

Smooshes, Slabs & Slices:
Entanglements in Ceramic

by

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DECLARATION

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ABSTRACT

Smooches, Slabs & Slices is an exhibition of sculptural, ceramic-based assemblages that capture moments of transformation in progress. A raw material is made precious, a lump of solid clay is smooched, a slab is in motion. Each object is fabricated in a bricolage manner of a collection of unlikely material actants, and transformed through digital and hand made processes. At a foundational level, these objects tell a story about physical forces exerted on materials, the results of which reference a range of geologically and culturally-entangled contexts around ideas of displacement, transformation, permanence and fragility. This practice-based research was created through a diffractive methodology which encourages method to emerge from meaning and vice versa.

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Smooches, Slabs and Slices

Entanglements in Ceramic

Chapter 1

INTRODUCTION

The legend of the formation of the Sudbury basin is epic (Figure 1) Scientists say that a comet struck our planet 1.8 billion years ago and formed the second largest crater on earth. The impact punched through the earth's mantle and the resulting opening subsequently filled up with molten rock and veins of precious metals. (Petrus, Ames and Kamber, 2015)

I come from Sudbury, Ontario, known for its jagged, rocky landscape. I have experienced what it means to live where the land is rock, in a city that exists on and because of rock. The urban fabric is not built around a grid. Instead, rock cuts are formative elements within the urban context, causing roads to meander and jog, and houses to be built up high and down low, following the elevation

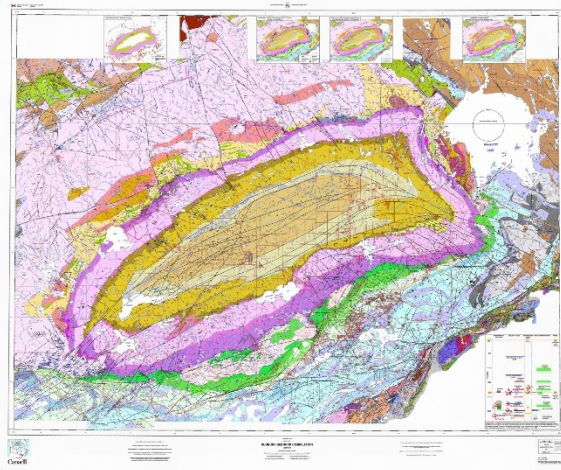


Figure 1. Sudbury Basin
instruct.uwo.ca/earthsci/fieldlog/Sudbury/sudbury072048.jpg

of the land. Sudbury is also home of the world's largest concentration of nickel mines which are located around the rim of the crater. The area has been mined continuously since the 1880s, so the deepest shafts are some 10,000 feet deep. The mines used to employ 25,000 people, most of them working underground, day by day, digging, blasting, and excavating material. The incalculable amount of displaced material boggles the mind. I have been underground; it is a cave...

completely dark, wet and eerily quiet. A space dug out from within a solid. I have also worked on surface in the tailings, over several summers when I was a young architecture student. The nickel refinement process is such that once brought to surface, rock is first crushed and separated. Then the undesirable material – the tailings, similar to a black version of beach sand – is flushed out into huge expanses of territory through miles and miles of pipe. The desirable material – the ore, a brassy looking rock – is sent for smelting, a process by which the rock is melted and the precious metals – mainly nickel and copper – are retrieved. After the smelting process, the molten impurities are poured like lava down a hill, creating a red glow in the sky that the whole city can see, as well as a growing mountain of black slag.

As a result of my rocky experiences from living in Sudbury, I have often contemplated the realities of excavation and displacement from the perspective of land displaced through mining, and land displaced through real estate development. Underground, land is considered raw material, a resource to be mined that is deemed incredibly valuable. So valuable that multinational companies invest billions of dollars to extract the desired minerals to be processed into another form of raw material – stainless steel, copper and platinum – commodities sold in the global marketplace, bound for cell phones and other such familiar consumer goods. Whereas on surface, land is removed or reduced to aggregate to make flat space for construction. Rock is land, rock is resource and commodity. Underground, the land is valued for what it is – rock. Above ground, the land is valued as property, not for its material properties. I observe that such shifting perspectives can alter the meaning of the subject. So from a mining perspective, the solid (rock) is the product, whereas from a real estate perspective, the void (the empty space) is the product. I see a certain irony in this play of solid and void, and am interested in the concept of displacement as a shifting – a displacement – both physical and philosophical. Further to this point, Robert Smithson, a 1960s land artist, points out that a product of value is a matter of perspective. From the earth's perspective, slag is just another material, but to industry it is considered an 'impurity':

“The smelting process that goes into the making of steel and other alloys separates “impurities” from an original ore, and extracts metal in order to make a more “ideal”

product. Burnt-out ore or slag-like rust is as basic and primary as the material smelted from it... Refinement of matter from one state to another does not mean that so-called “impurities” of sediment are “bad” – the earth is built on sedimentation and disruption”. (Flam and Smithson 1966, 106)

Entanglements

These observations have led me to think about the concept of entanglements. I first came across the term entanglements while reading quantum physicist Karen Barad’s *Meeting the Universe Halfway*. In it she discusses how matter and meaning are entangled with each other in that they are always co-constitutive, meaning, they are continuously making and re-making each other.

The word entanglements conjures an image of threads twisted together – individual factors that are bound and inseparable to shape a thing’s material form and influence how it is understood. This notion of entanglements suggests that the material world ‘takes on’ or performs varying identities depending on how, from what perspective and for what agenda it is perceived. According to Barad, in science, the apparatus created for research inevitably influences the findings themselves, in that the findings are different depending on the questions asked and the apparatus involved. (Barad 2014, 180) “The apparatus is an inseparable part of the observed phenomenon”. (ibid, 180) A classic example of this can be found in *Chaos*, where author James Gleick demonstrates how the length of a shoreline can be infinite, depending on the size of the measuring stick. Calculating every nook and cranny results in a different length than a less detailed approach. (Gleick 1987, 98) In this way, the measurement is entangled with the apparatus used to measure.

At our human scale, we can only perceive the physical world through the lens of our bodily senses. Our corporal apparatus is tuned for a specific spectrum of abilities. So, we don’t see atoms exchanging electrons or cells dividing with our naked eyes, or perceive plants growing while we watch. For that matter, nor do we notice that the earth is round or that it is a spinning celestial body. But all this is happening nevertheless. Echoed by Barad, “[e]ach bit of matter, each

moment of time, each position in space is a multiplicity, a superposition/entanglement of (seemingly) disparate parts. Not a blending of separate parts or a blurring of boundaries, but in the thick web of its specificities, what is at issue is its unique material historicities and how they come to matter”. (Barad 2014, 176)

Barad’s concept of entanglements resonates with me. As a designer and artist from Sudbury, my interest in rocks comes naturally. Where I come from – the place, the geographic location – is entangled in my cultural identity, influencing how and what I create. Seemingly incongruent concepts like the hardness of rock and the fragility of porcelain are themes in my work inspired by my observations and life experiences. Through my work, I attempt to make connections between material as raw, and material as pure object, between human scale and industrial scale, between a stone and a landscape.

Where Karen Barad comes from a science background, archaeologist Ian Hodder approaches the concept of entanglement from a material culture perspective, describing “...a dialectic of dependence and dependency between humans and things. The term “entanglement” seeks to capture the ways in which humans and things entrap each other. But it also seeks to recognize the ways in which a continual and exponentially increasing dynamism lies at the heart of the human experience”. (Hodder 2014, 20) I see entanglements as both meaningful and creative properties of the materials I use and the objects that I make. Otherwise said, my work is not about geology but, like a piece of raw ore, it is entangled with geology. Similarly, my work is not about craft but, because I use clay, it is entangled with craft. My work is not about material culture, but because I produce ceramic, material culture is an entanglement.

I had in mind for my practice-led research to involve experiments with clay and ceramic. Hand building is a method of working with clay that starts with a lump or a slab. Lumps are solid volumes that can be squished between hard objects, and slabs are surfaces that can be draped and/or folded to form a volume. The crux of my project is about the exploration of the relationship of material to a process. Not clay as a medium with which to create something useful or beautiful

and not process simply as a series of transformative steps that lead to a predictable end product. Rather, I am interested in clay as material and an end in itself, transformation as action made final, and process as a creative force. I question: what are the outcomes if a material's natural properties along with the early steps in a process were the finished product in itself? What does it mean when the material and the process are active participants – agents – in creation? And, in what ways do clay's material entanglements convey context and meaning to a work? This was how I began my process of experimentation with clay.

I have created two bodies of work – *Smooshes & Slabs*, and *Tectonic Plates* – both of which are rooted in the exploration of clay as a sculpture material and the production of ceramic as a final sculptural object (Figure 2, Figure 3, Figure 4). *Smooshes & Slabs* are playful assemblages that showcase fired and glazed ceramic elements performing as wet clay in the process of being squeezed or formed between heavy objects. The *Smooshes* and their corresponding wooden “smooshing tools” are tied together with straps or rope to create a pretence of engaged, active forces. Similarly, *Slabs* are formed using jigs made of dowels, rope and tubing, and, despite being fully fired and glazed, are presented as if in the process of their formation. *Tectonic Plates* is an assemblage of ‘platters’ that stack to form a porcelain boulder, a sculptural depiction of raw material made precious through digital and hand made processes. Cast in sections, the boulder is an enlarged replica of a piece of nickel sulfide ore, the resource that is mined in Sudbury.

At surface, it may not be obvious how the two projects relate. Although they share a common base material – ceramic, they are very different in form and attitude. But despite their differences, they both explore geologically-entangled themes, as previously outlined, presenting a continuum of perspectives around ideas of displacement, transformation, permanence and fragility.

Tectonic Plates is a representation of a rock cast in porcelain. Not just any rock... a piece of Sudbury ore, but a rock nonetheless. Produced in 16 horizontal slices, the individual pieces point simultaneously to geological layers – a suggestion of landscape – and also to dishes, a nod to the craft tradition of ceramic. The piece of ore is the material of value mined in Sudbury, so it



Figure 2. *Smooshes*



Figure 3. *Slabs*. Photo by Kristy Boyce



Figure 4. *Slices*

stands for the idea of land as product. Likewise, the use of porcelain, and the fabrication of dishes, speaks to the idea of product and commodity. Presented as a whole, the assemblage creates the unified visual understanding of a boulder. The act of enlargement from a rock to a boulder suggests a unit of any scale – a pebble, a stone, a boulder – in this case a piece of ore, a natural resource presented as a work of art. In other words, a raw product (ore) is transformed into a representation of itself (a boulder), by another material (clay) in a finished state (ceramic) In material culture, raw material is considered formless since it is not an artifact made by humans. In re-envisioning a rock as sculpture, I am deliberately tugging at the threads that connect raw and finished, matter and object.

Squishing, folding, bending, twisting... the *Smoosh* project is about forces exerting transformative power on clay, referencing tectonic activity – geological forces that create clay to begin with. The *Smooshes & Slabs* also speak to industry and the act of making in their depiction of raw process frozen in time.

Up to this point I have attempted to sketch an overview of the studio projects and their shared entanglements, as influenced by my contextual background. In the paper that follows, I intend to develop these ideas further and illuminate a few of the conceptual and physical entanglements that drive both my studio and written work. I present this research paper as an assemblage of pieces, entanglements if you will, borrowing from a range of disciplines to support my explorations.

Chapter 2

LITERATURE REVIEW

The key threads of investigation that I have identified in my work are: material, objects, and entanglement with meaning. I see these themes as territories that don't necessarily fall neatly within distinct boundaries but rather shift and overlap, reflecting the journey I am traveling through my work and my education.

Jane Bennet is a political theorist whose work around material and objects, is rooted in a concern for the environment and over-consumption. Her applied approach is appealing and brings a real-world relevance to her topics. Tim Ingold is an anthropologist who looks at objects from both the perspectives of the maker and the process of making, as well as their place in material culture. And, Anna Fariello, a curator and scholar, ties together ideas around the relationship of objects and human culture, and how meaning develops through ritual.

I have chosen this ecology of texts because of the ways the entanglements of their individual and varied approaches bring relevance to my work. Jane Bennet's 'Vital Materialism', Tim Ingold's 'Thinking through Making', and Anna Fariello's 'Objects and Meaning', set out theoretical positions that have provided me with a vocabulary. They have modelled ways of thinking about material and processes as having creative agency, about the act of making as a relationship and about the context of meaning. Together they provide a framework within which I can position the crux of my work. I will unpack these ideas further, beginning with Jane Bennet and her notions of vital materialism.

2.1 VITAL MATERIALISM

Jane Bennett, a professor of political theory and chair of the Department of Political Science at Johns Hopkins University in Baltimore, is one of the contemporary voices within 'New Materialism'. In *Vibrant Matter: a Political Ecology of Things*, Bennett argues that shifting focus

away from a default, human-centric viewpoint, and advocating for a “vitality of matter” can result in more ecologically sound and more materially sustainable modes of production and consumption. (Bennett 2010, x) To do so, Bennett leverages such foundational perspectives as Actor Network Theory, and Object Oriented Ontology. She draws from a wealth of theorists and scientists including Bruno Latour and Deleuze and Guattari, to apply the concepts of actors, agents and assemblage – concepts which, as an object-maker, I find useful in my work with materials. One of the appealing aspects to Jane Bennett’s vital materialism is indeed the applied nature of her theory. She illustrates specific examples that model how her ideas exist in the real world, and this material quality alongside the theoretical component is one of the reasons her work is relevant to me.

Thing-Power, Agents & Agency

Bennett describes matter, material and objects as lively, active ingredients, and argues that objects possess a vitalism called ‘thing-power,’ which is the “curious ability of inanimate things to animate, to act, to produce effects dramatic and subtle”. (Bennett 2010, 6) Thing-power means that matter, material, objects and things have the ability to act through their material properties. “If matter itself is lively, then not only is the difference between subjects and objects minimized, but the status of the shared materiality of all things is elevated”. (Bennett 2010, 13) Bennett’s statement inspires me to contemplate the fact that raw, earthly material, like rocks, are in a state of continuous movement and transformation, albeit at a very slow rate. I work with clay, a material that is ‘produced’ by volcanic activity and other natural forces of erosion over huge spans of time, the scale of which is far beyond human experience. “The landscape reels back into the millions and millions of years of geologic time”. (Flam and Smithson 1966, 105) By recognising that these raw materials have their own “material historicities”. (Barad 2014, 176) unrelated to humans, we are elevating their status and beginning to think outside a natural inclination or habit of seeing the world from the anthropocentric perspective. Karen Barad concurs with Bennett when she writes: “Matter is not little bits of nature, or a blank slate, surface, or site passively awaiting

signification... It does not require the mark of an external force like culture or history to complete it. Matter is always already an ongoing historicity". (Barad 2003, 821) When I work with clay, its material properties exert force, resisting my intentions. This is one of the ways the material is elevated beyond a mere subject.

Another vital materialist notion is the role of actants and agents. "The term [actant] is Bruno Latour's: an actant is a source of action that can be either human or nonhuman; it is that which has efficacy, can do things, has sufficient coherence to make a difference, produce effects, alter the course of events". (Bennett 2010, viii) And, in a 2009 interview with British professor Gulshan Khan, Bennett goes further to explain the relationship between actants and agency. "I don't say, then, that single, nonhuman actants are agents. I do say that agency itself is located in the complex interinvolvement of humans and multiple nonhuman actants, which together form an effective assemblage. So, an actant is any single force with the capacity to make a difference, and an agent is a more complex formation made up of a variety of actants". (Khan 2009, 102) This definition of agency is relevant to my approach of combining various materials and methods to produce outcomes that are emergent in the sense that they are often unexpected and unplanned. I am as much an actant as is the material and the process. Each step produces a site of intervention – a new set of circumstances – that calls me to act, by developing strategies, solving problems, taking the next step. For example, in *Tectonic Plates* I allowed the digital fabrication process to drive the aesthetic outcome, in the *Smooshes*, the clay's material properties had agency in the ceramic production, and in the *Slabs*, the firing process played a role in shaping the forms.

In line with Jane Bennett's definition, Karen Barad also describes agency as a 'doing' when she says: "Crucially, agency is a matter of intra-acting; it is an enactment, not something that someone or something has. It cannot be designated as an attribute of subjects or objects (as they do not pre-exist as such) It is not an attribute whatsoever. Agency is "doing" or "being" in its intra-activity". (Barad 2007, 178) I interpret this to mean the vitality is in the transformation of material – not the object per se, but rather what happens as it passes through stages of creation and

decay. Objects and material have an existence that endures whether or not it was intended by humans.

I see vital materialism as an interdisciplinary notion. To me, the idea of Bennett's 'lively matter' means that a thing is not locked into one single identity based on a function assigned to it by a human creator. So, clay is not only a geologic matter found in pockets under the earth, it is also an industrialized, plastic medium with which to form and produce objects for use by humans; through heat, it can chemically transform to become ceramic; it can become an object of value, bought and sold in a global value chain; it can then lose its value and be a ubiquitous item that everyone has. Clay's entanglements are complex and far-reaching, contributing to its material agency.

Through my work, I have discovered that my materials are not passive subjects, but rather, partners in creation. They challenge me physically – in terms of weight, size, equipment, cost, and in terms of logistics and expectation. And, in both *Tectonic Plates* and *Smooshes & Slabs*, the process drives the creation, to the extent that I make a point to erase the evidence of my engagement with the clay – my fingerprints, my deliberate cuts – as a way of representing the idea of process and form in a raw state. As maker, my presence is behind the scenes, in the sense that the work appears to be uncrafted and unintentional, as though it is making itself. I think this strategy is illustrative of Bennett's notion of relationships between objects and material that are outside of human intention.

Assemblage

Another parallel with vital materialist concepts is that of assemblage. A concept initially introduced by Deleuze and Guattari, but as defined by Bennett: "An 'assemblage' is an ad hoc grouping of an ontologically diverse range of actants, of vital materialities of various sorts. It is a vibrant, throbbing collective with an uneven topography". (Khan 2009, 92) The members of an assemblage then, do not continue to be identified as individuals, rather, they become participants within a new unified identity. "The effects generated by an assemblage are, rather, emergent

properties, emergent in that their ability to make something happen... is distinct from the sum of the vital force of each materiality considered alone". (Bennett 2010, 24)

My ceramic *Smooshes* are members of an assemblage, each piece entangled with its own individual properties and 'history' beyond the work it is now doing. The construction material speaks to its industrial past through its standardized, milled form; as does the ceramic, through its raw clayish aesthetic. The ceramic smoothes are not anything on their own (Figure 5) – they require the assemblage to make them relevant. The result is an unlikely union, an artistic assemblage constructed ad hoc of found bits and pieces and newly formed objects.



Figure 5. A *Smoosh* in production - apart from its assemblage

2.2 MATERIAL VERSUS MATERIALITY

As a maker of objects, I am attracted to the end product as well as the making process itself. Because I produce ceramic work that is both sculptural and functional, I feel there is an entanglement in my work with the study of material culture. As many of us do, I live in a world where my surroundings are laden with 'stuff' – clothes, computers, domestic things, food, etc. – objects not produced by me, rather, things that have been mass produced through industrial and digital processes. I am curious and interested in how things are made but some objects are so highly processed it is not obvious what they are made of and how. British anthropologist Tim Ingold, has written extensively about the maker's relationship to material and the process of making. In *Making*, Ingold explains the hylomorphic perspective: the traditional idea that material is inert and lifeless until the artist or maker projects form onto it. (Ingold 2013, 21) But Ingold rejects this perspective, arguing instead that form is emergent. "Making then, is a process of

correspondence: not the imposition of preconceived form on raw material substance, but the drawing out or bringing forth of potentials immanent in a world of becoming”. (ibid, 31) Tim Ingold expresses that no matter what material a maker works with, that material has inherent, natural properties that dictate what the outcome can or can't be. As per Jane Bennett's vital materialism, a maker or artist is an actant who must learn to work in partnership with the material's agency in order to achieve their desired outcome.

Coming from this passionate perspective, Ingold is critical of the study of material culture in that he contends that there is too much focus on materiality and not enough understanding or interest in material properties themselves. “For such studies take as their starting point a world of objects that has, as it were, already crystallized out from the fluxes of materials and their transformations. At this point materials appear to vanish, swallowed up by the very objects to which they have given birth”. (Ingold 2007, 9) He talks about the concept of materiality as just that – a concept – an abstract notion that is disengaged with material. The ‘idea’ of material but not material. “I can touch the rock, whether of a cave wall or of the ground underfoot, and can thereby gain a feel for what rock is like as a material. But I cannot touch the materiality of the rock. The surface of materiality, in short, is an illusion. We cannot touch it because it is not there”. (ibid, 7) He asks how this separation of mind and material has come about. (ibid, 1)

“...[M]ight we not learn more about the material composition of the inhabited world by engaging quite directly with the stuff we want to understand: by sawing logs, building a wall, knapping a stone or rowing a boat? Could not such engagement – working practically with materials – offer a more powerful procedure of discovery than an approach bent on the abstract analysis of things already made?”. (ibid, 9)

Tim Ingold's writing about making and material culture are relevant to me because in my work, I layer physical making and physical material with representations of making and representations of material. So, my work involves making but is also a depiction of making in sculptural form. Specifically, *Smooshes* express making as both a mental and physical process. Mental because the *Smoosh* is a representation of a physical act in progress. The action of transformation – the smooching – is produced into a ceramic object. It is a happening that is permanently frozen in

time, through the production process that I undertook, using clay hand building methods and assisted by jigs and kilns to transform the active clay smooth into a ceramic smooth form. And the viewer is left to contemplate the object as a static representation of a moment of activity. In *Tectonic Plates*, ore, a chunk of raw, earthly material is transformed into a replica, a representation of the original piece, produced through a process – an assemblage of steps. I depict the raw material in finished form, juxtaposing the unfinished versus the finished and the raw material versus the final product. The process generates the form and the aesthetic. Like a series of dance moves, the resulting work is a combination of my intent and my efforts, in partnership with the capacities of the process and/or the material itself. In this way, I am partnering with the process, which includes the various materials and their embedded properties, as well as the equipment and its limitations and opportunities.

2.3 MATERIAL AS METAPHOR

Another source of agency possessed by objects and material is ‘meaning’ which provides context. In her essay *Reading the Language of Objects*, Anna M. Fariello writes that objects and material ‘speak’ to us, and have meaning that can be ‘read’. Objects are a physical record – a document – of what happened to them by a maker or a process. And they stand as a metaphor, yielding insight into the human condition. (Fariello 2004, 149) “Creative objects made by humans play a significant role in culture, a role interwoven with complex relationships of meaning and value”. (ibid, 149) Fariello goes on to argue that being meaningful is one of the functions of an object “Thus the multiple functions of an object exist apart from its use and are made up of layered intangible meaning, rather than its physical properties alone”. (ibid, 165)

Further to this point is the distinction of object versus ‘thing’. In *Making*, Tim Ingold discusses how an object becomes a ‘thing’ when humans engage with it. “If objects are against us, things are with us... [t]o touch it, or to observe it, is to bring the movements of our own being into close and affective correspondence with those of its constituent materials”. (Ingold 2013, 85) Ian

Hodder continues with the same theme, arguing that humans and things are entangled with each other through their interdependence. “Entanglement Theory has developed from ‘thing theory’, which centered on the word ‘thing’ or ‘ting’, which in origin, in Old Frisian and Old English, means an assembly or parliament, as Olsen (2003) has noted. A thing or ting was a day or matter that brought people together. So, the focus on thing, as opposed to object or material, is on how things bring people together”. (Hodder 2011, 177) What I find significant is that the word ‘thing’ refers to an object that is understood by humans. So a ‘thing’ connects material to human culture. Jane Bennet concurs when she points out that the notion of ‘things’ is a human-centered perspective “...the materialities usually figured as inanimate objects, passive utilities, occasional interruptions or background context – figured, that is, in ways that give all the active, creative power to humans”. (Khan 2009, 92)

I work with various mediums that carry with them not only their own intrinsic material properties but also evidence of their connection to the natural world on one hand, and industrial processes on the other. For example, I work with clay which is a naturally occurring but industrialized medium, as well as construction project off-cuts like milled wood, newly purchased industrial raw materials like rope, strapping and fasteners. Physical markings and embedded properties record the experience materials have undergone, and create context for layers of meaning to emerge. “The materiality of objects conveys its own history... Every mark left on an object is a record of a decision made and an action taken by the hands that formed it”. (Fariello 2004, 151) The lines between living and non-living, past and present are blurred. In my work, I gain an understanding of the material behaviour of clay, through the creation of relationships between clay, myself, and other actants.

Like objects or things, raw materials can also contain significance because of the things they are made into. Let us not forget that as per Ingold, what a material can be made into is directly related to its material properties. Karen Barad emphasizes this point that meaning and material are not separate, rather they are co-constitutive. “Meaning is not an ideality; meaning is material. And matter isn’t what exists separately from meaning”. (Barad 2014,175) As further

echoed by Fariello, “In every medium, there is an underlying assumption that influences how we think about the thing made, colored by the value we place upon the material”. (Fariello 2004, 167)

To this end, I have chosen to work with clay because of its material properties and also because of its symbolic value. Clay has a rich history that connects its geological identity to human culture. It is a naturally occurring material found in deposits all over the world. Comprised of various minerals, clay is created through chemical and physical processes caused by volcanic activity. Clay not only comes from the earth, it is earth. Transforming raw clay into a permanent ceramic object is a technological process that has been practiced for millennia, discovered by early humans as a way of making containers and other objects. As Anna M. Fariello describes, a container was once necessary for survival and “may have been the most valuable possession a family could own”. (ibid, 156) As such, the container – the vessel, became celebrated through ritual, imbued with meaning and importance. (ibid)

Once known as white gold, porcelain is a white, fine-grained clay that was invented in China around 618-907 AD during the Tang Dynasty. Porcelain objects were of far superior quality to any other ceramic because they were delicate and strong, hence they were once extremely valuable and sought after for centuries by other countries. By the 1300’s, Chinese blue and white porcelain dishes, vases and figures (Figure 6) – arguably the



Figure 6. Examples Chinese porcelain vessels at the Gardiner Museum

first global commodities – were shipped around the world (Gardiner Museum) But things have changed. Today, ceramic objects are no longer special due to their exotic rarity. Quite the opposite, ceramic objects (particularly the mass produced type) have become abundant and ubiquitous, filling the shelves at second hand stores along with so much other ‘stuff’. However, this fall from grace seems relatively recent. As such, I argue that the ‘thingness’ of porcelain continues to symbolize value and beauty, by virtue of its entanglement with the tradition and

coveted status of being made into beautiful things. So, my interest in casting a rock in porcelain has to do with the contrast and the tensions between the concepts of value and beauty, of raw and finished, of heavy and delicate.

Creating something from dirt, turning chaos into order, making raw into finished, is profoundly satisfying to me. But more than that, in the same way that Anna Fariello considers a bowl as a symbol, or metaphor, for sustenance and even survival (Fariello 2004, 156), I see clay as a metaphor for land... land as resource, land as commodity. And through the transformative effects of firing, (an industrial process), clay becomes ceramic. In turn, I see ceramic as a metaphor for consumer culture. The objects I create are not just objects. They are also entangled with the context of their making which is key to my research approach.

2.4 ARTISTS OF INFLUENCE

There are many artists and designers that have influenced my journey but for the purpose of this paper I have selected three. These are Neil Brownsword, Cheryl Ann Thomas, and Anish Kapoor, whose works contribute to an understanding of the ideas I'm developing within my own project. One of the reasons I have chosen these three is because of the breadth of approach they offer. Brownsword and Thomas are both ceramists through-and-through, versus Anish Kapoor whose mediums are wide ranging. Brownsword works with ceramic detritus, making pieces that speak to an industry lost to the realities of advanced mechanisation and contemporary consumption; Thomas's 'failed' porcelain pieces manifest the creative agency of her process, and Kapoor's large, squeezed wax pieces speak of the value and beauty of raw material and process for its own sake.

Neil Brownsword

Brownsword is a British ceramist who grew up in Stoke-on-Trent, Staffordshire, England, which, at one time was a power house in the pottery production industry. Sadly, as is the

case for many towns built around single manufacturing industries, when the industry collapsed, so did the town. Many people lost their jobs to offshore companies whose investment in digital fabrication processes superseded the traditional manufacturing methods used in Stoke-on-Trent. Brownsword came from several generations of a family that made their living in the pottery manufacture, and he too began working in the industry at the age of 16, learning to make molds, and to produce ceramic objects for production. “Brownsword was among the last generation trained in the traditional hand skills that used to be the norm among workers at Wedgwood and Spode”. (Adamson 2008, 68) Years later, after studying ceramics at university, Brownsword became interested in pottery manufacture detritus – of which there is literally mountains left over from the once prosperous industry – and how this material stands as a document to a lost way of life. “Determined to capture the history and spirit of an industry facing extinction, Brownsword began collecting the detritus of the pottery-making process, obsessed less with the finished products themselves - too perfect and clinical in his eyes - but the off-cuts, the imperfections, those areas where the human hand prevailed and, perhaps, a sense of memory lingered”. (Gibson 2008, 30) He created an exhibition called *Poet of Residue* (Figure 7), where he collected and excavated such detritus and made assemblages of these bits and pieces which he glazed and fired. “It just got me questioning the notions of quality, and how we perceive what’s of value and what isn’t”. (ibid, 30) The work comments on, and explores the history and social experience of working in the city's pottery industry.



Figure 7. *Poet of Residue*
<https://thingnessofthings.wordpress.com/contributors-2/neil-brownsword/>

This project is incredibly compelling to me for many reasons: its direct reference to industry, to objects for sale, to ceramic as ‘thing’, to process as valuable. I relate to the social entanglement of industry and the idea of finished ceramic as raw material. I also feel akin to the ideas of displacement, in terms of how clay is extracted from the earth as a resource and turned into ceramic objects for sale, and painfully, how, due to high-tech manufacturing, pottery workers

are displaced by computers, and the huge piles of industrial refuse that accumulated over time stand symbolically in memorial. Simply stated by Neil Brownsword: “symbolically just looking at this kind of rubbish, it just mirrored the expenditure of people”. (ibid, 31) Furthermore, I liken these expansive heaps of industrial pottery waste to the aggregate and slag piles in Sudbury, the material that remains after blasting and mining. I like that the work makes use of bits of ceramic detritus as a raw material, that are excavated/mined, and made precious through glazing, firing and exhibition. And that, entangled within such unwanted, undesirable bits and shards, is a memory of previous life.

Cheryl Ann Thomas

Cheryl Ann Thomas is an American ceramist who works with porcelain and uses the coiling method to make large, extremely thin coiled columns that, when fired ‘fall’ in the kiln (Figure 8) She often fires two or three pieces together to cause them to fold into each other, creating delicate sculptures that resemble fabric. I include Cheryl Ann Thomas because to me, her work is quintessentially the result of a partnership with the material and the firing process. The forms that are generated are entirely out of her control



Figure 8. Cheryl Ann Thomas
<http://cherylannthomas.com/>

and happen by accident during the firing process. Generally, artists working with clay make every attempt to circumvent the warping and cracking that happens during firing or at best resign themselves to that inevitability. However, in the case of Cheryl Ann Thomas, her work literally depends upon the creative agency of the firing process. She has masterfully learned to leverage the inevitable effects of high temperature firing and the force of gravity.

I too have experienced the reshaping powers of the kiln on my work. The first slab piece I made was fired 'standing up' so that it wouldn't crack during firing, which was successful, but the piece felt stiff and lifeless. My attempt to make the folds look natural, instead, seemed mechanical and contrived. The next slab piece I made turned out a little too large to fit standing up in the kiln so it had to be fired horizontally. Naturally, it sagged and cracked, but beautifully so. The curves and the folds slumped in a graceful way, adding an authentic feeling of movement. Cheryl Ann Thomas' method inspires me to further 'let go' and be open to the failures – the cracking, the warping, the slumping.

Anish Kapoor: *Svayambh*

Anish Kapoor is famous for his monumental works of art, and the 2009 exhibition at the Royal Academy in London called *Svayambh* is no exception (Figure 9) Among other pieces of the same material, the exhibition consists of a massive 40-tonne block of red wax that is slowly



Figure 9. *Svayambh*
<http://anishkapoor.com/138/svayambh>

squeezed through a door opening by way of a rail system. The process converts the room into a container and the doorway into an extruding tool through which the wax is forced into a long, continuous, 3-dimensional log in the shape of the opening. On its way through, a mess of red, waxy residue leaves a trail along the floor and built up around the backside of the door frame. Undeniably, there is something simple and satisfying about the action of squishing a material, but the enormous scale of this piece makes it exciting and awe inspiring. There is also something subversive and naughty about making an enormous mess in a fancy, traditional space such is the Royal Academy. As Kapoor himself says: "These are the most incredible rooms perhaps in the world, never mind just London". (The Telegraph, 2009) I include *Svayambh* in this discussion as I see several parallels that inform my work. Kapoor's use of wax is akin to my use of clay as a raw material, along with the squishing action, the use of force via the

mechanism/the apparatus to create the action, the exhibition of process as final product/art. There is also the subversion of the expected and the use of scale to create meaning.

To summarize, the previous discussions have served to support my studio work, and help to frame my own creations within a broader theoretical and artistic context. Actants, agents, and assemblages, transformation of material, objects, raw and finished, industrial and human scale – are all themes in my work, entangled with meaning. In the chapters that follow, I will outline more entanglements in the form of methodological approaches and various methods that enhance my own understanding of my work and illuminate areas of further investigation.

Chapter 3

METHODOLOGY & METHODS

After the previous discussion which frames my theoretical assumptions, I want to discuss the methodological choices I made. Both are intrinsically linked, as theory informs methodology and vice versa.

3.1 PRACTICE-BASED

My over-arching research approach is practice-based and self-reflexive, since working with materials to make objects is my primary interest. As an artist, I have engaged physically with clay and other materials to experiment and learn about material properties and outcomes. Tim Ingold thinks of making as a “process of growth”. (Ingold 2013, 21) He says of the maker:

“Far from standing aloof, imposing his designs on a world that is ready and waiting to receive them, the most he can do is to intervene in worldly processes that are already going on, and which give rise to the forms of the living world that we see all around us – in plants and animals, in waves of water, snow and sand, in rocks and clouds – adding his own impetus to the forces and energies in play”. (ibid)

My process of discovery is very much as described by Ingold, in that as a maker, I am a participant, along with my chosen materials, empowered and/or constrained by the apparatus in which I have to work. Generally, my interest is to experiment with clay as a sculpture material and the production of ceramic as sculpture. An unpredictable material under the best circumstances, my exploration involves creating pieces that are on the larger side, stretching the limitations of what clay and ceramic ‘can’ do, and in turn, triggering questions about what the material is ‘meant’ to do and what it is ‘known’ to do.

In addition, I have identified two other methodological approaches, Diffraction and Bricolage, which feed into my practice-based research.

3.2 DIFFRACTION

I remember learning about the phenomenon of diffraction in high school physics class, characterised as a wave behaviour, like when sunlight passes through a prism and breaks into a spectrum of colours, or when water passes through an opening and breaks into waves. “Simply stated, diffraction has to do with the way waves combine when they overlap and the apparent bending and spreading of waves that occurs when waves encounter an obstruction. Diffraction can occur with any kind of wave: for example, water waves, sound waves and light waves all exhibit diffraction under the right conditions”. (Barad 2007, 74) Karen Barad explains how, as opposed to reflection which focuses on sameness, the concept of diffraction measures the effects of and “attends to the relational nature of difference”. (ibid, 72) My interest here is in how Barad employs diffraction as an analytical tool for research. She says: “Diffraction is also an apt metaphor for describing the methodological approach that I use for reading insights through one another in attending to and responding to the details and specificities of relations of difference and how they matter”. (ibid, 71) Diffraction as methodology is used extensively throughout the social sciences and the humanities.

Barad also points out that in quantum science, the apparatus used to measure diffraction is necessarily implicated/entangled with the creation of the effects of diffraction itself.

“So while it is true that diffraction apparatuses measure the effects of difference, even more profoundly they highlight, exhibit, and make evident the entangled structure of the changing and contingent ontology of the world, including the ontology of knowing. In fact diffraction not only brings the reality of entanglements to light, it is itself an entangled phenomenon”. (ibid, 73)

In hindsight, I realize that diffraction has been a methodological approach from the beginning of my work, which I used intuitively, applied not only to its understanding but also in its creation. I have developed two bodies of work (*Smooshes & Slabs*, and *Tectonic Plates*), and have worked on them somewhat simultaneously from the outset. As I worked on one, I would think about the other and vice versa. As such I have been constantly aware of how and if they relate, whether they speak

to each other, or whether I should abandon one entirely. Although time consuming, I see that developing two projects has allowed me to observe each through the lens of the other, which has been my approach all along. And by understanding how they differ, I can identify how they relate.

Tectonic Plates began with an idea directly inspired by my Sudbury-based experiences. My appreciation of the creative power of processes came through the work of attempting to materialize the original idea. On the contrary, *Smoosh Studies* started with the material (clay) and was furthered through the bricolage-style introduction of the materials at hand (collected wood pieces) The understanding emerged through the doing. I see these learning experiences as related to Barad's diffraction methodology in that I have been able to learn about the behavioural properties of clay through the production process and I have been able to learn about the production process through working with clay. The failures, the challenges, the opportunities and successes are likened to the highs and lows of diffraction waves.

3.3: BRICOLAGE

Bricolage is a concept originally introduced by Claude Lévi-Strauss in *The Savage Mind*, as "someone who works with his hands and uses devious means compared to those of a craftsman". (Lévi-Strauss 1962, 11) Bricolage was further developed as a valid form of scholarly research by Yvonna Lincoln and Norm Denzin in their *Handbook of Qualitative Research* published in 1994 and has since been written about extensively.

The bricoleur is a French word that "describes a handyman or handywoman who makes use of the tools available to complete a task". (Kincheloe 2001, 680) In *Adhocism*, architect Charles Jencks and Nathan Silver distinguish bricolage from engineering or science as one of

"... degree and intention rather than kind or quality. Both the bricoleur and the scientist are motivated by a search after truth and deal equally rigorously with facts. They are equally objective. Both have to make use of pre-existing subsystems, but while the scientist tries to expand his initial set or resources, the bricoleur sticks with his existing resources as long as he possibly can. The distinction is between appropriateness and urgency. The scientist is intent on using the tools and hypothesis appropriate to his job, whereas the bricoleur or adhocist is intent on undertaking his

job immediately, with whatever resources are available. Both are goal-oriented in a general way”. (Jencks and Silver 2009, 17)

Joe Kincheloe was a professor and Canada Research Chair in the Faculty of Education at McGill University. In his article *Describing the Bricolage: Conceptualizing a New Rigor in Qualitative Research*, he points out that bricolage was originally associated with an approach to problem solving in the practical world, but argues for a wider acceptance of the value of bricolage as an interdisciplinary methodology within scholarly research. He discusses how “[i]t is not uncommon for contemporary scholars in a particular discipline to report that they find more commonalities with individuals in different fields of study than they do with colleagues in their own disciplines. We occupy a scholarly world with faded disciplinary boundary lines”. (Kincheloe 2001, 683) From this perspective, I understand bricolage to be a fundamentally interdisciplinary approach where theoretical ideas from various disciplines can be assembled to create new meaning. “Thus, bricolage is concerned not only with multiple methods of inquiry but with diverse theoretical and philosophical notions of the various elements encountered in the research act”. (ibid, 682)

In my practice, the intent or desire is not to be entrenched in any particular field, yet that does not indicate a lack of rigour on my part, or focus in the work. In his article titled *Spatial Bricolage: The Art of Poetically Making Do*, Liverpool University professor Les Roberts, validates my position when he states: “The idea that research might be conducted under conditions of aimlessness and without a clear objective in mind does not necessarily mean that it lacks the rigours of ‘accomplishment and execution’ but that much of what is fashioned in the process is contingent on factors that cannot always be foreseen”. (Roberts 2018, 3) I see this perspective as open, which to me, means open to finding what there is to be found rather than looking for something specific from the outset. Furthermore, by crossing boundaries I can link ideas as they emerge through both practice and scholarly research, within the sciences, the humanities and the arts. Through this type of fusion, my practice is free to roam and remains open to discover new

meaning. Using bricolage as a methodology, I do not wait for the 'ideal' theory that will support my studio work, nor do I wait until my studio work is perfected to begin research. On the contrary, I make use of the knowledge and the skills I have at any given stage, and more importantly, allow them all to drive my research.

Bricolage as Method

Bricolage is a way of thinking and working I have employed for as long as I can remember. I would say that in my practice it serves as both a methodological approach as well as a practical method. Working as a creative in a small, remote city in northern Ontario, like Sudbury, means that design opportunities are few and have to be carved out. I have adapted by applying the bricolage method to my career, learning a wide range of skills from various domains that I synthesize to meet the needs of the job at hand. When I am presented with a design project, I enjoy (for the most part) the limitations imposed by the site, the requirements and even the budget, because they provide a set of constraints that unleash a playful creativity for me, as my mind sets about to solve the problem in the most efficient way within those constraints. I will often feel a drive to prove a concept or accomplish a step without taking time to find the absolute correct tools or materials. I accept and embrace limitations by deliberately incorporating them into the project, allowing 'problems' to become solutions. This method can be seen in my *Tectonic Plates* project, where the form and the aesthetic are as much dictated by what the equipment *could not* do as much as what it *could*. Many of the individual 'plates' exhibit very little 3-dimensional detail because the fabrication equipment I had access to (CNC router) was not capable of carving the file that I wanted. I could have found an external manufacturer with a machine that could have carved my rock as I originally envisioned. Or, I could have adjusted the carving by hand to make up for the loss of detail. However, I instead chose to view this technological limitation as valuable and allowed it to feed my concept. I learned something about the creative agency of process as a result. Another example of bricolage as method is in my *Smooshes & Slabs* work. Various pieces of discarded wood and metal along with other materials collected in a bricolage manner became

‘smooshing tools’ or forming tools and drivers of the project. In addition, my work in both projects was supported behind the scenes by a multitude of jigs and adhoc-built apparatus that aided in the production of my projects. From mechanisms to help me transport heavy loads to lever systems to increase production, my solutions to challenges are ever emerging through bricolage methods.

3.4 ASSEMBLAGE

In this section I will discuss the interdisciplinary nature of my work, positioned as art but employing craft mediums and referencing design. I approach this section bricolage-style, cobbling together relevant contextual background with musings on craft, and art.

I come from a design background; I studied architecture in the 1990s at Carleton University, which was then (and maybe still is), a very concept-driven school. Since then, I have worked across various design disciplines as an entrepreneur for over 20 years. I have been a graphic designer, web designer, furniture and interior designer. I make functional art objects, like lamps and stained glass windows. My approach to creative work has always been open and I have never seen myself as locked into any one particular discipline. One thing designers tend to do is spend a lot of time at the computer. But I am a materials person and an object maker, so in 2008 I started working with clay, an earthly, tactile material that is arguably the polar opposite to computer work. I took a hand building workshop from Sudbury artist Heather Topp, but I otherwise have no formal training in ceramics. However, one doesn’t need a formal education or a deep knowledge of the chemistry to know that ceramics is a material that has played a role in societies around the world, since early civilizations. I do not know of another material that is as deeply connected with the development of human culture and society as is clay and ceramic. So, it follows that just as clay is earth, so ceramic is culture. In this MFA work, my use of ceramic is a deliberate choice. By creating objects with ceramic, I am intentionally implicating material culture and drawing connections between earth and culture. Furthermore, within human culture, I see

ceramic as key to exploring my interest in exploiting the tension between (what I perceive as) the traditional expectation of ceramic, based on its history, and the role it plays today in contemporary western society, as hand-made ‘object d’art’ on the one hand and disposable stuff on the other.

Tectonic Plates is a series of porcelain castings that stack together to form a simulacra (to echo Jean Baudrillard) of a digitally reproduced rock. Each casting forms a functional – albeit oversized – platter, hence the play with the name ‘*Tectonic Plates*’. I intentionally enjoy the connections and the resulting ambiguity that comes from these juxtapositions. Where a rock, a piece of humble, earthly material is captured digitally and represented as a sculptural object, each slice presented on individual glass shelves like specimens... is it art or design? *Tectonic Plates* manages to straddle these boundaries, a piece that could easily be displayed in an art gallery, a design show or even a science center.

In terms of the larger art or design world, I cannot say that I definitively know where or how my work fits in. But I wish to briefly outline some parallels that I have uncovered during the course of my research and which I find relevant. Firstly, I mention the idea of conceptual ceramics. In her essay titled *Elastic/Expanding: Contemporary Conceptual Ceramics*, British professor Dr. Jo Dahn references conceptual art, developed in the 1960s as “practices where the art object had been ‘dematerialized.’ In other words, ideas occupied center stage and its material character, its “objecthood,” had become little more than a sign of the intellectual process from which it arose”. (Dahn, 2011, 158) Despite her point that “[t]he notion of dematerialization seems irreconcilable with the seemingly insistent materialism of ceramics”. (ibid, 153), she proceeds to draw the connection between clay or ceramic artists that employ dematerialization as a basis for their work, creating performative or otherwise boundary-breaking art using clay or ceramics that doesn’t result in pottery or sculpture. “Contemporary conceptual ceramics operates at the permeable boundary between art and craft, partaking of aspects of both and ultimately demonstrating (or performing) that permeability”. (ibid, 157)

My own work does relate to some aspects of conceptual art because of my focus on concept and the resulting ambiguity that acts to displace the work from having a solid place in

craft, design or art. However, my work might be too focused on the final object to sit squarely in this domain. I would possibly position my work more in line with post-conceptual art, where the aesthetic of the objects is entirely derived by the process and the concept.

Earlier in this paper I outline Jane Bennett's theoretical concept of assemblage, but assemblage is also an art form, initially coined by artist Jean Dubuffet in the 1950s as a category of 'Outsider art'. In line with Bennett's assemblage, this art form is loosely defined as a 3-dimensional collage where various found objects and mediums are combined in one unified piece. In a 1961 MoMA publication, William C. Seitz, author and co-curator of the exhibition titled *Art of the Assemblage*, wrote a comprehensive outline that not only describes the works showcased at the exhibition, but explains and defines assemblage as a legitimate form of art. He states that "[i]n thought provoking ways assemblage is poetic rather than realistic, for each constituent element can be transformed. Physical materials and their auras are transmuted into a new amalgam that both transcends and includes its parts...[w]hen the meanings of highly charged units impinge on a poetic as well as on a physical or visual level, significant expression becomes possible". (Seitz 1961, 83) Seitz goes on to say that the texture that results from use of found materials creates meaning, each piece expressing its own history and connotations. "When paper is soiled or lacerated, when cloth is worn stained, or torn, when wood is split, weathered, or patterned with peeling coats of paint, when metal is bent or rusted, they gain connotations which unmarked materials lack". (ibid, 83) What I find interesting about assemblage is the unexpected. Partly the necessarily quirky effects of unexpected compositions of colours, forms and textures, but also the emerging dynamism of the entanglements – the history, the meaning – associated with each piece of material. In terms of my own work, I would say that in particular my *Smooshes & Slabs* are aligned with the aesthetic of assemblage, as evidenced in the bricolage-style juxtaposition of 'new' ceramic pieces created by me, and found materials scavenged from various sources. The intention is to read the work as a whole, while simultaneously appreciating each material's individual identity. Furthermore, I might go so far as to say that the assemblage artist is also necessarily a bricoleur. The method and the output go hand in hand.

3.5 SCALE

I feel it necessary, at least briefly, to discuss the role that size and scale have played in my work, both conceptually and physically. What do I mean by ‘scale?’ A quick search in the Oxford dictionary reveals a number of definitions for the word – from fish scales and insects, to scaling of walls and skin conditions. But I come from an architectural background where, through a mathematical ratio, a large thing like a building can be conceived of and represented on a sheet of paper. Along those lines, I refer to the concept of scale as a relative dimension – a relationship where size is meaningless without the relation to another measure.

For geologists, aggregate is identified by particle size not for the mineral type, and clay is the smallest particle on the scale (Bott & Pye 2012, 2072) A grain, a pebble, a stone, a boulder... Similar through scales, their identity is relative. In *Chaos*, James Gleick explains how in the 1960s Benoit Mandelbrot coined the term fractal dimension as “a way of measuring qualities that have no clear definition: the degree of roughness or brokenness or irregularity in an object. A twisting coastline, for example, despite its immeasurability in terms of length, nevertheless has a certain characteristic degree of roughness”. (Gleick 1987, 98) I would consider the fractal nature of rocks – similarity through scales – as an inherent property of rocks. In my work, I have employed scale as a method to learn about the properties of material as well as the relative identity of an object.

Both my projects defy dimension in the sense that they are not representational of anything that has a specific size, or that can be compared in size to something familiar like the human body. In this way, my work is not anthropocentric and defies the idea of ‘thing’. Each piece could be representational of something that is smaller or larger. A rock can be a grain of sand, a boulder or a mountain, a *Smoosh* can be the size of a building. A change of scale can mean a change in identity of an object, in the sense of how we understand it. This idea is demonstrated in *Tectonic Plates*, where, through enlargement, the rock’s identity is shifted from a stone to a boulder.

Both projects have challenged me physically and logistically at every stage. Clay is a heavy material, so maneuvering large lumps of clay is difficult for one person without a custom studio set-up. Clay needs to dry evenly to avoid cracking, but my plates are wide, thin and susceptible to warping and my *Smooshes* are thick, and succumb to gravity. Working bigger means greater logistical challenges: more material, more cost, more time, space, work, and so on – necessitating the development of jigs and other solutions to adapt. Hence scale is not simply a mathematical ratio, I would argue scale is an actant in my work – a participant in the creation of a new entity, entangled with concept, design and production challenges.

3.6 FAILURE

Where is the line between failure and success? What is failure? Or at least, what is failure to me? In his essay *Judgement and Purpose*, Joel Fisher writes that “sometimes we view success as finished perfection – at other times as the perfectibility of growth”. (Fisher 1987, 116) Embracing failure is (for me) not only a frightening and difficult prospect, it is also confusing. Yet, I have set out to create two projects both of which have a high likelihood of failure.

Normally the goal with ceramics is to produce pieces that are beautifully crafted and that display a mastery over the material and the process. No cracks or warping, thin but not too thin, glaze applied properly, etc. But working with clay to produce finished ceramic pieces is a wildly unpredictable process at the best of times. Forming, drying, firing, glazing, firing again. The process is long and the final result only materializes at the end of many steps. A process where a myriad of factors affect the final results. The pieces may crack, the glaze might crawl. Success is never guaranteed. I have joked with colleagues many times over the last months that I may be presenting a pile of broken pieces for my MFA work. I laugh, but nervously. And I remind myself

that pushing the limits of the material as well as my own knowledge and abilities is the true intent of this work. By setting out an unlikely task, I use trial and error to learn along the way. After all, there are no tried and true ways to produce a *Smoosh*. No instructions, no YouTube videos to follow. To that end, I made the large *Smoosh* three times. After hours of work, and slowly drying for over a month, the first one that was fired exploded in the kiln. Failure! (Figure 10) And my other project, *Tectonic Plates*, was visited by



Figure 10. Failure!

failure/breakage at every stage. This degree of failure should not be surprising however, since attempting to produce wide, flat, thin shells in porcelain (the most fragile of clays) is not recommended by those who know better.

I feel it relevant to write about failure as a method because, although the looming possibility is ever present as I work, I find risk-taking to be a motivating force. And this creates a pressure, a squeezing, a smooshing, that propels me to try different tools and techniques, and to solve problems – bricolage-style – as they arise.

But then again, here I am writing about overcoming failure, when my real challenge is to know what failure is, and when and how to accept it. In addressing this point, in *Failure*, Lisa Le Feuvre writes that “[i]f perfection and idealism are satisfying, failure and doubt are engaging, driving us into the unknown. When divorced from a defeatist, disappointed or unsuccessful position, failure can be shifted away from being merely a category of judgement”. (Le Feuvre 2010, 17) My thought process involving some of the questions I tackle in my work, goes something like this: “Are cracks ok? Definitely, they are beautiful. But to what extent? What if the piece breaks in two? Can I work with that? Um, I don’t know.” And... I still don’t know. As Le Feuvre states “The inevitable gap between the intention and realization of an artwork makes

failure impossible to avoid. This very condition of art-making makes failure central to the complexities of artistic practice and its resonance with the surrounding world”. (ibid,12)

There are a number of areas in my studio work where I have made use of failure as an aesthetic. In *Tectonic Plates* for example, I allowed the incapacity of the CNC machine to dictate the formal output. In *Smooshes & Slabs*, the clay is allowed to crack and sag, surface markings are preserved, and glaze is applied in a loose manner, all of which contribute to a raw aesthetic. But this failure is planned, or at least expected. However, when I saw the extent to which my big *Smoosh* had broken in the kiln, I have to admit to feeling deflated, discouraged and disappointed. I was prepared for cracks, and even breakage to a point. It took a few days for me to ‘get over it’ and decide how to proceed. Failure can be difficult to accept. In the end, I chose not to work with the broken *Smoosh* and to make a new one. So, in this case I suppose failure to me was a question of degree, but the line is blurry. Further to this point, Karen Barad illustrates that, while diffraction illuminates differences, the boundaries that divide the areas of difference are not always clear. “Like the diffraction patterns illuminating the indefinite nature of boundaries—displaying shadows in “light” regions and bright spots in “dark” regions—the relation of the social and the scientific is a relation of “exteriority within.” This is not a static relationality but a doing—the enactment of boundaries—that always entails constitutive exclusions and therefore requisite questions of accountability”. (Barad 2003, 803) As a method in my work, failure is supported by my use of the methodology of diffraction as per Karen Barad, in that through the failures, the successes can not only be recognized, but also created. Echoed by Robert Smithson, when, in a 1969 interview, he states that “I’m equally interested in the failures of my work, and isolating them, as I am in the successes. In many ways it becomes very fascinating to investigate one’s incapacibilities as well as one’s capabilities”. (Flam and Smithson 1996, 209) This statement by Smithson resonates with me, and reminds me that failure represents a deeply personal entanglement of the journey that I am discovering.

MATERIALS

Besides their physical properties, I see materials as entangled with human culture. In the following section I will discuss my material choices – clay & ceramic, rocks and industrial detritus – illuminating how their physical properties connect to human culture and the relevance to my work. My intention is to develop a deeper understanding of the meaning and context that drives my interests.

4.1 CLAY & CERAMIC

I create form with clay but I produce objects with ceramic. At high temperatures, clay is permanently transformed into a new material – ceramic. There is no clay in ceramic. However, many people, particularly those who aren't ceramists, do not realize they are entirely different materials.

To the extent that it is informative to my thesis, in this section, I loosely explore both the geological origins of clay and the molecular-scale mechanics of how clay transforms into ceramic. Please note that it is not my intention to go in-depth on this scientific topic, as there are many factors and intricate technical details that are outside the scope of this thesis project. My intention however is simply to 'zoom in' in order to expose the material entanglements that connect clay as earth to ceramic as culture.

Clay is not soil. Rather, it is made of very fine particles of hard rock that has been decomposed into its component minerals – mostly silica, the most common element on earth. Pure clay is derived from granite but “[a]ll clays originate as deep-seated igneous or metamorphic rocks”. (Hamer 1977, 3) Hot magma pushes

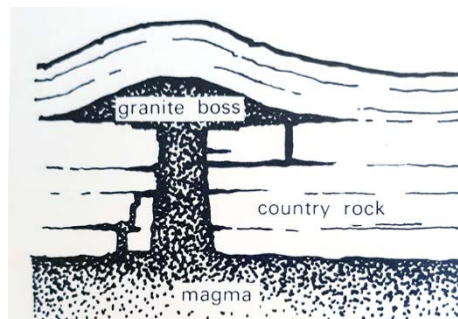


Fig 1. The creation of a granite boss where the hot magma is limited in upward movement.

Figure 11. Granite boss. (Hamer 1977, 3)

upward from below the earth's mantle but is blocked from escaping by a 'granite boss' – a layer of granite or other hard rock (Figure 11) Resulting gases trapped below the boss decompose the granite from a hard rock to a soft rock. This soft material derived from granite is pure clay known as kaolinite – which is what porcelain is made of. Parent rocks other than granite produce less pure clays. Pure clay crystals are flat, hexagonal shaped plates that stack in an orderly brick wall structure and are able to slide past each other when lubricated with water. This is what creates clay's workable properties (Figure 12) "A good clay also has the capacity to allow itself to be shaped by a reasonably slight pressure. This is the property of plasticity which is first appreciated as an ability to 'slide' under pressure. Plasticity allows the solid to be reformed without rupturing and allows the new form achieved to remain without any attempt to return to the original form". (ibid, 25) The smallest particles produce the most plastic clays, which is why porcelain is used to make delicate, finely detailed objects.

Raw clay direct from the earth is rarely pure and requires refinement to produce a balanced, workable material, and "[b]y refinement and classification it has become an expensive commodity". (ibid, 62) Although "[o]n occasions,

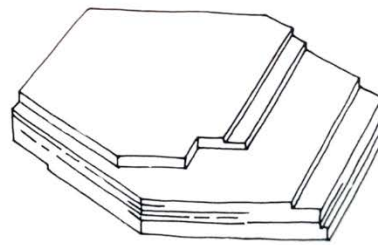


Fig 2. Clay crystal magnified 150,000 times.

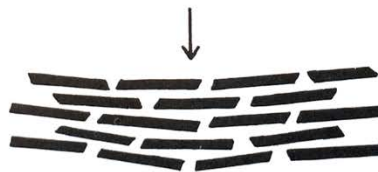


Fig 16. Bricklike structure resists direct pressure.

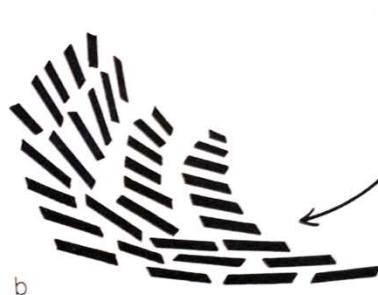


Fig 17. (a and b) Particles slide under sideways pressure and then hold their shape.



Figure 12. Relationship of clay's crystalline structure to its plastic properties. (Hamer 1977, 25)

nature fortuitously creates superfine kaolinites giving freak clays in isolated pockets. Such plastic china clay enabled the Chinese to produce their superb thrown porcelain”. (ibid, 6) Through the creation of ceramic objects, clay’s properties have been appropriated by human culture. This is one way the geology of clay is entangled in human culture.

Around the world, many early peoples discovered that when heated, clay would become rigid, similar to stone.

“The prevalence of a corded basketlike design on all early ware – whether in the Middle East, China, or the Americas – has led to the theory that baskets were first coated with clay to enable them to hold small, wild grain seeds. The accidental burning of one of these baskets led to the discovery that a clay vessel baked in the hot coals of the fire would become hard and suitable of such use”. (ibid, 2)

The earliest pottery was made in 10,000 B.C. in Japan, and has been in continuous use around the world ever since (Perryman 2004, 2)

The transformation from clay to ceramic occurs at the atomic level of the material during the firing process. At high temperatures, “atoms from one [clay] crystal will jump on to another nearby crystal and then back again. The atoms in some crystals, however, do not return to their original position, and gradually bridges of atoms are built between the crystals. Eventually, billions of such bridges are built and the collection of crystals has become something more like a single continuous mass”. (Miodownik 2013, 205)

Once clay is fired, the ceramic state is permanent. A ceramic object can break into pieces and no longer be that thing (a cup, a vase, etc), but the ceramic itself will never degrade, rot or change states, nor is it recyclable like metal. This permanence is why ceramic has served as an archival document of human culture through the ages. Skin and bones decay but ceramic objects and shards have helped archaeologists uncover and read the story of early human activity. It is not lost on me that my work plays with shifting notions of permanence and fragility. For example, in *Tectonic Plates*, the rock is cast in porcelain, itself a material made of small rocks. Permanent as a ceramic material, but breakable as an object, once fired, the piece of ore is made fragile. In the *Smoosh* pieces, the action of transformation – a moment in time – is made permanent through

firing. The *Smoosh* represents the first stage in a process, before a finished object is created, when the material is still raw. I want to see the raw clay in the ceramic, so I leave the cracks and texture that result from my process. The plastic properties of the wet clay afford the squishing action, however, the difficulty – or reality – is that the same properties do not (readily) afford the production of this *Smoosh* form into ceramic. Once squished, the wet clay continues to shift, subject to the forces of gravity and shrinkage as it dries. The element of time and force of gravity become actants in the assemblage. I need to strategize to support the heavy mass and control the drying by hollowing out the interior. Skill and labour on my part are required to offset these relentless forces. The rough state of the fired clay is a deliberate rejection of the idea of the ‘finished’ object or the consumable product. Yet, after firing, the ceramic is glazed with a shiny, vitrified glaze, a nod to pottery that deliberately confuses the expectations of raw and finished.

The geological origin of clay and its chemical transformation into ceramic are epic and magical creation stories that unfold outside of human intervention or experience. The massive, earthly scale of geological formations and the atomic level of chemical transformations, are the very properties entangled in ceramic’s ability to be a useful and meaningful cultural material. However random and unintended, raw materials like clay that are produced by the earth, have impacted the development of human culture. Ceramic, the permanently altered state of fired clay, is an example of the material effects produced, in turn, by human culture.

4.2 ROCKS

Why a rock? What could be more real than a rock? More permanent? More invulnerable? Yet what could be more commonplace, more humble, more overlooked? A rock is as significant as a mountain or as common as a grain of sand – similar through scales, they are different depending on one’s perspective, but not one more exceptional than the other.

Through an intensive process that combined digital and handmade methods, – I re-envisioned a rock – an ordinary rock – in a much larger format. The fractal nature of rocks means a shift in scales leads to a shift in identity, or how it is perceived: hence the rock becomes a boulder. Crafted into a fine material and put on display, I have appropriated the rock, further displacing its identity from a semblance of itself as a raw material to become a work of art – a product of culture. Yet through representation, this art-rock is instantly recognisable as a rock and thus remains entangled with all rocks.

My house in Sudbury is built directly on rock, a piece of Cambrian shield, that is exposed in the basement. This is not unusual however. Many Sudbury homes that were built before the days of economic and controlled blasting technology have rock in their basement. But mine is special, as, not only has it been a source of rock climbing fun for kids, it has been written about in poetry. The previous owner of my house was the late Robert Dickson, a governor general award winning francophone poet from northern Ontario, who hosted many creative writing sessions in the 70s and 80s. Reflected in a poem (untitled) written by friend and fellow poet Patrice Desbiens, the lines “La grosse roche noire sous la maison de Robert Dickson est encore enceinte de sainte poésie. On ne connaît pas le père”. (Desbiens 2008, 30) roughly translates to: “The big black rock under Robert Dickson’s house is still pregnant with divine poetry. We do not know the father.” Many such poems were written at and about the house, as it was an important cultural location at the time, serving as a hub for francophone writers, poets and musicians to gather and collaborate. As a result of this poem and the cultural happenings that it was witness to, this particular rock (in my basement) is entangled within northern Ontario’s francophone culture.

Where one speaks from, is as important as who is speaking. The location of the scientist, artist, or intellectual matters, and these locations or places partly frame the way we think, and create. Having spent over 40 years of my life in Sudbury, where rocks are everywhere, informs who I am as an artist and a designer. My personal location in Sudbury, therefore, is entangled with rocks, their extraction and commodification. And that specific location informs my reflections on

material, commodity and detritus. Sudbury is also located at the margins, the periphery, compared to Toronto which represents the core. Interestingly, my migration to Toronto a couple of years ago, created an opportunity to further dissect the concept of displacement from a physical and philosophical standpoint. Otherwise said, my cultural identity is rooted in the rocks and rocky landscape of Sudbury (Figure 13), and that rootedness is not static, but dynamic; it is constraining as much as it is enabling.



Figure 13. A rock face in Sudbury

4.3 INDUSTRIAL DETRITUS

Although based around the creation of ceramic pieces, both *Tectonic Plates* and *Smooshes & Slabs* make use of other materials or apparatus to give context. Smooshing clay requires a tool that can force the material to react, and, since I wanted to work at a larger scale I had to think about my clay squishing tools. Riding the streetcar back and forth to school, I asked myself: should my *Smooshes* be on rooftops? Should they flop over railings or chairs or be squeezed between flower pots? Although these are possibilities I may experiment with at a later time, for this project, I chose to use off-cuts of materials from actual construction projects – mainly chunks of wood because that is what I could access – but industrial-scale material nonetheless. Material that speaks to industry because it has been milled or processed but that remains raw to an extent that it is not in a finished format. In the same way that plywood is a standardized product-for-sale, but also a raw material, versus a chair which is already a ‘thing’. Hence, I chose pieces that were once part of a larger whole, plucked from an original intent and discarded. For example, my big *Smoosh* is made with two off-cuts of CLT (cross laminated

timber) that I salvaged from the construction of the McEwen School of Architecture in Sudbury. These pieces have significance to me for a few reasons. You see, aside from rocks and mining, the other prominent resource-based industry in the North, is wood and forestry. In 2013, Laurentian University opened the first new school of architecture in Canada in 45 years. Their curriculum's niche is design/build, focussed on developing expertise in wood-based design. This is timely since, in 2015 the Ontario government changed the building code to increase allowable heights for wood-frame construction (www.ontario.ca/buildingcode) Cross laminated timber (CLT) is an engineered mass wood product that is structural. It is manufactured from lengths of solid wood where, similar to plywood, the direction of the wood grain alternates from layer to layer, making it strong. These entanglements interest me and the massive properties of the CLT pieces afford the role of squishing tool. I find it interesting to consider the existence of discarded material. Whether it remains laying in a pile somewhere or is reused in an art project, is simply a part of that material's history. And my work is giving discarded pieces a new life as sculpture.

Chapter 5

PROCESSES

Up to this point, I have discussed ‘around’ the work in terms of the experiences, interests and theories that are entangled in its conception and creation. But I have yet to discuss what the work is and how it was made. Hence, this section outlines what I did to produce this MFA work. I explain the various processes, tools and other production-oriented choices that I made along the way. And in particular, I point out the challenges that in many ways drove the projects.

5.1 *SMOOSHES*



Figure 14. “Smoosh Studies,” 2017. Photo by Tom Feiler

Smoosh Studies (Figure 14) are quirky assemblages of ceramic, wood and twine. I made the first *Smoosh Studies* in spring 2017. I did not have a plan. I just wanted to squish some clay with various materials and see what would happen.

The OCADU woodshop is a veritable gold mine of interesting off-cuts from student projects. In the bricolage manner in which I work, I saw these pieces as having potential for something creative or useful. Certainly, bits of wood are always handy to have in a studio as shims, risers, supports, etc. But beyond their potential utility, there was something precious about these discarded objects. Once part of student projects, they seemed filled with energy and intention, like jewels that had been milled, marked, turned and laminated; not to mention such quality woods as black walnut and solid maple. I hated to see them thrown away.

5.11 SMALL *SMOOSHES*

In fact, my first *Smoosh Studies* were made using these small pieces of wood as clay squishing tools. The clay and the wood enter into a relationship when the wood squeezes the clay causing it to escape and squeeze out the sides. Forms produced are related to the shape of the tool and the moisture content in the clay. A drier clay produces a reluctant *Smoosh* with lots of cracks and stretch marks. A wet clay is more accepting. Once the desired *Smoosh* is achieved, the next steps are to produce ceramic.

The *Smoosh* and wood are de-assembled (Figure 15) so that the clay can dry and be bisque fired. I then glaze the bisqued ceramic pieces with glossy, vitrified glazes, that to me, speak of consumer goods. Once complete, the ceramic *Smoosh* objects are reunited with their wooden counterparts. I bring other materials into play as well – like twine and other fasteners – to partner with the clay and the wood pieces, completing the pretence of force and action. The resulting narrative is a snapshot. A moment in time permanently frozen during a transformative process.



Figure 15. *Smooshes* are de-assembled to dry

5.12 BIG SMOOSHES

One of the interesting aspects of the small *Smoosh Studies* is their apparent scaleless-ness which lends a playful and quirky aesthetic. By this I mean they seem like maquettes that are intended to be bigger than they actually are. The wood pieces feel architectural in scale and the twine feels like oversized rope. This inspired me to attempt to produce them at an architectural scale, where the squishing tools have enough weight to produce force and the clay is the maximum size that I can fit in the kiln.

For the large-scale *Smoosh*, I used about 100lbs of clay, and as squishing tools, I used two off-cuts of CLT (cross laminated timber) that I had in my possession from the construction of the McEwen school of architecture in Sudbury. Not surprisingly these pieces used to smooch the clay were not originally intended as clay smooching tools but they functioned well. Their weight is not beyond my ability to lift them but they are heavy enough that the experience of working with them got me feeling like we were partners. Were they my tools or was I their tool in the creation of the relationship with the clay? I think the answer is 'yes' in that both are true depending on one's perspective. Like a machine, I acted to lift the wood and drop its mass onto the clay (Figure 16) To the clay, the wood is the tool, but to the wood, the tool is me.



Figure 16. The smooching process

Smooshing the clay is the easy part. Producing a *Smoosh* in ceramic has proven to be more challenging. I want the final result to have the visual effect of solid clay, however drying and firing such a piece is not possible – at least not with the resources I have at OCADU. I chose to strategize to cut open the *Smoosh* and hollow out the form. As I mentioned in the *Failure* section, I made three different attempts. The first attempt was a proof-of-concept, in that I experimented with my technique of hollowing out the form. However, it became clear that I would start over. The second piece was bisque fired but exploded in the kiln because of trapped moisture within the clay that couldn't escape (Figure 10) I sought out advice at this point from various professionals, including the technician, a professor, a couple of classmates and the owner of the pottery supply house from which the clay was purchased. My first two pieces were made with a clay called 'bright white' which is a fine clay. But as a result of my inquiries, for the third piece I tried a different clay, called 'sculpture clay,' which is a rougher material that contains more 'grogg' (larger granules), is more plastic, and less likely to fall apart. The other thing I did was change my technique. My first two pieces were hollowed out while the clay was still very soft. I did it gradually but this resulted in too much



Figure 17. Cutting, hollowing, reassembling

handling, which changed the shape more than I liked and recorded too many bumps, bruises and fingerprints. In my third attempt, I let the clay dry a fair bit which had the advantage of preserving the form, but made the piece difficult to hollow out. I tried and dulled several hand saws and ended up using my electric reciprocating saw to cut the smooch in four manageable pieces. I then hollowed them out precisely and fused them back together (Figure 17)

5.2 SLABS

Creating a slab out of clay is not so different from rolling out pie dough. In that I roll out a large block of clay into a huge slab and proceed to create a jig using dowels and tubes around which I curl the slab for support as it dries (Figure 18) The *Slabs* are then fired and reassembled with other materials to complete the pretence of active formation. I made two large slab pieces both of which, similar to Cheryl Ann Thomas' work, were further altered in the kiln. The folds and curves that I had formed in my jigs were stiff and felt contrived to me. But the intense heat of the firing caused the forms to warp, giving a more natural shape that seems to capture movement.



Figure 18. Forming a slab

Glaze is an important aspect to my pieces, or at least being glazed at all is important, because to me, glaze stands a visual cue that speaks to the expected idea of 'the finished object' and ceramic as a consumer product. Arguably the most difficult part, due to its unpredictable nature, there is a world of knowledge to gain about glazing. Getting it right requires a lot of testing

and patience, and, in the scope of this master's degree I don't have the resources to experiment as much as I need to. Hence, for the most part, I chose to keep my glazing simple, and my colour palette plain, playing with glossy versus matte, finished versus unfinished surface treatments. I selected a clear glaze for the interior of the *Tectonic Plates* and white glaze for the *Smooshes*. I've chosen to place this small commentary about glazing here under *Slabs* because I struggled the most with glazing the *Slabs*. I envisioned partial glazing and considered a number of options – dipping the piece and letting the depth of the glaze in the bucket determine the portion of the piece that gets glazed; pouring glaze into the valleys of the folds; dipping a little here and there. In the end I chose to paint one side – the inside – leaving the outside as the naked clay body. Even though I was open to messy, or an otherwise failed result, my first attempt on my two slab pieces was unsatisfactory – the glaze was too thin, almost non-existent, so I chose to reglaze, and in doing so, I introduced a little blue as a nod to China's famous blue and white glaze (Figure 19) In the future, I envision more experimentation with bolder choices and their effect on the concept.



Figure 19. Slab with blue and white glaze

5.3 SLICES: *TECTONIC PLATES*

Tectonic Plates is a porcelain boulder made of 16 horizontal slices that, when stacked, form an enlarged replica of an original piece of Sudbury ore (Figure 20) With this work, I was interested in experimenting with process as much as with



Figure 20. *Tectonic Plates* in progress

material. I was curious to investigate the relationship of digital and robotic processes to hand-made methods. I had the idea to clone a rock, enlarge it and cast it as a boulder in porcelain, juxtaposing the identity of the original object – a chunk of Sudbury ore, with the symbolic meaning of the material – porcelain.

5.3.1 DIGITAL PROCESSES

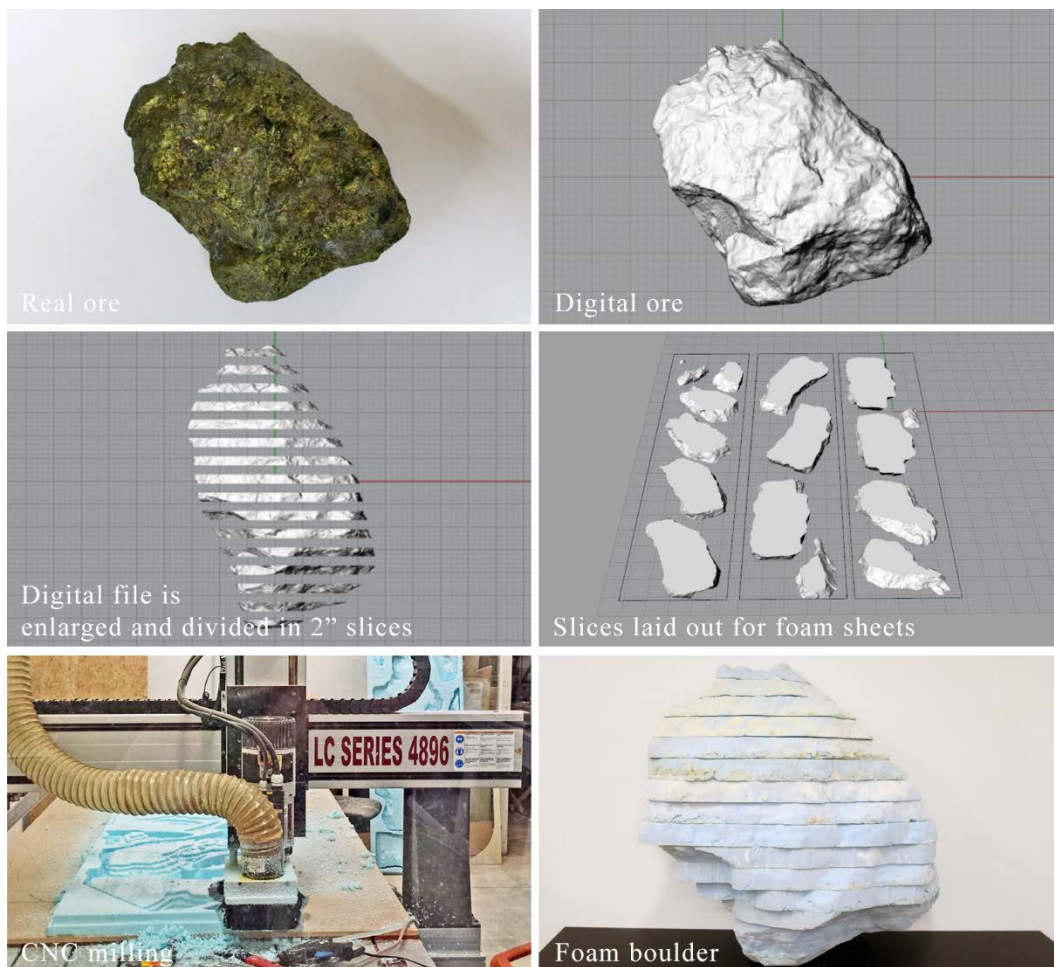


Figure 21. Digital process

My interest here actually began before my Master's Degree when I was making rock shaped vessels. At the time, I was attempting to mimic small-scale versions of rock faces by using

slabs of clay and building the form as one would build an architectural model. But I was thinking that my process would benefit from the use of digital tools to capture actual landscape and output the data into molds for casting. So this is essentially what I did: I had a small rock 3D scanned, I enlarged the scanned file within the 3D software program, Rhinoceros, and output that file via CNC router (a computer-driven carving tool) into blue construction foam (Figure 21) I then cast the pieces of foam into plaster, making molds for porcelain.

From the beginning of this project, I have made concessions to work with the limitations of what I had access to – be it equipment, knowledge or finances. With regards to equipment, at OCADU we have a 3-axis CNC router, which means it cuts in the x, y, and, to a limited capacity, the z axis. Its strength is in cutting 2-dimensional forms and 3D texture with accuracy. There are other CNC machines that can cut in 5-axis meaning they have more flexibility to carve a 3D object. Using CNC machines is also costly, so from the beginning of the project I had to design my boulder to output into a material that I could afford to have processed, on the CNC I had access to. It was recommended that I use blue construction foam – not too expensive and easy to carve. So that meant I had to divide my digital rock file into a series of 2” slices that were 23 inches at the widest point to fit on the foam sheet as well as in the kiln. The other limitation is that the 3-axis CNC does not cut undercuts. Hence, wherever it encounters undercuts in the file (of which there are many), it just cuts straight up and down. This loss of data is clearly visible in the final product (Figure



Figure 22. Loss of detail on the left as indicated by vertical cutting

22) but I saw these kinds of issues as a potentially interesting aspect of the final product so I went with it and allowed it to feed my concept.

5.3.2 HAND MADE PROCESSES

Once my foams were made, the next step was to cast the negatives using pottery plaster with the intent to slip cast each individual slice in porcelain (Figure 23) 'Slip' is a term for liquid clay that is formulated specifically for casting, and plaster serves to wick away moisture, making it the ideal casting medium for clay. My boulder is made of 16 individual slices, so I made 16 plaster molds.



Figure 23. Left: setting up to pour a plaster mold. Right: Some plaster molds

5.3.3 CERAMIC SLIP CASTING



Figure 24. Slip casting process

This was my first time attempting the slip casting method, and my first time using porcelain. Porcelain is very smooth and is what fine China is made from. But it is a very finicky material to work with because the fine grain means it tends to crack very easily. The way slip casting works is that each plaster mold is filled to the brim with slip/liquid clay (Figure 24) After a pre-determined amount of time (for which I did many tests), the slip is poured out of the mold. The plaster absorbs water so what is left is a shell – a porcelain coating on the plaster. As the moisture continues to be absorbed, the clay shrinks and pulls itself away from the plaster and can be removed once it is sufficiently dry. The bigger pieces in particular are difficult to manage because of their fragility and I had many cracked pieces. Early in the process I made paper clay by adding toilet paper to my slip, using a hand-held immersion blender to create a smooth, watery slurry. Fibres of all sorts can be added to clay and help to strengthen the bonding during the



Figure 25. A simple lever system

production process and the paper burns away during firing. This changed the game and I was able to successfully cast all of the sections, transport them to the ceramic studio and have them fired. I had a few casualties along the way, but for the most part the paper clay was the solution. However, the downside was, despite my best efforts, the paper clay is lumpy and made for more work in the finishing end of the process.

Another challenge I should mention was the weight of the plaster molds, especially once full of liquid clay. There was no possibility that I could lift them, and since I was casting so many it was also not an option to enlist ongoing assistance from a colleague. To overcome this problem, I devised a simple lever system (Figure 25), bricolage-style, using a milk crate, door hinges and miscellaneous pieces of wood, to allow me to manage the molds myself. The result was a sort of rudimentary production line.

CONCLUSION

I came into OCADU's Interdisciplinary Art Media and Design (IAMD) program with concepts and ideas rooted in Sudbury's rocky landscape, inspired by my observations about industry and consumerism, and motivated by my interest in clay as an artistic medium. I didn't have a definitive plan for what my practice-based research would entail, rather, I was interested to allow the process of discovery lead the direction of my work. Which, as Tim Ingold points out, is the very nature of creative making when he says that, "...even if the maker has a form in mind, it is not this form that creates the work. It is the engagement with materials". (Ingold 2013, 22) Early in this paper, I questioned what the outcomes might be if a material's natural properties along with the early steps in a process were the finished product in itself. And, what it means when the material and the process are active participants – partners – in creation. Exploring these questions involved engagement with materials, juxtaposing their varying raw and finished states to create art objects, that I feel, stand as answers to these questions. My studio work consisted of working with clay and exploring some foundational hand-building methods that started with lumps or slabs, as well as slip casting. I worked at a larger scale so that I could learn more about the limits of the material and how to produce larger ceramic pieces. In doing so, I gained a deeper understanding of the relationship between the artist and the material as, once I started the making, the reality of working with the materials – the digital files, the foam, the plaster, the clay, the wood, the glass – in terms of their numerous, individual and combined agencies – material properties, cost, equipment, knowledge, schedules, space etc. created both barriers and opportunities that took power over my projects, simultaneously constraining and enabling me. Through a theoretical framework informed by Jane Bennett, Karen Barad and Tim Ingold, I learned to fine-tune my senses to the creative agency possessed by these materials and the processes I set in motion, allowing them to influence the outcome. Hence, my initial ideas became more about adapting to

the circumstances, sometimes letting go of my intentions altogether and sometimes trying different techniques to overcome obstacles. But this is the nature of experimentation and practice-based research.

Developed in parallel with each other, my studio work was enhanced through the research and writing of the paper, and the writing, in turn, was informed and enriched by the physical making of the work. This diffractive practice enabled me to create a narrative connecting material to various cultural entanglements and vice versa, as is demonstrated in the results of the unlikely assemblage of materials and processes that is at the core of my studio work. The objects I've made tell a story about physical forces, interactions and displacement. But what is interesting (to me) are the cultural entanglements that provide meaningful context for these abstractions, allowing one to contemplate these forces as metaphor. And, like the vestiges of physical interventions on my pieces, so these entanglements are marks created by me, as manifest in my *Smooshes, Slabs & Slices*.

I assembled this paper in a bricolage manner, gleaning from various disciplines I considered to be relevant and interesting, in order to shed light on my studio work. Although I acknowledge that none of the topics I address are as deeply considered as they have the potential to be, my approach was to cast a wide net in order to open lines of inquiry. It was also my intention with this approach to illustrate the notion of entanglements, the notion that my work, (and I will claim that any work) can be considered from a variety of perspectives, be that perspective a shift in scale, location, materiality, or culture. What lens one chooses (or apparatus as Karen Barad would say) changes the perceived outcome. Do you want to look through a microscope or a telescope? Is the question asked through a philosophical lens or a scientific one? Further to this point, one could say that ceramic is a cultural material associated with anthropology and/or a crystalline structure associated with chemistry. Both are true. To this end, there are any number of ways to reflect on a work of art once it is made. As its creator, my work necessarily stands as a document entangled with who I am, but the power of art is its ability to engage the viewer to project, to make connections, and to read through their own lens. Will you judge my

work as a ceramist, an artist or a geologist? But I do not have that luxury, as I can only understand the work from my own perspective, as the maker, the conceiver, the artist. In academia, domains are very separate and the notion of interdisciplinarity seems to be almost radical. That being said, crossing boundaries as a method of unifying disciplines follows along with my overall theme of indulging the ambiguous. And I feel that due to its assemblage nature of tying together New Materialism theories, geological observations, and ceramic methods, interdisciplinarity is an area to which my work – both the written and the studio work – makes a contribution. Furthermore, my experiments with combining digital and manual processes along with my bold choice of scales contribute to the field of ceramics.

From a young age, I had an interest in materials and tools, and an aptitude for building and putting things together. I studied architecture at university and have made a living as a designer in Sudbury, working across several disciplines for over 20 years. But like many designers, I spend much of my time sitting at a computer, thinking through solutions in the digital realm rather than working directly with materials. There's nothing wrong with this, but maybe I feel that computer-based lifestyles have the effect of distancing us physically and mentally from making, and ultimately, from what is real. Mechanical and digital forms of production mean that people don't need to make things, repair things, or have any physical contact with material or the processes involved in making. Store shelves are full of highly processed products – clothing, food, etc. where evidence of manufacturing and materiality is extremely abstract. And there is even less of a connection to the mega industries that harvest the world's natural resources to create these objects, not to mention the question of what happens to their materiality once they are discarded. Hence, if people are disconnected from the concept of making, maybe it's simply not an experience they have exposure to. Out of sight, out of mind so to speak.

At times, I admit to finding myself resentful of the 'designed' object which I see as 'too perfect' and devoid of expression of materiality and making. As an antidote to this frustration, in 2008 I started working with clay, a low-tech material that requires patience and that can not be controlled with the click of a mouse. The ultimate earthly material, clay is not just 'of the land' it

literally is land. While I do not presume to think my work, at this time and in its current state, has much to say of importance in the world, I think there is potential, and that I'd like to work toward that. I am interested to think deeper about how to employ material and action as metaphors to further expose and celebrate the connection between land and product, land and culture, land and identity.

In conclusion, I will summarize by mentioning that I have come a long way in my technical abilities of manipulating clay at a larger scale, not to mention the digital and mold making expertise I now have. Additionally, practice-led, scholarly research around New Materialism and Thinking Through Making, has provided a framework for how to think critically about the work I am doing. I have learned about how, as an artist, I engage with a material's properties that exert agency that direct my actions. The breadth of knowledge and experience I have gained during my time at OCADU has set me up to continue this interesting work.

6.1 POST SCRIPT

I knew it would happen.

Finally seeing my pieces installed in a gallery setting would not only trigger a satisfying and profound sense of completion, but would allow me to experience and interpret what I've been creating from a new perspective. Working with ceramics is like that. Before firing, the pieces are too fragile to handle, and then through firing they change so much due to shrinkage, cracking and glazing, that it's impossible to predict what the results will be. Hence, up until the gallery was installed, I could only imagine what the pieces would look like and how they would speak to each other. Most came together near the end, right before the install date. It was near to the last minute when I had the idea to hang the two *Big Slabs* from the wall. Previously, I had envisioned a more involved assemblage for them with ropes and tubes, but once glazed and out of the kiln, I had to really think about what they wanted to be. Similarly, the display strategy for *Folds and a Meteor (aka Danger!)* also emerged at the last minute. I originally planned to make a steel 'swing' and hang it from the ceiling, but OCAD's graduate gallery doesn't have a mechanism for suspending anything with any weight. I considered not showing that



Figure 26. *Folds and a Meteor (aka Danger!)* in progress

piece at all until it occurred to me to try this... (see Figure 26) *Tectonic Plates* didn't come together until 3 days before the exhibition when I completed the glass étagère that I had designed and built in partnership with John Diessel in the OCAD metal and wood shops (thanks John!) The choice to install a process room in addition to the gallery was also a decision that emerged just before the install date. The opportunity to make use of the space was there and I felt the videos would be entertaining and provide insight into my work. Needless to say, creating the exhibition

was a whole other project, one where, (to follow the message in this paper), my finished pieces became raw material for a new product – a spatial experience – an assemblage – that implicated elements of the gallery in terms of its walls, plinths, floors and space to encourage contemplation around what is raw and what is finished.

One final note. Gordon Thompson who is a potter and head of Sheridan College's ceramics department served as the external committee member on my MFA defense panel. He very cleverly pointed out that my exhibition should be titled *Smooshes, 'Slumps' and Slices* – rather than *Smooshes, 'Slabs' and Slices*. I completely concur, and if/when I install this show again, the name will be changed. Thanks Gordon!

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Appendix A

GLOSSARY OF TERMS

Assemblage:

Jane Bennett borrows Deleuze & Guattari's notion of assemblage in that an assemblage is an entity made of a collective that come together to form a whole. Sometimes the individual elements are more obvious than others. Like Jane Bennett's assemblage and Jean Dubuffet's assemblage art as a sort of 3d collage that combines found objects, I employ assemblage to describe my work in that the ceramic elements are members of a collective and depend on that collective to provide context and meaning. None of the ceramic pieces are meaningful or even displayable without the other members of the assemblage. The assemblage elements consist of found objects that interact with the ceramic sculptures. Sometimes even the gallery is implicated in the assemblage, like in the piece I call *Folds and a Meteor (aka Danger!)* (Figure 35).

Bricolage:

This French term refers to someone who accomplishes a task by using tools/materials/resources that are readily at hand, rather than seeking out the ideal. I use Bricolage as both a methodology and a method because I relate to it as a way that I approach my work and my overall aesthetic style.

Clay and Ceramic:

Clay is a geologic material comprised of various minerals. Although clay occurs naturally in pockets in the earth, the clay I use is industrially processed to a formulaic standard. Clay remains clay until it is fired to become ceramic.

Ceramic is a permanent material made by firing clay to a high temperature causing the atomic structure of clay crystals to displace and create a permanent, homogenous matrix. For this reason, I intentionally make a distinction between clay and ceramic throughout my paper.

Craft:

There are certain materials and practices that are traditionally/historically known as craft practices. Among others, some of these include textiles, metal, wood working and of course ceramic. The practice of engaging with material to make something by hand is craft but the work produced may be craft, art or design. But craft is ever present. Hence the practice of craft is entangled with traditional use of material, like the way ceramic is associated with pottery.

To me, the very question of whether my work sits within craft, art or design, speaks to the interdisciplinary nature of my work. From my research around conceptual ceramics, sloppy craft, and craft as an aesthetic position, my understanding of the main distinction between craft and art is an emphasis on the practical, traditional and skilled use of materials, to often and traditionally make functional objects. This is what I am referring to when, on page 4, I write: "Similarly, my work is not about craft but, because I use clay, it is entangled with craft." Here I am attempting to illustrate the blurred boundaries of craft, design and art. My work is presented as art but could certainly be presented as craft. Just because I produce work in ceramic doesn't mean the work itself is craft, although art, craft and design are entangled in different ways in each piece.

Hand Building:

As opposed to 'throwing' which involves making round forms on the pottery wheel, hand building is a method of working with clay that involves simply working the material by hand. There are many techniques including slab building which is simply rolling the clay into a flat piece like one would roll out pie dough. The flattened clay can be used for draping or cutting up into pieces for sculpting.

Material Culture:

In his article titled: *Mind in Matter: An Introduction to Material Culture Theory and Method*, Yale Art History professor Jules David Prown defines the term Material Culture as follows: “Material Culture is the study through artifacts of the beliefs-values, ideas, attitudes, and assumptions of a particular community or society at a given time. The term Material Culture is also frequently used to refer to artifacts themselves, to the body of material available for such”. (Prown 1982, 1) Like this definition, I make reference to Material Culture as a discipline that is concerned with the relationship of human culture to the objects and the physical world that surrounds them.

Slab:

Slab is a technical term that refers to clay that is rolled into a flat form. Refer to Hand building for context.

Smoosh:

In my project I use *Smoosh* to refer to the form that is achieved when clay is squeezed between two solid pieces.

Appendix B

DOCUMENTATION OF EXHIBITION - Gallery



Figure 27. Smooches, Slabs & Slices: Entanglements in Ceramic. MFA Thesis Exhibition by Pam Nelson



Figure 28. View from entrance



Figure 29. View of Slabs. Photo by Kristy Boyce



Figure 30. View of Smooshes



Figure 31. View of Smooshes and Slices



Figure 32. Big Slab #1. Photo by Tom Feiler



Figure 33. Big Slab #1 (Detail) Photo by Tom Feiler



Figure 34. Big Slab #2. Photo by Tom Feiler



Figure 35. Big Slab #2 (Detail) Photo by Tom Feiler



Figure 36. Folds and a Meteor (aka Danger!) Photo by Tom Feiler



Figure 37. Folds and a Meteor (aka Danger!) (Detail) Photo by Tom Feiler



Figure 38. Upright Smoosh. Photo by Tom Feiler



Figure 39. Upright Smoosh (Detail) Photo by Tom Feiler



Figure 40. Twisted Smoosh



Figure 41. Twisted Smoosh (Detail) Photo by Kristy Boyce



Figure 42. Big Smoosh. Photo by Tom Feiler



Figure 43. Big Smoosh (Detail) Photo by Tom Feiler



Figure 44. Tectonic Plates. Photo by Tom Feiler



Figure 45. Tectonic Plates. Photo by Tom Feiler

Appendix C

DOCUMENTATION OF EXHIBITION - Process



Figure 46. Smooch Studies. Photo by Kristy Boyce



Figure 47. Smooch Studies. Photo by Kristy Boyce



Figure 48. *Smooch Studies*. Photo by Kristy Boyce



Figure 49. *Smooch Studies*. Photo by Kristy Boyce



Figure 50. *Smooch Studies*. Photo by Kristy Boyce



Figure 51. *Smooch Studies*. Photo by Kristy Boyce



Figure 52. Process Room, showing plaster molds, process videos and foam rock. Photo by Kristy Boyce



Figure 53. Process Room, plaster molds. Photo by Kristy Boyce