets of casts begin with the process of vacuum forming. This process requires that an initial set of plaster casts are made, from which sheet plastic can be formed. The sheet of plexiglass sits within a ply-wood frame and is heated so that it softens, almost to the point of collapse, before being placed on top of the plaster cast. The vacuum creates a system of negative pressure, as the malleable sheet of plexiglass takes on the form of the cast as it rapidly cools. The suction of the vacuum and the temperature of the plexiglass determine the extent to which the plastic conforms to the preliminary plaster cast. Not soft enough, and the plastic will harden before taking the desired shape; too soft, and ripples of excess plastic will distort the mold's surface.

The plaster casts that result from this process are where the “simple sensation”⁷⁷ can be felt most strongly. As the body and light move along the series of casts, patterns of reflection and refraction are displayed on the white surfaces. They appear almost as a series of blank canvases; at oblique angles, the surface of each cast catches, and then obscures, its surroundings. Abstract swathes of colour are reflected onto the plaster, transforming its surface, imbuing it with greater depth.

77. Ibid.



Figure 39. Plaster Series



Figure 40. Plaster Detail 01



Figure 41. Cascade Falls



Figure 42. Plaster Detail 01



Figure 43. Tew Falls

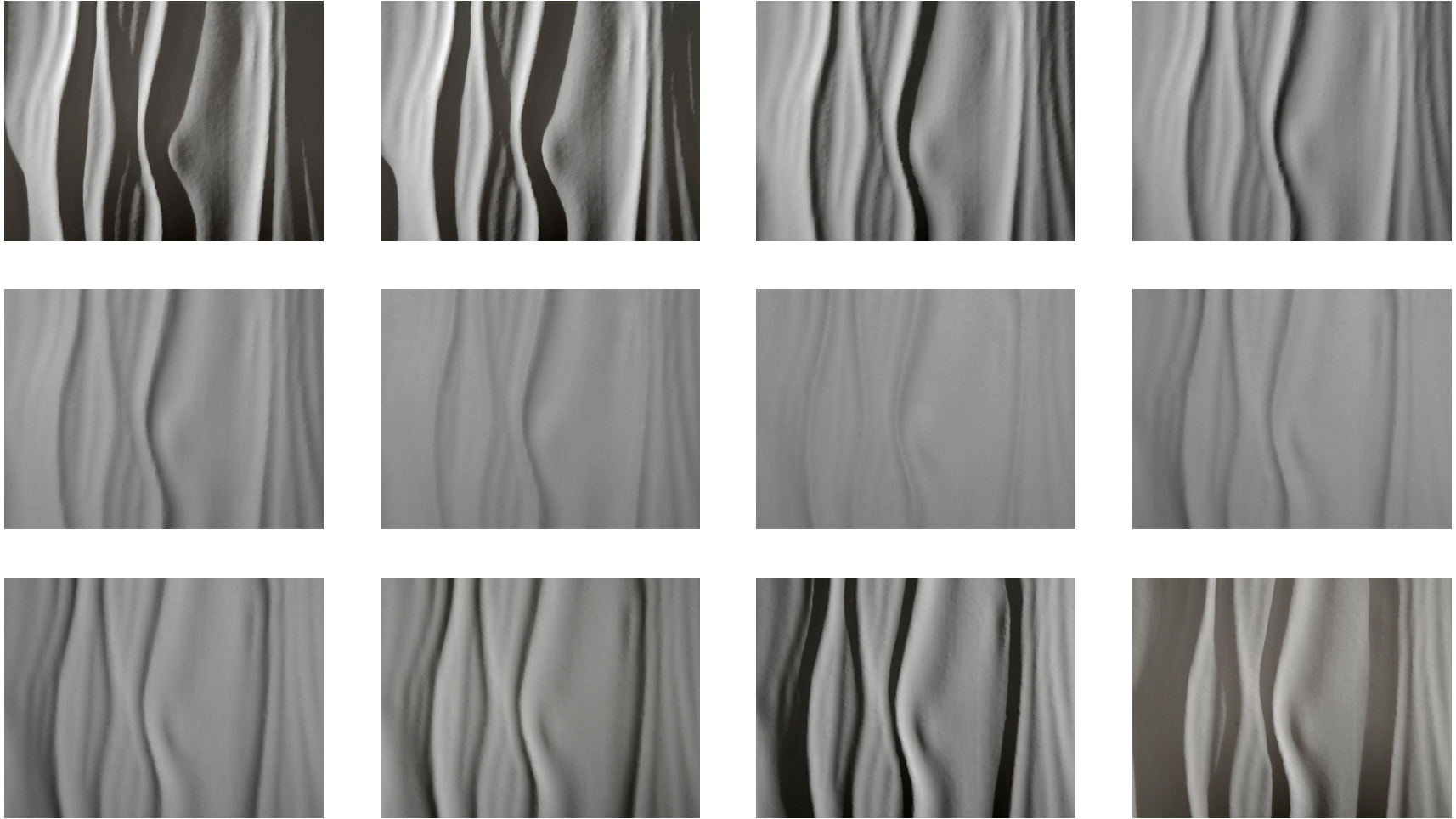


Figure 44. Plaster Snapshots 1/2

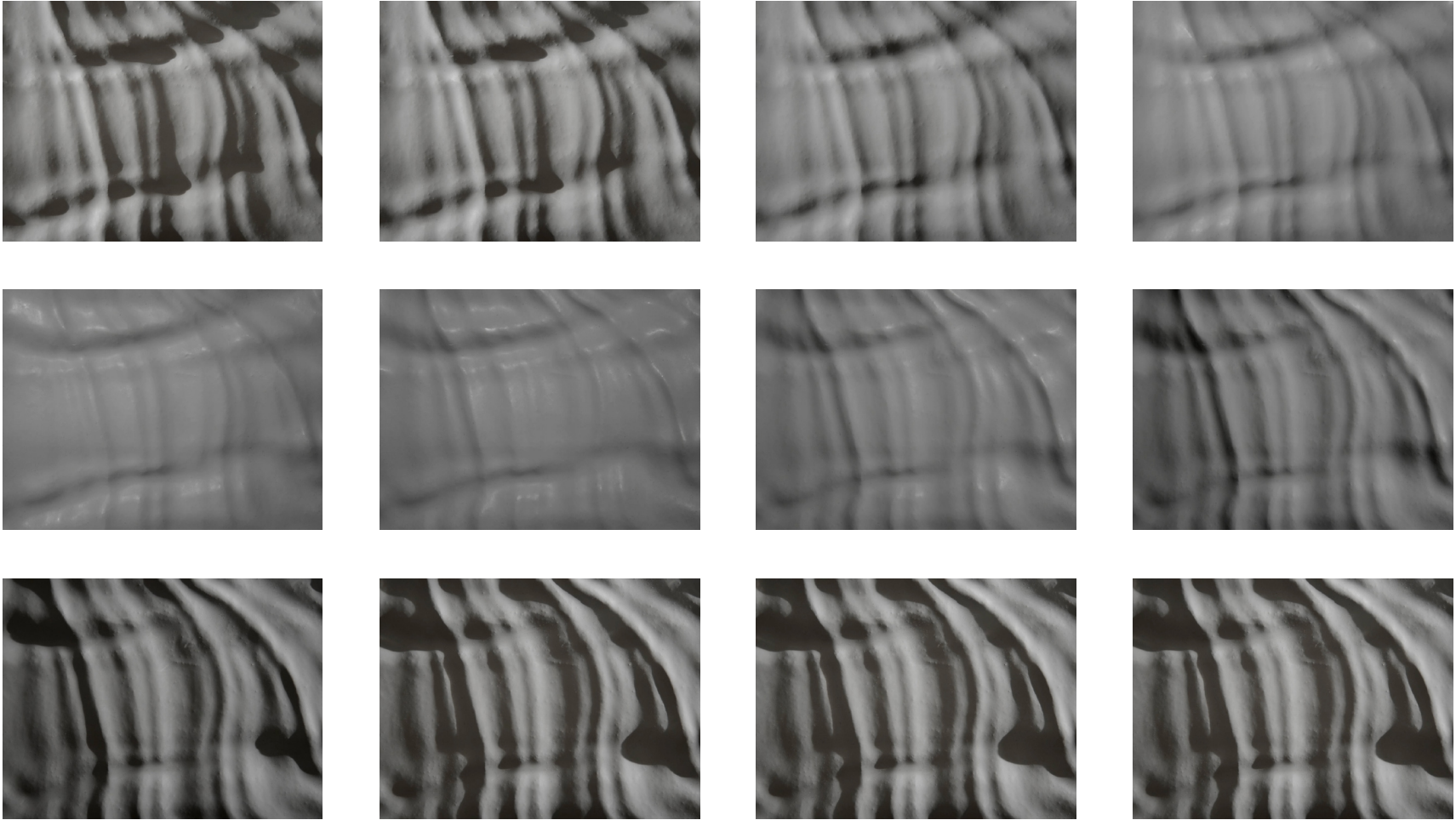


Figure 45. Plaster Snapshots 2/2

The process of working with concrete is one of controlled variation. A concrete pigment creates a gradation of tone, which moves from light to dark across the cast pieces. When mixing the concrete, all variables remain consistent, with exception of concrete pigment. For each cast, the amount of charcoal pigment was increased by two units, with the lightest cast containing one unit, and the darkest containing nine. Even when establishing tight restraints to the casting conditions, though, certain variables are uncontrollable; changes in ambient temperature and humidity can impact the resulting tone of concrete due to fluctuating climatic conditions. With plaster, the results are known almost immediately, but with concrete the entire process is slowed by the extended drying time. Patience becomes paramount. After allowing the concrete panels to dry and properly cure, a series of three buffing compounds are used to give the concrete a luminous finish. The process of buffing highlights variations in tone and texture, accentuating the topography of the concrete casts.

Even without the addition of light, the surfaces of the concrete panels are in motion, they transform, as the observer herself moves; the subtle gradation of tone emphasizes the meshwork of lines. Unlike the plaster pieces, the concrete plates, with their coloration and tactility, have a sense of permanence. When the series of casts are placed opposite each other, the immaterial plaster and the absolute material of the concrete stand in stark comparison; the body is caught in the void created between them.



Figure 46. Concrete Series

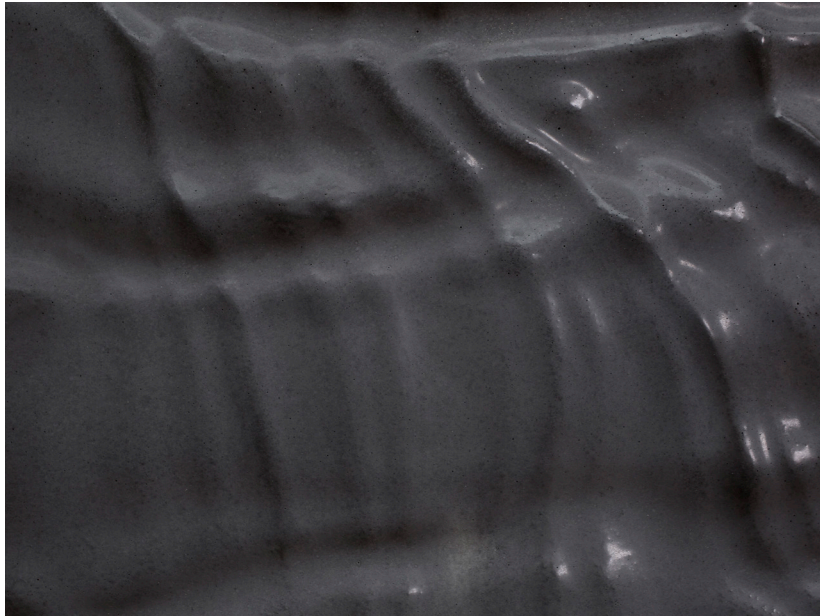


Figure 47. Concrete Detail 01



Figure 48. Castle Mountain

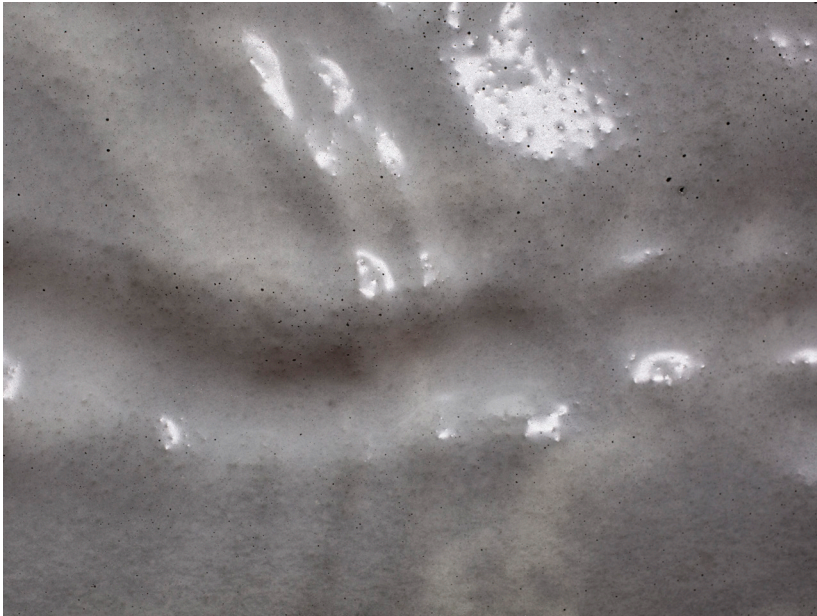


Figure 49. Concrete Detail 02



Figure 50. Moul Falls

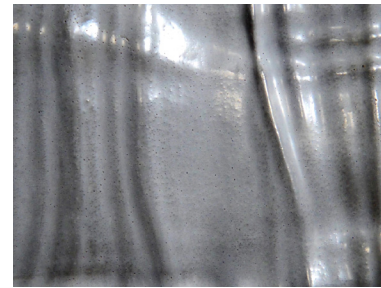
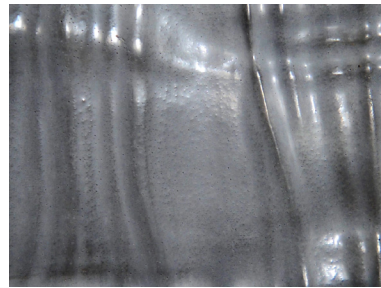
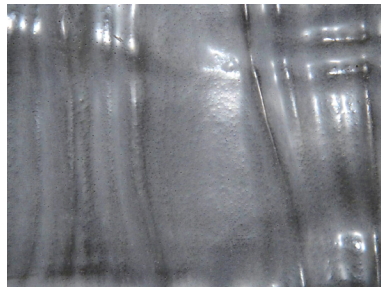
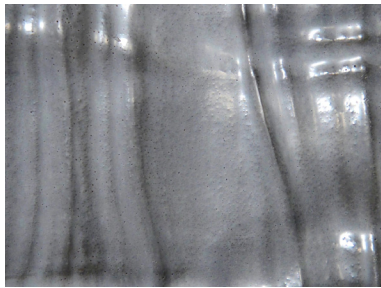
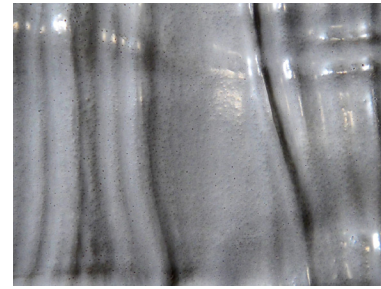
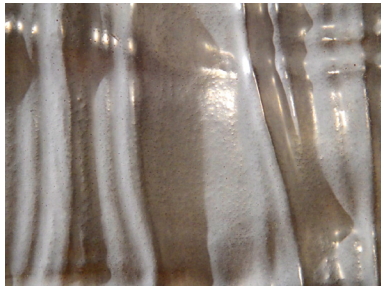


Figure 51. Concrete Snapshots 1/2

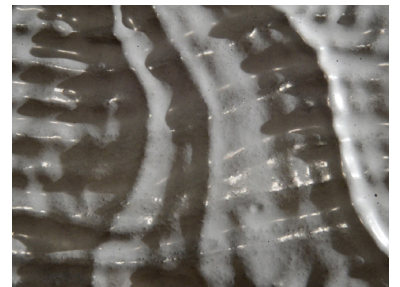
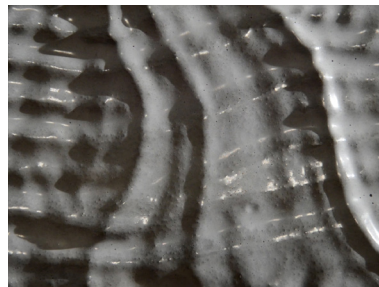
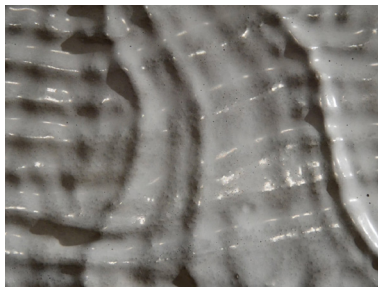
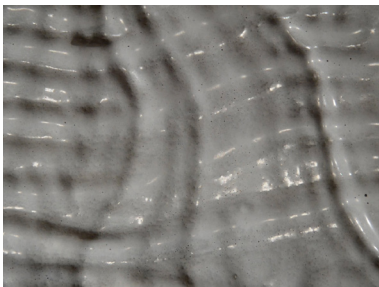
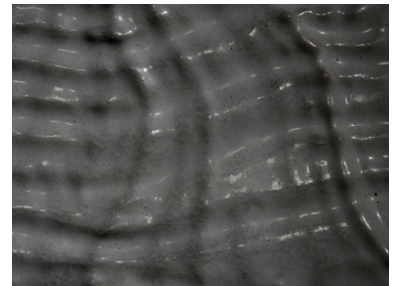
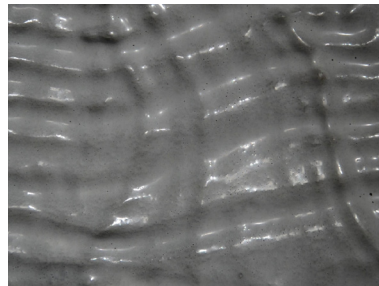
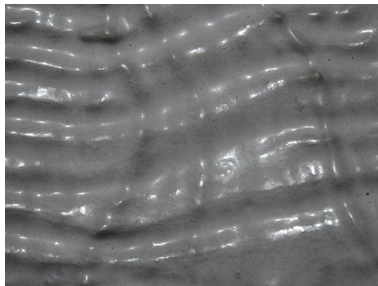
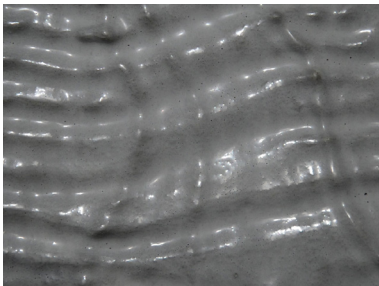
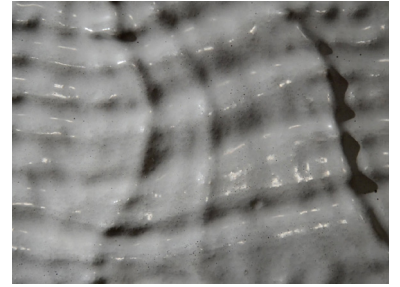
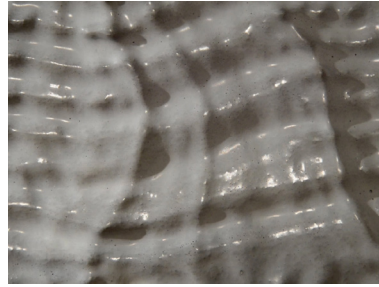
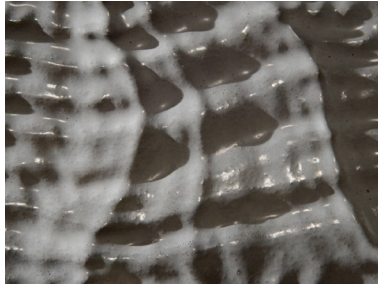
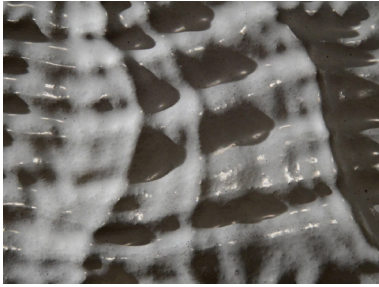


Figure 52. Concrete Snapshots 2/2



Cast 10. Plaster Series



Cast 11. Concrete Series

The series of casts engage the body as the primary site of environmental intimacy. Through this engagement, individual subjectivity is produced, forming an immediate relationship between the cast artifact, the movement of light, and the human body. The creation of this intimate relationship can realign the body to its environment, using the aesthetic qualities of the cast surface to do so. This new aesthetic is created by giving a material form to the shattering of water, resulting in an affective engagement between the movement of the body and space. This coupling of action and perception changes how knowledge is cultivated, foregrounding a sensorial understanding of the environment.

Pulling Threads becomes a mechanism to confront the cultural perception of a hostile and “unconscious” Nature. To connect distant landscapes to the present time and place, a meshwork of entwined voices, both human and non-human, are instilled into the cast surfaces. In a world where matter is alive, to engage with the casts is to acknowledge that the objects surrounding the body have as much to say as the people who gather around them. When the semblance of water moves across the casts, the language of earth and water are spoken. Engaging with the undulating form of *Pulling Threads* elicits a resonance between the tactility of water, and the intimate materialism of the casts.

51.83° N, 120.05° W

05.08.16

Moul Falls, Grouse Creek, British Columbia.

Height: 35m (115ft), Width: 9m (30ft)

Type: Plunge

Plate 40. Survey (opposite)





Plate 41. Split



Plate 42. Splash



Plate 43. Surround



Plate 44. Press

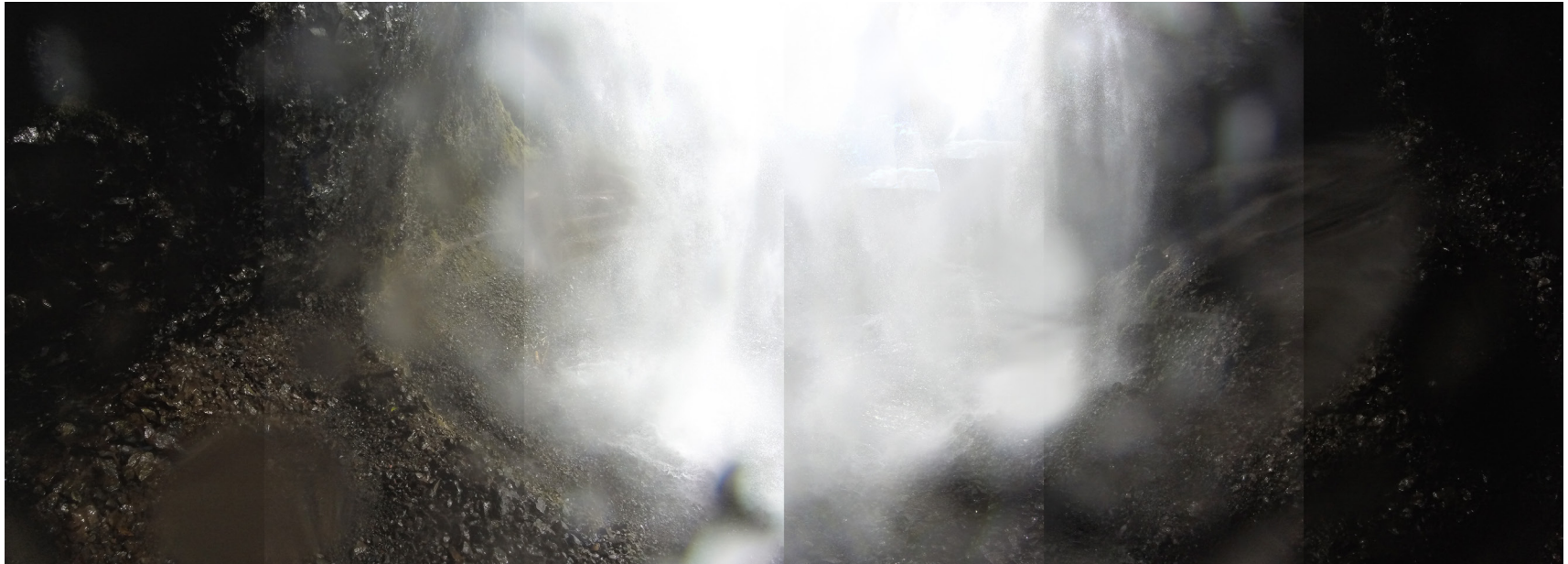


Plate 45. Obscure

The narrow gorge hides the falls from view. Only as the body descends its steep walls does the sound and sight of water begin to infiltrate the senses, breaking through the thick, surrounding forest. The body bends its way forward, navigating the edge of the enclosure forged by the forcefulness of the downward water. Encircling wide around the base of the falls, the body enters the void that the movement of water and air have created for themselves. The rock presses in from above and then crumbles towards the base of the falls. Cantilevered walls of volcanic rock lean towards the body, forming a protective cave and offering momentary shelter. Fragments of broken river cut through the air, landing heavily into the lower pool.

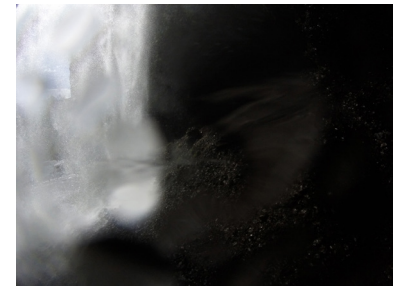




Plate 46. Extension

From behind the falls, the surroundings are obscured by the movement of water. Light transforms the water into clouds of shining droplets, soaking through clothing and skin and penetrating deep into the body. Water and air become indistinguishable. Gusts of air propelled upwards by the falling water press against the body, the lungs contract as the pressure exerts its force on the body, threatening to push it backwards. The body is caught in the force field of the waterfall, suspended in its grasp, caught within the reciprocal relationship of matter flowing up and down. Once again, the body is held within the precipice of nothingness, thrust back within familiar yet foreign territory. Emerging from the other side sunlight plays tricks with the falling water, illuminating the scene in glowing blooms of mist.



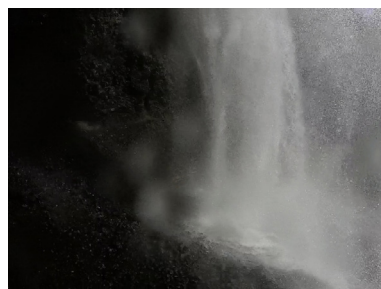


Plate 47. Snapshots 1/2

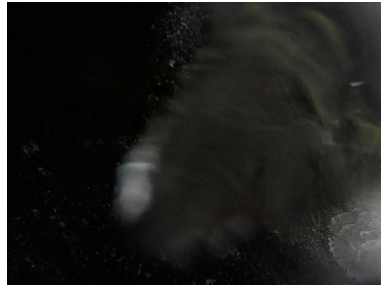


Plate 48. Snapshots 2/2



Afterword

Practitioners, I contend, are wanderers, wayfarers, whose skill lies in their ability to find grain of the world's becoming and to follow its course while bending it to their evolving purpose.⁷⁸

In his essay “The Tactility of Making,” Tim Ingold speaks to the necessary improvisation of the craftswoman, viewing the task of those who work with materials and lines to be one of constantly adjusting their gestures so “...to follow the ways of the world, as they open up, rather than to recover a chain of connections, from an end point to a starting point, on a route already travelled.”⁷⁹ Not unlike the acts of *opening*, *breaking apart*, and *entering*, this improvisation suggests a continuity of movement. In the process of casting, the control of the craftswoman is stripped away the moment the casts interact with the movement of light, and the passing of time. As with casting, my encounters with the waterfalls were also fleeting, and yet the influence of these encounters extended into my continued movement and actions. As Ingold asserts, “As with the walk, the task has a beginning and an ending. Every ending, however, is potentially a new beginning, marking not a terminus but a pause for rest in an otherwise continuous journey.”⁸⁰ While the paths chosen were under my control, they were also temporary – only for a short time did the line of my body and the line of the landscape intertwine. Still, the impression of shattered water lingers, and this impression becomes embedded into a new material form.

Figure 53. The release of shattered water, (opposite)

78. Ingold, *Being Alive*, 211.

79. *Ibid.*, 214.

80. *Ibid.*, 58.

In the struggle to gain an intimate understanding of remote landscapes from a distance, I was confronted with the same issue I was trying to overcome. My understanding of these landscapes was an amalgamation of gathered images and data, and so these faraway places were predominantly constructions of my own imagination. The experience of trying to gain a sensorial understanding of these distant landscapes made me acutely aware of how our perception of these places is largely built-up by only examining what can be read from the surface.

In contrast to this initial intention to focus on distant landscapes, the objects I have spent the past year crafting were reliant on my own physical encounters with the shattering of water. The importance of these “up-close,” personal experiences can not be substituted or reduced. There is an undeniable knowledge associated with these landscapes that can only be learned through the feet, reaffirming the transformative power of unmediated physical encounters with the natural environment. Though expressive of non-human forces, the casts are, of course, human creations. When engaging with the cast surfaces, yet again, the human-centric perception of our surroundings prevails, although I would like to believe the casts bring forward a recognition of the natural forces that flow between environments, addressing a cultural detachment, and reanimating the Canadian landscape. The affective potential of the cast surface is not a terminus but a moment of reflection within a longer, more continuous journey of ecological attunement. The following design proposal for Toronto’s Winter Stations competition brings the sensation of shattered water into the city, reanimating mundane urban instances through intimate encounters with the perceptual flow of water, thereby harnessing the potential of form-giving to subvert capitalist values, regain an attunement towards the environment, and create a renewed sense of environmental intimacy.

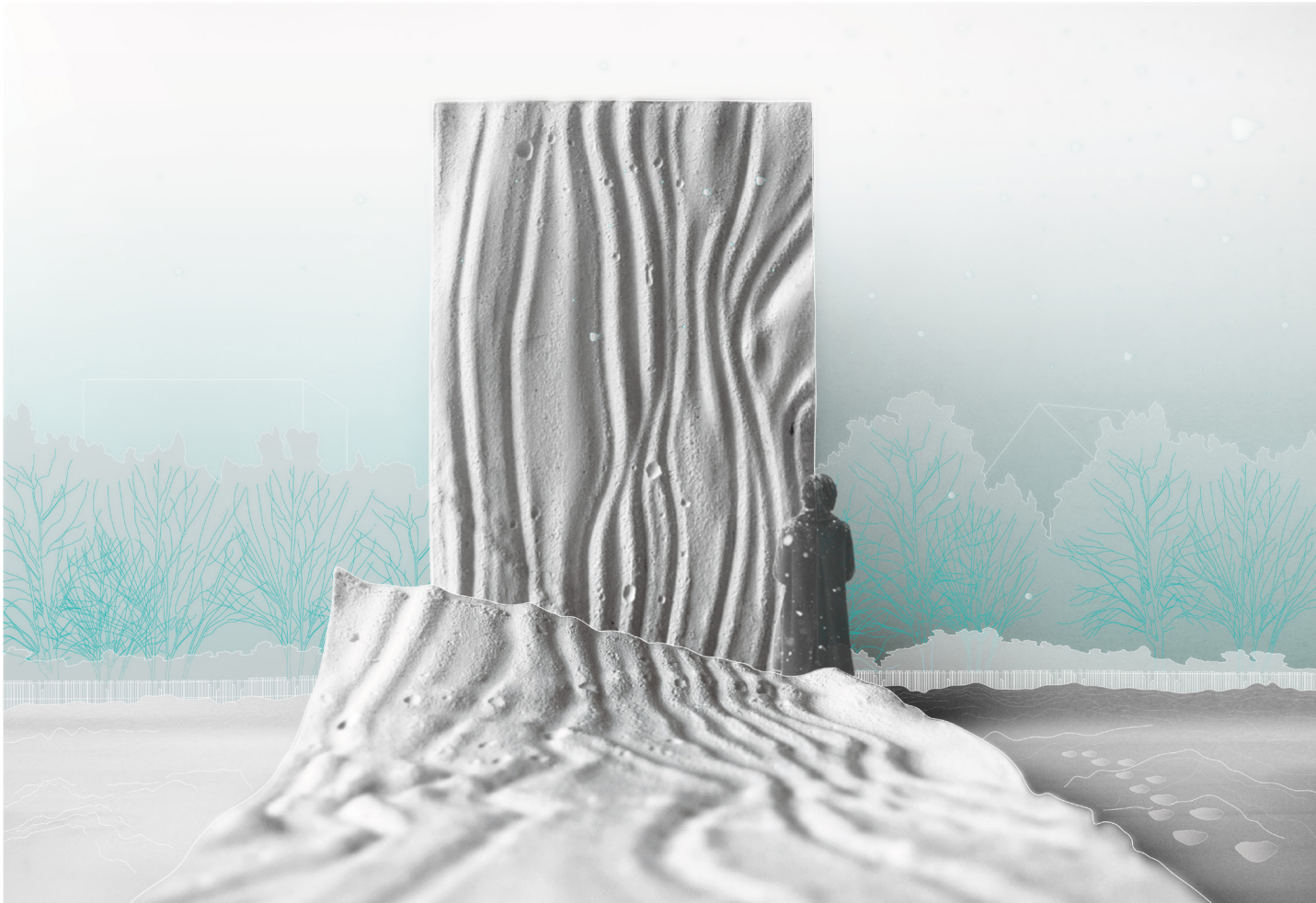


Figure 54. The body occupies the space between the two planes, caught within the meshwork.

The theme of the 2017 Winter Stations competition, *Catalyst*, challenged designers to create installations that altered the perception of visitors engaging with the installation:

This winter, we ask artists and designers to unearth and intervene in such a way as to open up the landscape, as well as the minds of those who come to view and interact with the installations.⁸¹

The call for the Winter Stations competition was thus in line with the principles of environmental intimacy, and this presented an opportunity to work with the potential of affective deterritorialization at an architectural scale. Using the restrictions of the Winter Stations competition in terms of site, duration, and intent, the design focuses on the relationship between the body, space, and climatic forces. *The Falls* brings attention not only to the climatic conditions of the physical site, but also the distant sites of the waterfalls. The design seeks to create both a continuity between the body and space, and continuity between materials and time. The installation consists of two planes situated in relation to Toronto's shoreline; one plane extends out towards Lake Ontario, the other extends vertically towards the sky. A network of lines runs between the two planes, creating continuity between separate environments as the simple gesture of the planes are brought together.

81. "Competition 2017," *Winterstations*, accessed February 12, 2017, www.winterstations.com/competition.

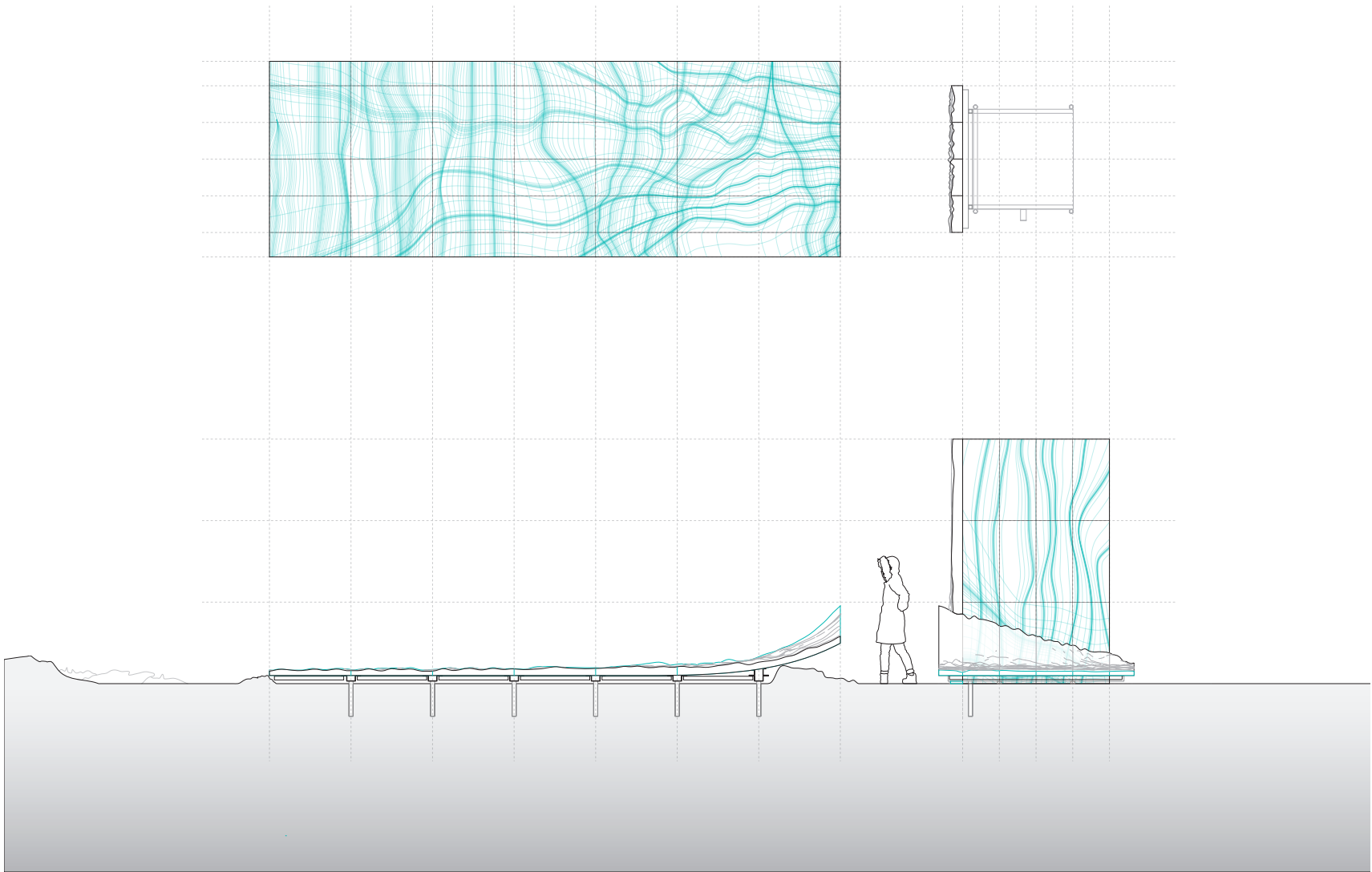


Figure 55. Orthographic Drawings - plan (top), section/elevation (bottom).

A formative intention of *The Falls* is to extend the life of the installation beyond its initial siting on Toronto's waterfront into varied and indeterminate possibilities. As outlined in the competition brief:

Entrants should address in their proposals a post-Winter Stations' life, including de-commissioning / removal and the potential opportunities they see for their design, such as possible new sites and / or new objects.⁸²

Placed throughout the city groupings, the modular cast pieces become micro-political and micro-social statements – urban instances where the built fabric might begin to radiate feeling, and inspire action. In the dispersal of the modular cast pieces, *The Falls* imagines an architectural form that connects with fluid space, coupling action and perception in the formation of meaning. Existing surfaces within the city are subverted to create instances of environmental intimacy; even when dispersed, the formation of the perceptual meshwork draws lines between the panels. The design of the structure remains in-formation even after the role of the designer has come to an end, as the perceptual movement of water flows continuous across its surface.

82. "Competition 2017," *Winterstations*, accessed February 12, 2017, www.winterstations.com/competition.

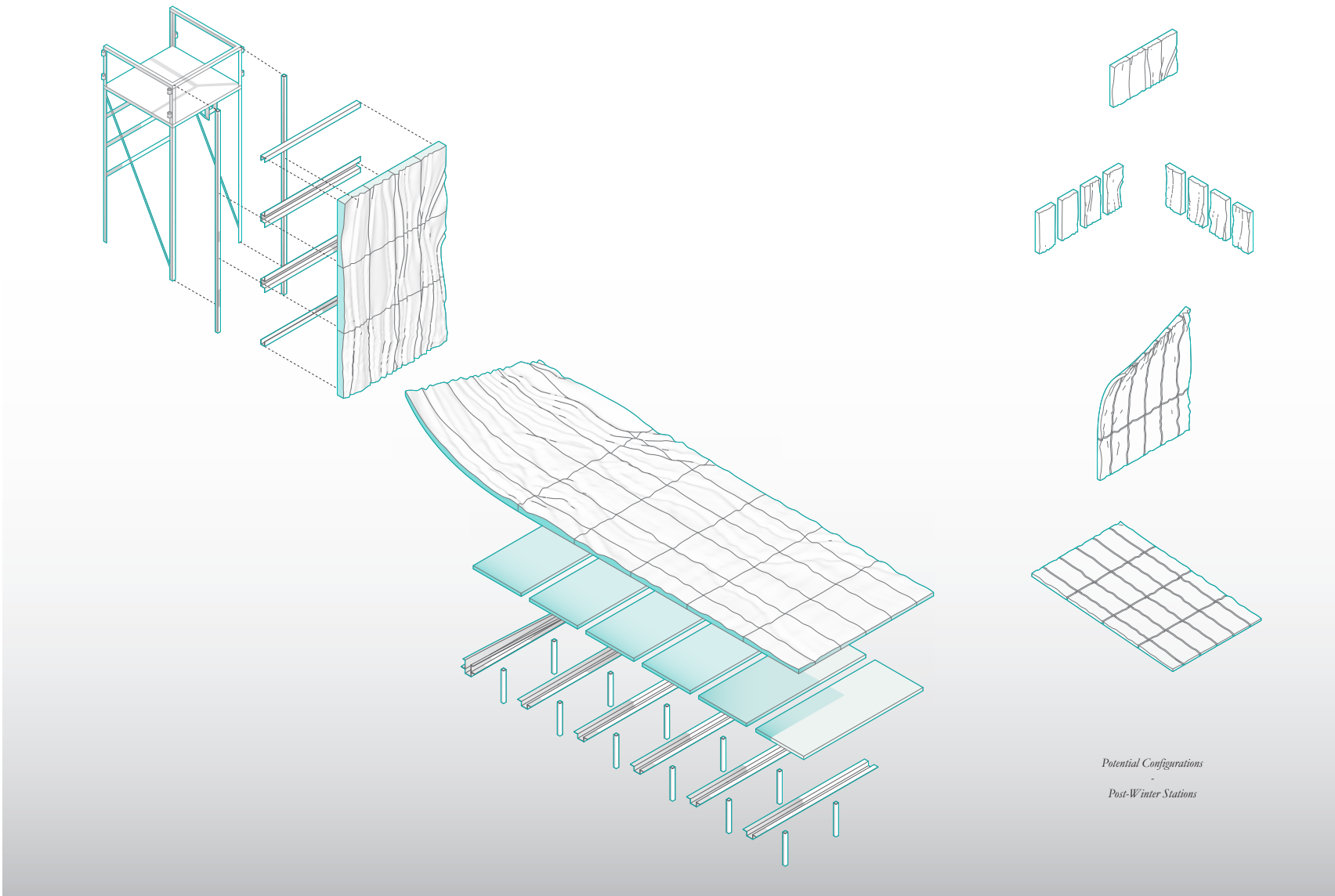


Figure 56. Exploded axonometric showing structural components, and future configurations.



Figure 57. Configuration 01 - Appearing in subway stations, the light from the passing trains illuminate the surfaces of the concrete pieces.

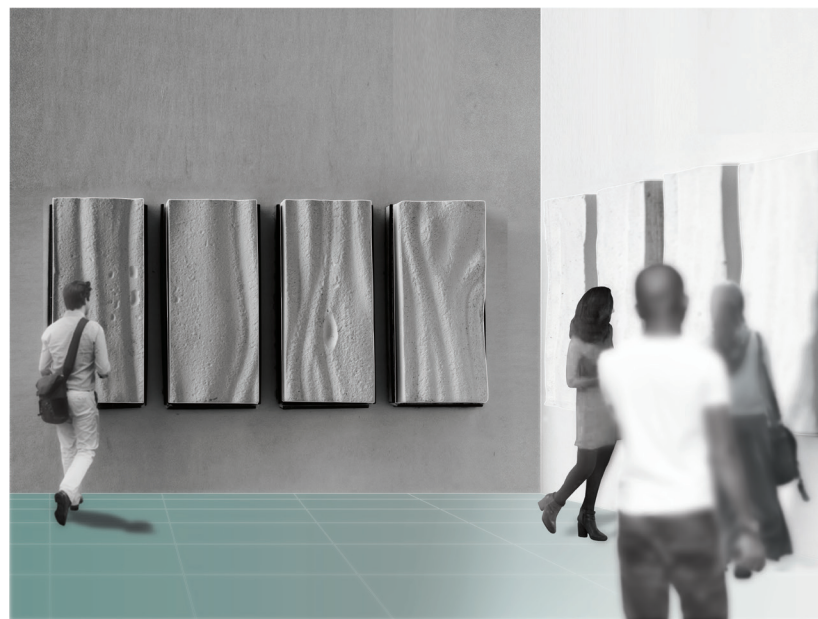


Figure 58. Configuration 02 - Brought into public institutions, as art pieces they begin to engage those who occupy and visit the spaces.



Figure 60. Configuration 03 - Occupying blank surfaces within the city, under utilized spaces are given an aesthetic micro-political purpose.

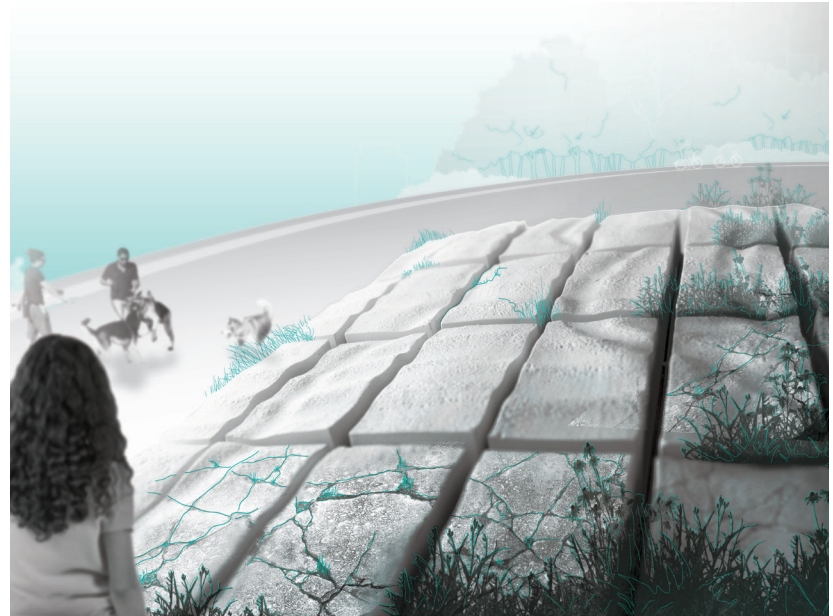


Figure 59. Configuration 04 - Nestled within a Toronto park the growth of flora erodes the concrete, giving way to new life.

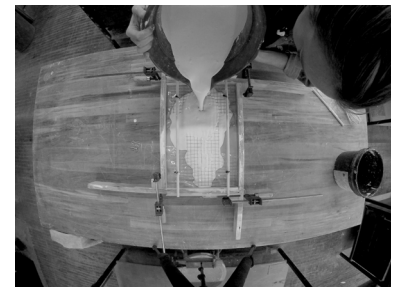
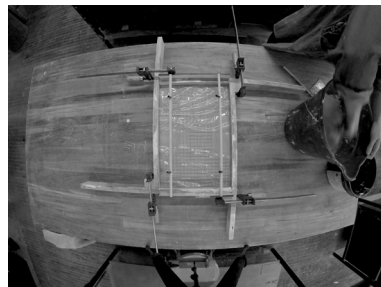
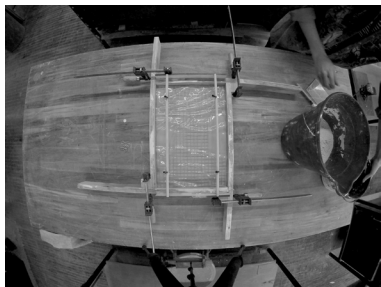
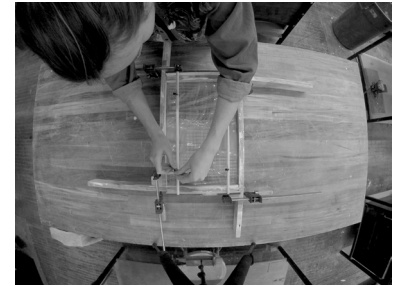
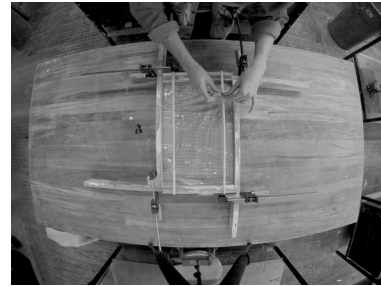
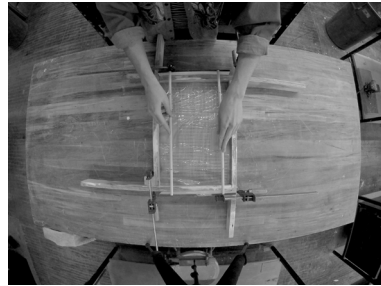
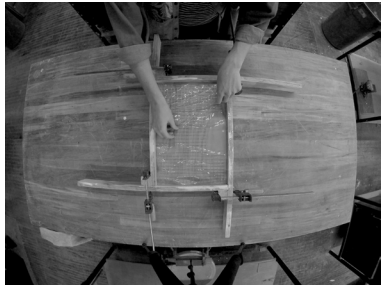
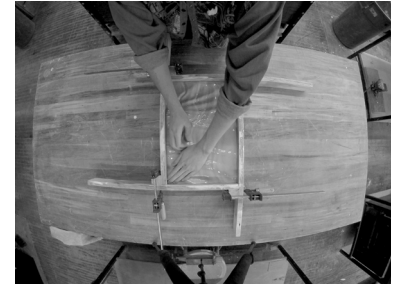


Figure 61. Plaster Process 1/2

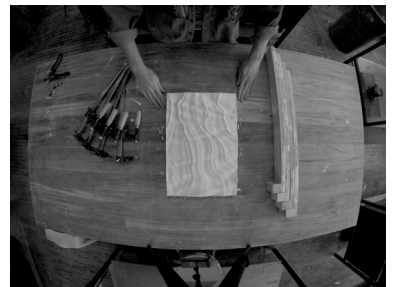
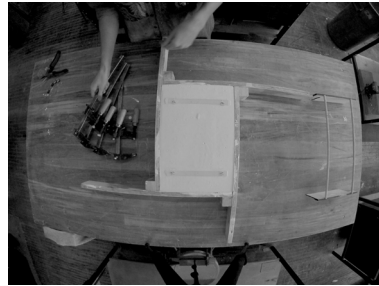
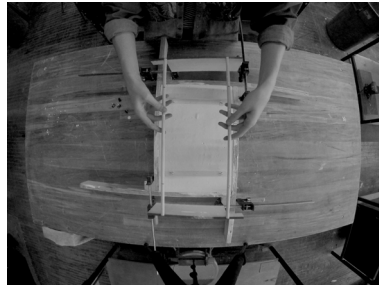
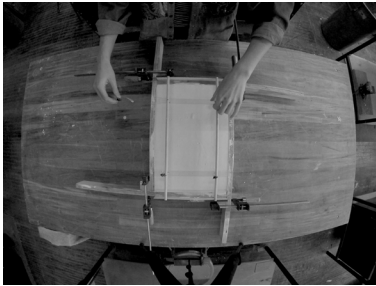
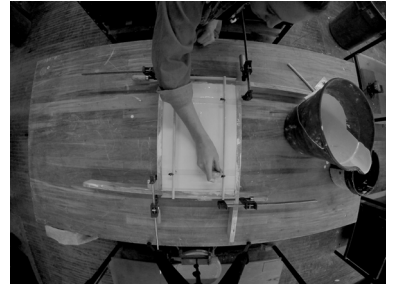
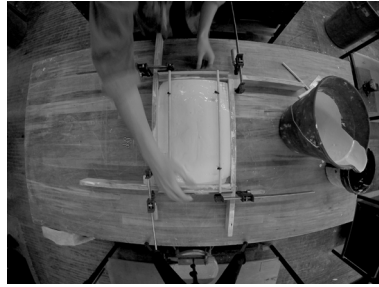


Figure 62. Plaster Process 2/2

Bibliography

Atwood, Margaret. *Survival : A Thematic Guide to Canadian Literature*. Toronto: M & S, 2004 c1972.

Bachelard, Gaston. *The Poetics of Space*, edited by Jolas, M. Boston: Beacon Press, 1994.

———. *Water and Dreams : An Essay on the Imagination of Matter*. Dallas: Pegasus Foundation, 1983.

Bateson, Gregory. *Steps to an Ecology of Mind*. New York: Ballantine Books, 1983.

“Competition 2017,” *Winterstations*. Accessed February 12, 2017. www.winterstations.com/competition.

Deleuze, Gilles and Félix Guattari. “Of the Refrain.” Chap. 11, In *A Thousand Plateaus, Capitalism and Schizophrenia*. Translated by Massumi, Brian, 310. Minneapolis: University of Minnesota Press, 1987.

Deleuze, Gilles. *What is Philosophy?*. New York: Columbia University Press, 1994.

- Deleuze, Gilles. *Francis Bacon : The Logic of Sensation*. Minneapolis: University of Minnesota Press, 2003.
- Frye, Northrop. *The Bush Garden : Essays on the Canadian Imagination*. Toronto: Anansi, 1971.
- Guattari, Félix. *The Three Ecologies*. London: Continuum, 2008.
- Ingold, Tim. *Being Alive : Essays on Movement, Knowledge and Description*. London ; New York: Routledge, 2011.
- Ingold, Tim. *The Life of Lines*. Milton Park: New York: Routledge, 2015.
- Kurgan, Laura. *Close Up at a Distance Mapping, Technology, and Politics /*, edited by Laura Kurgan. 1st hardcover ed. ed. Brooklyn, NY : Zone Books, 2013, 2013.
- Langer, Susanne K. *Feeling and Form : A Theory of Art Developed from Philosophy in a New Key*. London: Routledge & Paul, 1953.
- Manning, Erin and Brian Massumi. *Thought in the Act : Passages in the Ecology of Experience*, edited by Massumi, Brian. Minneapolis: University of Minnesota Press, 2014.
- Massumi, Brian. *Parables for the Virtual Movement, Affect, Sensation*. Durham, NC: Duke University Press, 2002.
- Michaels, Anne. *Fugitive Pieces*. Toronto: McClelland & Stewart, 1996.
- Pauli, Lori. *Manufactured Landscapes : The Photographs of Edward Burtynsky*. Ottawa: National Gallery of Canada in association with Yale University Press, 2003.
- Spuybroek, Lars. *The Architecture of Continuity : Essays and Conversations*. Rotterdam : New York, NY: V2_Pub. ; Distributed in North America through D.A.P./Distributed Art Publishers, 2008.
- . *Sympathy of Things : Ruskin and the Ecology of Design*. Rotterdam: V2 Publishing : NAI Publishing, 2011.

Appendix A - Instilling Movement Video

This appendix is a video illustrating the movement of light across the surfaces of the casts found in “Instilling Movement.”

The file name of this video file is “Mediations of Shattered Water Instilling Movement”.

If you accessed this thesis from a source other than the University of Waterloo, you may not have access to this file. You may access it by searching for this thesis at: <http://uwspace.uwaterloo.ca>

Appendix B - Pulling Threads Video

This appendix is an video illustrating the movement of light across the surfaces of the casts found in “Pulling Threads.”

The file name of this video file is “Mediations of Shattered Water Pulling Threads”.

If you accessed this thesis from a source other than the University of Waterloo, you may not have access to this file. You may access it by searching for this thesis at: <http://uwspace.uwaterloo.ca>