

**Investigating the Relationship between Materiality and Meaning in Art Education Settings**

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## **ABSTRACT**

### **Investigating the Relationship between Materiality and Meaning in Art Education**

#### **Settings**

**Marcela Bórquez Schwarzbeck**

This thesis explores ways in which the new materialist idea of the entanglement of materiality and meaning can be investigated in art education encounters. For this study, I developed a workshop with the methodology of Design Based Research that was implemented in two iterations in the Art Education graduate studio in Concordia University and in the Montreal Museum of Fine Arts respectively. Five students enrolled in the BFA specialization in Art Education in Concordia University volunteered to participate. Their experience as students, art makers and teachers was key for pointing towards procedures and theory that could be applied to future educational encounters. Throughout the workshops it was possible to observe that our understandings of materiality and its relationship to meaning are deeply rooted in and performed by the way we position ourselves in the world and thus our learning and teaching. An important achievement of the exercises was providing opportunities to witness that things make sense together with and without us. Added to that, the research pointed towards the potentialities of a pedagogy of diffraction for articulating the relationship between materiality and meaning in art education settings. That is, the exercises allowed for unexpected and unconventional approaches to materiality as a way to produce difference, rather than replicating sameness, and to give way for things to take shape and meaning in relations.

Keywords: materiality, meaning, diffraction, new materialisms, art education

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## **Chapter 1. Introduction**

### **1.1 Introduction**

This research departs from an exercise of self-positioning within the field of art education in which I came to adopt as a statement the title of non-artist. In my view, this position allowed me to opt for questions of relationality rather than identity, exempting me of saying something through art while presenting opportunities to think with it. I was also interested in moving in this direction insofar as it permitted to consider the power of art as something that may happen with, but is not dependent of, us—humans, artists, spectators. It is from this perspective that I ask: What else can art do besides being a medium for self-expression? As I will explain throughout this thesis, this question is intended to point towards the performativity of materiality, that is, that materiality is not passive and inert, and to shed a light on ways in which meaning emerges within that more-than-human material action. Put differently, this research follows the premise that materiality and meaning exist in a dynamic and intricate relationship, and it seeks to highlight ways in which art acts as a space in which materiality, meaning, subjects and objects can be in continuous re-articulation. Following this, throughout this work I will unfold as well how that question inadvertently posited a dichotomy that held self-expression and identity on one side and relationality on the other, which, in turn, was challenged and re-articulated by the research.

With this in mind, I have developed and researched two workshops that presented unconventional approaches to materials and artworks in order to observe meanings as they emerge in an art education setting. To achieve this, I employed a Design Based Research methodology, which is concerned with the design of tools—educational in this case—and the analysis of their implementation in real life encounters. Five student-teachers enrolled in the BFA specialization in Art Education at Concordia University were recruited as participants.

During these workshops, we collaborated in practical and theoretical inquiry into the nature of materiality and meaning, the possibilities around art materials, and ways in which meanings materialize in intra-actions<sup>1</sup>. Based on the participants' teaching experiences, we were also able to discuss the pedagogical strategies employed as well as think about other possible forms and applications for the exercises. The first workshop took place in the Art Education graduate studio in Concordia University, and the second workshop in the Montreal Museum of Fine Arts. The decision to change settings was made in order to look into the dynamics that are enabled and privileged in each art education setting, and to create a space to reconsider and reflect on how art comes to matter in relation to other artworks, contexts, readings, dialogues, and other things.

The exercises resulted in opportunities of unlearning as a path towards letting new articulations take place. Subsequently, these articulations allowed me to develop an understanding of diffractive pedagogies<sup>2</sup>. I will explain how diffraction as opposed to reflection allows for performative becoming of materiality and meaning, instead of requiring a correspondence between the two. While materiality, the main axis of this research, proved to be simultaneously an obvious and opaque concept, studying it in relation to meaning served as a way to contest or at least uncover the generalized presumption that situates human

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<sup>1</sup> The term 'intra-action' is developed by Karen Barad (2007) and for the purposes of this research it is preferred over the more common 'interaction'. Please refer to section 1.6.4 in this chapter for further explanation.

<sup>2</sup> The concept is introduced in chapter 3 section 3.2.1.1 based on the account of diffractive pedagogies in dance found in Hickey-Moody et al. (2016). I elaborate on my understanding of diffractive pedagogies on chapter 5 section 5.4.3. The concept is closely linked to Donna Haraway (1997) and Karen Barad (2007).

actors as the givers of meaning. Perceiving materiality as having a porous and somewhat volatile nature was also a window towards understanding its performative dimension which presented a rich horizon of possibilities for future educational encounters and creative explorations. Thanks to the participants' observations, the research process also provided valuable insights on the role of self-expression within art education that point towards future directions for this research that are developed throughout the last chapter of this thesis.

By addressing the topic of materiality and its relationship to meaning, this research participates in a discussion that is currently taking place, generally referred to with the term new materialisms. Like the thinkers within the new materialist turn, this work will argue for the value of renewed and revised ways of thinking about and with matter. The design of this research, in particular, turns Karen Barad's theory of agential realism into pedagogical situations informed by an understanding of an entangled and indeterminate way of being of materiality. Barad's work conjugates ontological questions raised by findings in quantum physics with philosophy and feminist theory to think about material and discursive practices of knowing and becoming. The particular approach of Design-Based Research coincides with these interobjective<sup>3</sup> theories considering equally the role of participants, researchers, designed tools and environments, and proposing guidelines for the analysis of their interactions and development in iterations.

## **1.2 Statement of purpose**

The purpose of this research is to investigate the potential contributions of the new materialist proposal of the entanglement of matter and meaning to our understanding and

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<sup>3</sup> The term interobjectivity is used to refer to more-than-human participation in practices of knowing and being. See Davis (2009).

practice of art education through the methodological approach of Design-Based Research. More than learning and teaching through artworks and other objects, this research responds to an interest in creating situations that make tangible how their meanings and material definitions come into being in intra-actions. Keeping in view the possibilities of artistic creation and reflection beyond traditional art making and interpretation, a group of five student-teachers enrolled in the Art Education BA in Concordia University participated in a series of exercises designed to engage with the idea that the meanings of things might not be determined universally or relatively, but relationally, and that their materiality might not be previously determined but also contingent. These encounters were intended as a space of collaborative investigation and development of pedagogical tools that could help articulate different forms of relationships between the material and the discursive in art education settings.

### **1.3 Research objectives**

The research has as objectives 1) developing a creative workshop in two iterations for the exploration of the relationship between matter and meaning, and 2) unfolding practical and theoretical insights on the interdependence of knowing, making and becoming from a new materialist point of view. Keeping in mind the participation of pre-service art educators, the workshop was developed to be a platform for expressing their understanding of the entanglement of materiality and meaning, namely, for the discussion, questioning and articulation of the relationship as it is experienced from their point of view as art educators, artists and students. By translating the workshop to different settings, the studio for the first iteration and the museum for the second, the design addresses the possibilities of art appreciation and thinking as forms of art making, and seeks to engage in unconventional and

unexpected learning as part of being. To achieve this, the research observed the participants as they explored with their own relationship with mediums and materials for art making, the differences and possibilities of art appreciation, interpretation and critique, as well as self and collective knowledge.

The questions that motivate these objectives are:

- How can the exploration of the relationship between matter and meaning be translated into pedagogical tools and curricula for art education?
- What insights on art making and thinking can a group of pre-service art educators develop through these pedagogical tools and curricula?

#### **1.4 Justification and rationale**

This research intends to explore possible contributions of new materialist theories to the practice and research of art education. Because of the alternatives to the subject-object hierarchy that new materialisms offer, the ideas under their umbrella can open our understanding of materiality in art education beyond mere interpretation, where the dynamics of every day objects, artworks, art materials, and artists participate together in meaning-making. Incorporating new materialist conceptual tools can be a way to promote interdisciplinarity and break through the borders that separate the humanities and the exact sciences, because they present instances of performative truth and meaning, and thus rethink the separation of theory and practice. Furthermore, this approach pushes forward an ethical agenda that invites students, researchers and educators to think about possible forms of non-anthropocentric art education—that consider the desires and temporalities of nonhumans and of those who fall into non euro-centric categories of personhood— and to reflect about why they might be important today and in an imagined future.

## 1.5 Limitations

The research presented a few challenges and limitations. Regarding the methodology, the change of context that marked the different iterations of the workshop required meticulous adaptations that could maintain the integrity of the workshop design while attending to the particular requirements, rules and constraints of each space. Compared to working in the studio, in the museum the participants did not have the freedom to take and manipulate any object as they pleased. Nevertheless, the institution approved that we bring small objects in into the gallery space, use cell phones to photograph, take notes and make sketches with pencil, as well as using our bodies to make connections between things through discrete movements. Furthermore, during the museum workshop there was an unexpected number of visitors which made it difficult to document the activities, yet brought interesting remarks on the role of others in different processes of coming into being. The extra challenge was also valuable insofar it represented a particular opportunity for the participants to think and compare encounters with and between things in museums and in more quotidian spaces. Concerning the theoretical basis of the research, certain propositions about the nature of materiality and its relationship to meaning felt difficult to grasp since they presented a logic that seemed to go against deeply engrained assumptions. This reflected in an important time requirement for the discussion of basic concepts in order to set a common ground for collaborative analysis.

Needless to say, the uses and limitations of the findings respond to specificities of the research participants and the contexts in which the research took place. Still, based on the methodology and the theoretical framework's interobjective approach to research—their consideration of human and nonhuman participants in knowledge practices—it is possible to translate the findings of this research to other situations. DBR recognizes that knowledge

takes place in complex interactions in a way that accounts for the strong presence of the participants' observations in this research as well as the role of the two sites. New materialist theories provide conceptual tools to think about the material and discursive effects that the field of art education may have in processes of learning and becoming.

## **1.6 Terminology**

### **1.6.1 Matter/materiality/object/thing**

Different old and new materialist authors use these terms as synonyms as frequently as they do to highlight the implications that their subtle variations can have. Traditionally, the term object marks an opposition to subject, where objects depend on subjects to exist while subjects are self-sufficient. Predominantly, in new materialist perspectives this hierarchy is abandoned and the term object is used to refer to humans as much as anything else, or the positions of subject and object become interchangeable regardless of who or what is taking each title. The term thing is used by some new materialist authors following twentieth century german philosopher Martin Heidegger —namely Graham Harman in his construction of Object-Oriented Ontology (Harman, 2005), and Bill Brown in his Thing Theory (Brown, 2001; Joselit et al., 2016)— to refer to the essence of things. Harman's work makes a careful revision of the status of things in the world that is situated within the field of philosophy, while Brown explores their way of being through the use of language and elaborating comprehensive literary theory. It has been key for both authors to return to the phenomenological separation of the thing-in-itself and the thing-to-me and, in order to remove the privilege of the subject as a prerequisite of existence of the thing, and to think things as full, autonomous entities. Other authors, like political theorist Jane Bennett (2010; 2012), use the term thing to avoid the hierarchization implied in the term object

without carrying the essentialist discourse. The objective here is to think all kinds of things equally in their relations with other things. The term matter in classical physics marks an opposition to energy, and it comprises everything that takes a place in space. This term along with materiality is often used to refer to primary matter or to materials, in general, what things are made of.

For this research, I will be using the terms matter and materiality in all their broadness, to refer to things, objects and materials. I am interested in materiality as something that emerges within interactions, and in that sense it will be pertinent to speak about matterings. This could be linked to Barad's theory, which predominantly informs this research, that posits that there is not an inherent but a performative correspondence between words and objects. To address this, Barad employs the term phenomena as understood in physics (2007). However I have deemed that the term is too inaccessible for the purposes of this research. Following Bennett (2010), it has been useful to think in terms of bodies to create symmetries between human and nonhuman materiality.

### **1.6.2 Entanglement**

This term is at the base of Barad's agential realism, it comes from experiments in physics that show particles behaving like waves and waves like particles. This phenomenon demonstrates that observations and observers cannot be separated, including the active participation of measurement instruments in the conformation of phenomena (2007). As an ontological proposition, this term states that no thing or idea is determined before or outside a relationship. These ideas are also basic premises of the research presented here.

### **1.6.3 Material-discursive**

Many new materialisms have emerged as a reaction to cultural studies and philosophies of language, opting for the material instead of the discursive. This research is



based on the idea that the material and the discursive are both always present in matterings and are co-constitutive of each other. In other words, they are entangled. Thus, addressing them as one is a form of emphasizing this being-together and allowing their causal relation respond to that, rather than setting a priori that one comes before or has priority over the other. This formulation of the concept is also borrowed from Barad and agential realism (2007).

#### **1.6.4 Intra-action**

Barad proposes this term instead of interaction to strengthen the idea that things do not precede their relations (2007). Put differently, this term highlights that relations are not a place where two or more already defined and determined things find each other, but rather where they perform temporary material-discursive boundaries. The term intra-action is important to this research as an accessible tool for teaching and learning activities.

#### **1.7 Organization of the thesis**

This thesis is organized in five chapters: introduction, literature review, theoretical framework, methodology, and findings. The literature review will contextualize this research within the field of art education. To do so, it will summarize ideas of material culture studies in art education, followed by a brief review of the contributions to the field and critiques of new materialist theories, and provide an overview of the explorations of the relationship of materiality and meaning in contemporary art focusing on the artists and artworks that served as inspiration for the workshops. To establish my theoretical framework, I look closer into new materialist theories, considering the different perspectives that they can encompass, and situating this research within agential realism theory, while briefly addressing other theories that inform new materialist thinkers and have permeated in this research. In the following

chapter I look into Design-Based Research, the methodology that this research follows, and I explain the procedures for data collection, mainly what the workshops consist of and what happened during them. The final chapter offers an analysis of the data collected during the workshops, presented on a scaffold of Design-Based Research, new materialist theories, and participant contributions.

## Chapter 2. Literature review

### 2.1 Introduction

What is the pedagogical potential of materiality? More importantly, what do answers to this question proceeding from the field of art education tell us about how we understand materiality, its role in creativity, and our relation to with materials? Certainly, addressing materiality today is a task that goes far beyond pointing to things. In art education, the idea that materiality and immateriality, as much as theory and practice, have an inherent form or location in space and time is widely contested. The educational turn in contemporary art asks both about the nature of knowledge and research in relation to art making and thinking, as well as the potency of institutions that can decide whether knowledge emerges contingently or within confined borders (Rogoff, 2006; 2010). Emerging methodologies such as research-creation and arts-based research are adding to the presence of art-as-research within the humanities (Barret & Bolt, 2013; Carter, 2004). Recent theories surrounding materiality present new paths for educational researchers to reconsider how learning occurs together with things, and to think about what that means for knowledge (Fenwick et al., 2011). These theories can attend to questions arising from the appearance of new technologies and intelligent tools<sup>4</sup> that take part in creative processes as evidence that these tools are not merely neutral supports for human activity (Knochel, 2016). Similarly, they provide conceptual and methodological tools to look closely into the role of learning environments in learning practices (Fenwick et al., 2011).

This section presents an overview of literature relevant to the understanding and practice of art education that attempts to look closer into the ways learning is performed together with materiality. I elaborate on how this attitude favours the investigation of objects

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<sup>4</sup> Software with the capacity to memorize, retrieve, analyze and transform data.

and materials side by side with humans, participating in each other's conformations and in acts of signification, and on the implications of this form of being-with for art making and thinking. I start by unfolding different approaches of material culture studies, which are still deeply embedded within theories of discourse, but which posit questions that announce the shift. I continue by presenting a brief overview of new materialist theories applied to art education research. They include mainly feminist materialisms, object-oriented ontologies, and approaches of vital materialism. Still, there is a recognition of a larger effort of which they are part that extends beyond those directions. Finally, I take a moment to address how questions around materiality have been explored in contemporary art, paying special attention to artists and artworks that directly inform this research.

## **2.2 Material Culture Studies**

In the past decades we have witnessed that, as Richard Lachapelle points out, "rather than continuing to define the arts as somehow distinctive and, therefore, separate and isolated from other cultural practices, material culture studies can potentially bring the arts into the arena of everyday life" (2011, p.23). Material culture, as defined by Paul E. Bolin and Doug Blandy, is "a descriptor of any and all human-constructed or human-mediated objects, forms, or expressions, manifested consciously or unconsciously through culturally acquired behaviours" (2003, p.249). Indeed, the teaching of material culture has meant opening the doors of classrooms and pages in journals to all kinds of objects, not only art or museum objects (Bolin & Blandy, 2003; 2011), in view of exploring their "educational value" (Bolin & Blandy, 2011, p.x).

As can be seen throughout the compilation *Matter Matters* (Bolin & Blandy 2011), some of the most recurrent issues addressed from the intersection of art education and

material culture studies are: the possibility of reconstruction or deconstruction of cultural identity thanks to the materialization of culture in objects (Baxter & Wilson McKay, 2011; Serig, 2011); the investigation of objects as potential points of encounter with other people, epochs, places or environments (Richardson, 2011; Kraft, 2011; Lachapelle, 2011; Chung 2011); and, resonating with the investigation of visual culture studies in art education (Duncum, 2012), the analysis of aesthetic-discursive stimuli present in everyday activities and objects (Bequette & Warrick Petkau, 2011; Marshall, 2011). To investigate these issues, the studies develop and test “theoretical perspectives and practical instructional ideas related to teaching about and through objects and expressions from the surrounding world” (Bolin & Blandy, 2011, p.x). That is, they put in practice diverse forms of experimentation with objects envisaging the uncovering of their meanings or their potential to unveil discourses.

Perhaps the two most valuable contributions of material culture studies to art education have been shedding a light to the potentialities in all kinds of objects, and advocating for the possibility of agency in nonhumans. As mentioned before, the first aspect has been reflected in an enriching expansion of the field of art education. For the second aspect, the implications could also be very significative because, as Jack Richardson explains, “if one concludes that subjects and objects both possess the capacity to affect other subjects and objects, it is only through this reciprocal agency that either subjects or objects come to form and both have the capacity for active engagement” (2011, p. 5).

This last point has not been thoroughly elaborated from the perspective of material culture studies in art education, nor agreed upon by most its proponents. In many of their studies, matter comes to matter only as a symbol, which is no other than a reflection of human subjectivity (Bolin & Blandy, 2003; 2011; 2012). In others, matter is expressed as a predicate, a possible unfolding of a subject, or as that which surrounds him or her

(Richardson, 2011). It is not difficult to find on these works the objects being seen as passive sources or containers of information, in a horizon where knowledge is exclusively human (Lachapelle, 2011); nor cases where agency is only partially or conditionally granted to objects, because they need to earn it by being extraordinary or gain it as a consequence of human actions (Hafeli, 2011). The framework provided by these perspectives is not the best suited tool to think the material-discursive as indissociable, and it carries an anthropocentric limitation to consider an active nonhuman participation in the process of knowledge.

More recently, approaches to materiality from educational research have experienced a shift “that counters theoretical positions that assume the social/cultural and the personal to be defining parameters of what it means to learn” (Fenwick et al., 2011, p.vi). Interobjective epistemologies, such as described by education researcher Brent Davis (2009), address this shift of attitude towards materiality positing that the conformation of self, knowledge and world take place within relationships of reciprocity between humans and nonhumans, and thus what is and what we know are mutually implicated. Fenwick et al. (2011) opt for the term “sociomaterial” to emphasize that sense of being and learning together. As the group of education researchers points out, there is a growing number of theories that could be considered within that category; as a starting point they analyze the potentialities and limitations that complexity science, cultural historical activity theory, actor-network theory and spatiality theories present for educational research (2011). With them a growing number of scholars are attentive to how these approaches might account for the personal and the cultural together with one’s own and other materiality. To mention as an example, in the Department of Art Education in Concordia University Allison Moore and Ehsan Akbari presented respectively the theses *Heirloom Jewelry: An Actant of History and Identity* (2016), developed with actor-network theory, and *Soundscape Compositions for Art Classrooms*

(2014), employing complexity theory. The new materialisms that frame this research are also closely related to these theories. Next I will look more in depth into how their approaches have contributed to art and education research.

### **2.3 New materialisms**

The term new materialisms makes reference to recent philosophical efforts concerned with finding new ways to think and define materiality. That these materialisms are new does not necessarily imply a rupture. In fact, many of these theories are in dialogue with cultural studies and the linguistic turn (Coole & Frost, 2010; Barret & Bolt, 2013; Dolphijn & van der Tuin, 2012), and build bridges with other disciplines, like quantum physics (Barad, 2007), feminism (Braidotti, 2002), and political ecology (Bennett, 2010). The recent emergence of new materialisms mainly responds to the change of conditions regarding what we can do with and what we know about matter (Coole & Frost, 2010; Barret & Bolt, 2013). Many of the new materialists agree, in general, that to grasp new aspects of materiality, it is necessary to have alternatives to the humanist anthropocentrism and to philosophies of the subject (Joselit et al., 2016). It is important, however, to emphasize that the plurality of proposals that fall under this category can intersect in these and other points, and still do not follow a homogeneous or even harmonious path (Coole & Frost, 2010; Barret & Bolt, 2013; Joselit et al., 2016; Dolphijn & van der Tuin, 2012).

Many exponents of the material turn share the idea that art is a fruitful space to experience their proposals and conduct further experiments (Harman, 2012; Barret & Bolt, 2013; Hickey-Moody & Page, 2016; Joselit et al., 2016). While new materialist approaches seem to be already present in material culture studies, the consequences of the subtle shifts they bring are very significant. To start, they take “materiality [a]s always something more

than "mere" matter: an excess, force, vitality, relationality, or difference that renders matter active, self-creative, productive, unpredictable” (Coole & Frost, 2010, p.9). In the particular case of art and art education, this premise provides a solid ground to move away from interpretation and representation in order to consider “the various bodies that enable art to come into being” (Barret & Bolt, 2013, p.7). In other words, this new framework “situates the aesthetic as a relationship “between” – between the human and nonhuman, the material and immaterial, the social and the physical” (Barret & Bolt, 2013, p.6).

In the past few years interest in new materialist theories in art and education research has increased rapidly. Graham Harman, exponent of object-oriented ontology, has spoken directly about and to contemporary art in his works *Graham Harman: Art Without Relations* (2014) and *The Third Table* (2012), his contribution to the *dOCUMENTA (13)* catalog. These works attempt to provide tools to think about the life of the art object itself, independent from its descriptions or encounters. At the same time, researchers in textile art approach theories of materiality to think about the embodiment of knowledge and to explore what materiality might teach us about technology, the digital and their effects on social interaction (Negrin, 2013; Frances et al., 2017). Needless to mention, new theories of materiality have been employed in educational research beyond the arts, to think about other disciplines, the role of technology in education, curricular design and space/place. Besides having the double intention of promoting more ethical relationships with ecology, there is optimism in educational research that approaching materiality in these ways might contribute to opening spaces for other epistemologies and ontologies within educational encounters (Hickey-Moody & Page, 2016).



## 2.4 Contemporary Art

The passage from modern to contemporary art was characterized by a generalized estrangement of representationalism, urging for investigations on the nature of, precisely, materiality and meaning. Art movements of the 1950s to 1970s such as minimalism and conceptualism, addressed this issue by bringing upon the possibility of materials, ideas and actions standing for and by themselves as art objects. Within this turn, focusing on materiality became a mechanism to propitiate non-narrative experiences of art (Fried, 1967/1998; Glaser, 1966/1998). At the same time, introducing language and time as materials gradually restructured what the tangible and the intangible meant for the arts, and questioned the value of the transcendent showing, in contrast, ephemerality as closer to life (Lippard, 1973; 2012; Lange-Berndt, 2015). With this came along explorations of the body as materiality and the recurrent question: where does the art object lie? (Hudek, 2014).

These innovations stay latent in more recent artistic investigations that comment on the relationships between humans, objects, information, and images in an era shaped by the Internet and postindustrial economies. Works considered as relational aesthetics or participatory, for example, explore art as an event or a device to propitiate encounters, focusing in interaction and collaboration as the constituents of the art object (Bourriaud, 2002). Contemporary art and curation have turned to education to address knowledge production through the logic of art in order to think of its emergent forms rather than established ones, as a direct response to globalization and economical interests that push towards the homogenization of education (Rogoff, 2006; 2010). Similarly, the growing presence of the Internet in our lives has permeated how these questions are addressed by the arts. The term “postinternet” marks a generation of artists whose work translates languages and aesthetics from the Internet to art mediums like painting, installation and video (Grayson,

2015). These investigations, however, are not so interested in making a radical call towards dematerialization as they are about finding ways to explore the potentiality of materiality, and to think about it relationally.



Figure 1. *The Universal Addressability of Dumb Things*. (Leckey, 2013).

A work that could be considered postinternet, *The Universal Addressability of Dumb Things* (2013) by the artist Mark Leckey has been of direct inspiration for this research. The piece is named after “a phrase from a concept in computing that refers to a network of everyday objects, an Internet of Things, all communicating, talking away to one another” (Leckey, 2013, p.5), and it is carried out through clusters or collections of objects that put it closer to a curatorial project than to an artwork. I have developed the exploratory activity for the second workshop building on Leckey’s idea of making collections, expecting that the participants would find patterns emerging when superposing things and containers. I also consider that pointing towards the addressability of things raises ontological and epistemological questions that can be related to new materialist proposals. For example, Iris van der Tuin’s (2014) reading of Donna Haraway’s notion of interpellation posits it as a

generative interruption, an encounter that conjugates particular unfoldings in those that meet. In addition, the piece relies on new techniques, like 3D printing, which put in question the ontological separation of materiality and immateriality by being evidently equally and reciprocally based in the informational—numbers, codes, data—and the physical—wood, acrylic, mechanic arms, blades.



Figure 2. *Outlaws*, from the series *Equilibres (A Quiet Afternoon)*. (Fischli & Weiss, 1984).

Figure 3. *Popular opposites: Theory and practice I*, from the series *Suddenly this Overview*.

(Fischli & Weiss, 1981).

In a similar vein, other artistic comments on quotidian encounters with and between objects and ideas incite the viewer—who is active and as such modifies as much as she is modified by the piece—to reconsider this and other boundaries. Among them, the work of the duo Fischli & Weiss has been particularly relevant to the research because of its ludic tones. The play of titles and images in the already humorous and childish photograph series

*Equilibres (A Quiet Afternoon)* (1986) and in their unfired clay series *Suddenly This Overview* (1981-ongoing) concede the possibility of innumerable material and discursive formations, and show dichotomies in complex dynamism. In these works, the titles are not intended to explain the pieces, but rather act together with them and the viewers by giving way to dialogue, dissonance or concordance. Based on this, during the workshops I have encouraged the participants to think of names for their works and to consider how they become affected in the relationships they make. The unconventional arrangements in *Equilibres (A Quiet Afternoon)* (1986) offer other possible ways in which things could make sense together that inspired the main activity of the workshops.

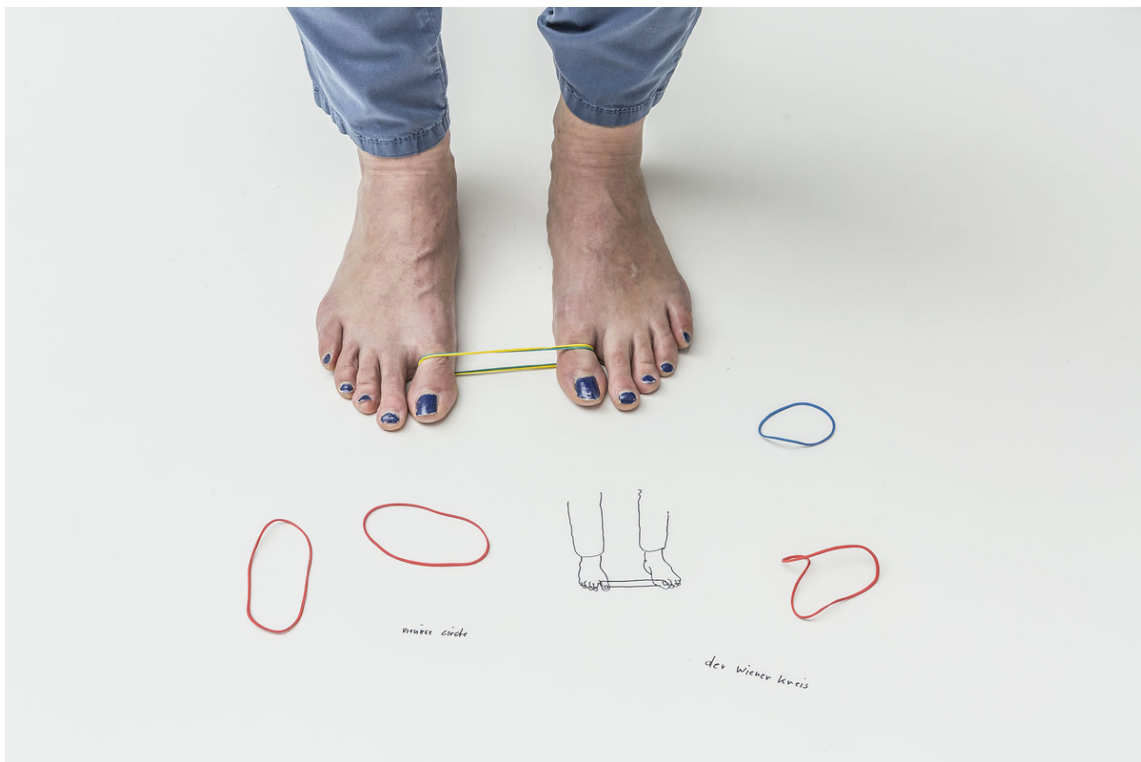


Figure 4. *The Vienna Circle*, 1924. (Wurm, 2001).

I have also considered closely the series *One Minute Sculptures* (1996-ongoing) by Erwin Wurm, which in itself could be seen as a pedagogical investigation, since it consists of guidelines for the (mis)use of certain objects by positioning oneself awkwardly in relation to

them. This work exposes the relationship of materiality and meaning through infinitely confronted and combined masses that take form with different embodied interpretations. I have translated the same strategy to the design of the warm-up exercise of the studio workshop precisely to incite the participants to think about their own materiality as symmetrical to that of any other object, and to consider their preformative dimensions equally.

The paradigmatic artistic excursions towards “dematerialization” (Lippard, 1973), “immateriality” (Lyotard & Chaput, 1985) and “relationality” (Bourriaud, 2002) along with the examples mentioned above evidence a profound engagement of contemporary art with the exploration of materiality —human and nonhuman, tangible and intangible—, meaning, and their relationship. Paradoxically, these same ideas open spaces to think about materiality and meaning as separate, be it in a hierarchical structure where one is valued over the other or a causal relationship that sets one as the necessary precedent for the other (Lange-Berndt, 2015). Responding to this contradiction, artists, critics and curators working along new materials thinkers are seeking to reframe materiality and meaning horizontally through epistemological negotiations with deeply engrained artistic values (Hudek, 2014; Lange-Berndt, 2015). In view of all this, the question in the air is most pertinently and provocatively stated in the recent article *A questionnaire on materialisms*: “Which, if any, are the productive materialisms for making and thinking art today?” (Joselit et al., p.3).

## **2.5 Conclusion**

This chapter intended to give a space to different ways in which materiality is explored in art and art education research. I have passed from material culture studies as an introduction of the livelihood of things to art education research to more current explorations

in the field that are making an effort to understand the effects of nonhuman agency in educational encounters considering the conformation of being and knowing in relationship with contexts, educational material and everyday things. I have discussed how, similarly, contemporary art has, since the 1950s, been a space of exploration of the potential of materiality beyond representation. In the above examples, artworks reflect conditions that push for that exploration, like the permeation of the Internet in all aspects of our lives and the transition to postindustrial economies, while simultaneously offering mechanisms to rearticulate structures of meaning. In the next chapter I will continue unfolding theories and ideas that conform the new materialist turn. I will address more in depth different understandings of things, objects and matter. I will also dedicate special attention to questions surrounding practices of knowing and to the theories and concepts that frame the research.

## **Chapter 3. Theoretical framework**

### **3.1 Introduction**

This research is situated within a theoretical turn that has come to be known as new materialism. It joins their efforts of observing things making sense together with and without us. The research is particularly informed by agential realism, a theory developed by Karen Barad (2007). In that path, it also considers closely the remarks of feminist biologist Donna Haraway (1988; 1997) on the place and nature of knowledge that in turn posit their own ontological implications. This work is situated within recent art and education research that explores the potential contributions of these theories for our understanding of what art is and can do, and propose conceptual tools that can be translated to art education settings.

### **3.2 New materialisms**

Among new materialist theories, Graham Harman's object-oriented ontology (OOO) and Jane Bennet's vital materialism are probably the best known, and, thanks to their differences, they are representative of the variations within this turn. To start, while these theories concur that all kinds of objects and things should be theorized equally, their conceptions of objecthood and thingness are based on different criteria. Namely, OOO posits objects as autonomous, real, and irreducible to their parts or representations (Harman, 2012). This definition brings along a distinction of "real objects" and "sensual objects", where the second can never totally encompass the first, thus the first can only be partially known, through different intermediaries (Harman, 2012, p.4). Vital materialism, on the other hand, considers everything—human and nonhuman, organic and inorganic—as things with "an active, earthy, not-quite-human capaciousness (vibrant matter)" (Bennett, 2010, p.3). That is, vital materialism defines things based on their materiality and capacity for action, as well as

by their tendency to come together following “an emergent rather than a linear or deterministic causality” (Bennett, 2010, p.112). The theories, which in turn are situated in the particular practices of the authors—Harman a philosopher and Bennett a political theorist—also differ in their objectives and justifications. OOO is concerned with “the real existence of the world outside the human mind” (Harman, 2016, p.51), even though for this philosophical standing “the real is something that cannot be known, only loved” (Harman, 2012, p.12). Harman explains how the contradiction can be functional by recurring to the ancient definition of philosophy as “love of wisdom” (2012, p.12) rather than wisdom itself. On an almost opposite ground, vital materialism is presented by Bennett as a “political ecology of things” and it sets out to “to encourage more intelligent and sustainable engagements with vibrant matter and lively things” (2012, p. viii).

Besides representing the spectrum of new materialisms, reading the contrasting proposals side by side makes their problematic points more visible and available for discussion. Harman (2014) has criticized Bennett’s work and the new materialist turn in general for disdaining objects to favour their relations, therefore depriving them of depth. Ironically, he has also denounced that “all intellectual theories of depth have the inherent problem that there is not much for us to say about a depth beneath all access” (2014, p.103). That is, while for some theorists the difficulty of addressing something that escapes us can be taken as an invitation to imagine conceptual tools to think about the nature of materiality and how we learn with and about it, for others like Harman it is evidence of an inaccessible intimate life of things. Bennett (2010) on the other hand, draws a way through which it may still be possible to grasp and theorize this “things” despite not corresponding to the current possibilities of language by recurring to the philosophical notions of affectus as developed by Baruch Spinoza and assemblage as understood by Gilles Deleuze and Félix Guattari. She



explains how their philosophies allow to consider symmetrical potentials of becoming in all things that in turn emphasize being as a plural processes that take place in events rather than in essences. In any case, these and other efforts make clear that there is work to do towards linguistic, epistemological, and other tools that might better allow to address the performative dimension and agency of nonhuman materiality without anthropomorphizing it.

Another important point highlighted by Harman (2016, p.51), who openly declares himself an anti-materialist, is that “materialism[s] are too quick to decide what material is, and thereby truncate the surplus or surprise found only in a reality that is not co-constituted by humans.” Added to that, since the task of defining materiality in a horizon with such a diversity of approaches becomes time and page consuming, the turn’s efforts often stop there. Nevertheless, proposals like Bennett’s (2010) use of the term “bodies”—which attempts to bridge the human and the nonhuman through their symmetrically own and yet foreign materialities—put us ultimately closer to tools for thinking beyond the human perspective. That is, the term allows us to better understand the potential of agency of nonhumans, and it is meant to address the plurality of knowing and becoming as they occur together with apparatuses, not as effects or causes, but in a reciprocal relationship. This resonates with the feminist materialisms that constitute an important branch of the turn and propose thinking the discursive and the material together. Within them, Donna Haraway (1988) presents difference as relational rather than ontological, and investigates the relationship between discourses and spaces of knowledge production to conclude that objectivity is necessarily situated and thus partial.

Finally, the generalized anti-anthropocentrism of the new materialisms, which brings us to refer to these efforts as “posthuman”, is equally promising and problematic. As much as it promotes horizontality and empathy, it can lead to an irresponsible disregard of specific,

uneven or vulnerable matterings (Bryan-Wilson, 2016, p.18), and of the incomparable potentiality of humans to affect both humans and nonhumans (Anderson & Perrin, 2015). What's more, in these attempts many new materialisms appropriate or fail to recognize their debt to non-western epistemologies and indigenous thought.

### **3.2.1 Knowing, making and becoming**

The interobjective approach of the new materialisms offers valuable insights on the relationship between knowing, making and becoming. Brent Davis (2009, p.101) refers to interobjective knowledge practices as participatory epistemologies because they follow that “descriptions of the universe are actually part of the universe—and, hence, the universe changes as descriptions of the universe change”. The reciprocal nature of materiality and meaning conceives both as active participants in knowledge practices and co-constitutive of each other. Nevertheless, such approach requires learning and teaching practices that allow outcomes that cannot be determined prior to educational encounters, but rather emerge within them. To mention an attempt of this in art education research, Charles Garoian (2015) proposes to think about tools, materials, spaces, institutions and other participants in knowledge practices as prothesis. This term, besides presenting an account for learning-with, introduces that togetherness in a double sense as enabling and disabling.

As Davis (2009, p. 101) points out, understanding interobjectivity does not come easily because it requires a rejection and replacement of deeply ingrained knowledge structures. To think the relationship between knowing and becoming or materiality and meaning as reciprocal, it is necessary to work with an onto-epistemological model that does not posit the (human) subject as the cause of knowledge. The educational theorist Elizabeth Adams St.Pierre (2016) thinks about a “posthuman empiricism” based on Gilles Deleuze’s work to posit that knowing and becoming unfold from their transcendental indeterminate

form into particular actualizations that take place in events. From this perspective theory and practice occur together as particular unfoldings of all the actors involved in knowing and making practices, not only human.

**3.2.1.1 Diffractive pedagogies.** Within new materialist theories of knowledge practices, I am particularly interested in what Hickey-Moody et al. (2016) call “diffractive pedagogies”. Diffraction is a physical phenomenon whose study informs us about the nature and behaviour of light. Haraway (1997) uses the term as an optical metaphor, in opposition to the metaphor of reflection, which often describes knowledge as a mirror image or representation of the world. Diffraction, in contrast, offers a transversal view of the world, where different things and ideas intersect and interfere with each other to make meaning. Building upon this idea, Barad talks about the literal and metaphorical implications of diffraction, mainly how the varying results provided by the two slit experiment<sup>5</sup>—used in physics to study diffraction, waves and particles—show how knowing practices define what is known, and that diffraction patterns result from superposition or interference and are expressed alternately in constructive and destructive forms. Barad (2007) employs the metaphor to develop an analytical method that she refers to as “diffractive reading” concerned with reading things through rather than against each other. Researching the constitution of bodies in teaching and learning practices, Hickey-Moody et al. (2016, p.217)

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<sup>5</sup> The two slit experiment consists in a mechanism with two slits through which light passes creating patterns that demonstrate that light can behave like a particle and like a wave. The debates on the nature of waves and particles raised by this experiment challenge classic physics and are at the heart of quantum physics. Physicists have noticed that the way light behaves is related to the mechanisms of measurement (there are different versions of the two slit experiment) and Barad among others believe that it is evidence of their entanglement.

explain that “diffractive analysis, then, can operate as an alternative method of analysis that pays attention to both relationality and material agency”. In their work, they translate this methodological approach to pedagogy as a way of studying the superposition of a “radically open” approach to the body and forms of “(self)-policing”, and the generative and disruptive patterns that emerge from it. Diffractive pedagogies could similarly address other instances of superposition and interference as rearticulations of potentialities for learning.

### **3.2.2 Bodies and agency**

If materialism was asking what materiality is, new materialism asks what, then, can it do? To address this, they proceed from expanded account of agency—understood as the capacity of action—that assumes that it can be exercised by nonhumans as much as humans. As mentioned before, Bennett’s use of the term “bodies” allows to think about the power of things to affect others—which in turn presents itself as a capacity to be affected, and thus as constant becoming in associations. Bennett (2010, p.21) explains that this nuance is drawn from the philosophy of Baruch Spinoza, and that it makes sense together with his notion of affectus, which more recently has given way to the development of affect theory. It is then in the context drawn by Spinoza’s notion of bodies that Bennett is compelled to address Deleuze and Guattari’s notion of assemblage, to emphasize that being is always plural. Bennett (2010, p.1) also refers to the participants in processes of becoming and knowing as actants, a term borrowed from philosopher and sociologist Bruno Latour’s actor-network theory that emphasizes that sense of potential for action as the agency that is distributed between the actors that conform the assemblage or network.

Similar to Adams St. Pierre’s recount of posthuman empiricism, Barad’s (2007) notion of entanglement explains the indeterminacy of things outside phenomena and posits that there are no observerless observations. This contributes to our understanding of the

above mentioned situatedness of knowledge that Haraway (1988) points to in that it presents objects and agencies of observation as determined within their encounters and not by ontological categories like subject and object. Barad (2007) employs the term apparatus to refer to these material-discursive practices that enact agential cuts, that design objects and agencies of observation. As an example of how this occurs in art education instances, Garoian (2015) researches the performativity of knowledge from the experience of teaching and learning in the museum. He explains how the museum-apparatus is conformed by narratives that are performed by the space as much as by the artefacts and the performance of visitors' previous knowledge and experiences. He then argues for a pedagogy that considers the museum and the visitors learning and taking shape together, in "critical dialogue" (p.235

### **3.2.3 New materialisms and affect**

Affect theory studies the effects that bodies are capable of, addressing primarily those that remain invisible, pre-individual, pre-linguistic, and pre-conscious. Affect is important for new materialisms as it is an expression of agency. Furthermore, affect could be seen as an announcement in the form of a minimal movement, or a seed of change or difference. This sense of difference or change, in turn, is key to understand being and knowing in constant state of becoming.

For art education research, affect is a conceptual tool particularly valuable for understanding the embodiment of knowledge in subjects as much as in space and whole apparatuses, emergent epistemologies, and the effects of aesthetics in constitution of subjectivities and knowledge (Hickey-Moody & Page, 2016). In addition, affect can address how things make sense together in a micro level and provide pedagogical viewpoints on unexpected and unconventional learning encounters.

### 3.3 Agential realism

Sharing similarities and differences with object-oriented ontologies and vital materialism, the two perspectives reviewed above, agential realism is the new materialist theory with which this research is best aligned. This ethico-onto-epistemological framework was built by Karen Barad (2003; 2007) over the proposal of shifting from a metaphysics of things to phenomena. Barad's use of the term "phenomena" derives from quantum physics, thus instead of referring to its philosophical connotation of the thing-to-me, it is used to point to "the ontological inseparability of agentially intra-acting 'components'" (Barad, 2003, p. 815). This theory denounces the "usual 'interaction' which presumes the prior existence of independent entities/relata" (Barad, 2003, p.815), and "recognizes that distinct agencies do not precede, but rather emerge through, their intra-action" (Barad, 2007, p.33).

As a more general proposal, agential realism "rejects the notion of a correspondence relation between words and things and offers in its stead a casual explanation of how discursive practices are related to material phenomena" (Barad, 2007, p.44). Barad thinks in terms of material-discursive practices where causality is enacted, and marks differential relationships of cause and effect. The author explains that discursive practices are not merely linguistic performances, but rather specific articulations and disjunctions that always occur in reciprocal relation with material (re)configurations. That is, matter in its understanding as phenomena is not merely a support of discourses but also mutable and active. In Barad's words, "matter is a substance in its intra-active becoming—not a thing but a doing, a congealing of agency" (2007, p.151).

Throughout her development of agential realism, Barad offers methodological remarks that are worth mentioning. To start, agential realism is considered an ethico-onto-epistemology by the author, which is the study of the nature of being in practices of knowing,

and an ethics to consider how these matter. This comprehends knowing, making and becoming as interdependent, and, thus, that knowing practices cannot be conceived as exclusively human. Barad explains, “responsibility—the ability to respond to the other—cannot be restricted to human-human encounters when the very boundaries and constitution of the “human” are continually being reconfigured and “our” role in these and other reconfigurings is precisely what we have to face” (2007, p.392).

This research is situated within new materialist theories, finding the most affinities with agential realism. Still, it is important to acknowledge that Barad’s efforts are not individual and that they are built on the work of others, like physicist Niels Bohr’s contributions to quantum mechanics and Donna Haraway’s studies on the intersections of science and feminism. The conceptual tools developed by Barad attend directly to the questions that motivate this research insofar as they are concerned with materiality always in co-constitutive relation to meaning. Agential realism achieves an unfolding of the complex relation by turning from representationalism and its causality of reflection, towards performativity understood as “a critical practice of engagement” (Barad, 2007, p.90). With this, materiality and meaning are no longer in a predetermined opposition, and both can be mattering and meaningful. In Barad’s words, “according to agential realism, knowing, thinking, measuring, theorizing, and observing are material practices of intra-acting within and as part of the world” (2007, p. 90). In the same way, Barad argues, meaning is not a synonym for language and “[it] is not ideational but rather specific material (re)configurings of the world, and semantic indeterminacy, like ontological indeterminacy, is only locally resolvable through specific intra-actions” ( 2003, p. 818 ). Presenting a panorama where nothing is determined prior to its relations to other things, this theory not only emphasizes the performative dimension of the material-discursive, but also renders possible the emergence of

becomings before unimaginable. In this sense, agential realism is a theory of creative entanglements, which are precisely the objects of this investigation.



## **Chapter 4. Methodology**

### **4.1 Introduction**

The questions that this research seeks to investigate do not point to pre-established truths but to answers that emerge from interactions. Similarly, Design-Based Research is concerned with knowledge developing from real-life encounters. This methodology also emphasizes the interdependence of theoretical and practical learning, provides a series of considerations for iterative research, and offers an approach on context and other nonhuman actors that make possible the observation of objects and materials participating actively in educational situations. With this in mind, I have designed and implemented exercises for the investigation of the relationship of materiality and meaning in two different art education settings following DBR guidelines. They resulted in collaborative spaces for research and creation where the settings defined possibilities and constraints, the participants could share their insights, and artworks and everyday objects played important roles.

In this chapter I elaborate on the concerns of Design-Based Research and their applications to my research questions and procedures. I dedicate special attention to the latter, mentioning why and how different instructions and tools have been implemented. To finalize, I outline the data analysis process to give way to the unfolding of the findings in the next chapter.

### **4.2 Design-Based Research**

Design-based research (DBR) “stresses the need for theory building and the development of design principles that guide, inform, and improve both practice and research in educational contexts” (Anderson & Shattuck, 2012, p.16). The objective of this research — designing guidelines for the investigation of the entanglement of materiality and meaning in

order to gather insights on the interdependence of knowing, making and becoming— aligns with the DBR’s reciprocal conception of practice and theory. This shared aspect is also a common strength: as pointed out by The Design-Based Research Collective (2003), “viewing both the design of an intervention and its specific enactments as objects of research can produce robust explanations of innovative practice and provide principles that can be localized for others to apply to new settings” (p.8). The position adopted by DBR comes from an observation of educational practices and their complexity, which cannot be fully grasped through theoretical research alone. As The Design-Based Research Collective denounces, “educational research that is detached from practice may not account for the influence of contexts, the emergent and complex nature of outcomes, and the incompleteness of knowledge about which factors are relevant for prediction” (2003, p.5). In fact, educational researchers’ interest in DBR’s flexible designs derives from the notion of knowledge that “respond[s] to emergent features of the setting” (The Design-Based Research Collective, 2003, p.6). This last argument also presents a linkage with the new materialisms that compose the theoretical framework for this research, which as well conceive that knowledge might not be fully determinable outside a specific interaction.

#### **4.2.1 Settings**

A defining concern of this methodology is being grounded in “real-world”, “messy settings” (Brown, 1992; The Design Based Research Collective, 2003; Anderson & Shattuck, 2012). This is why, instead of controlling the variables that characterize each situation — learners, teachers, educational researchers, teaching materials, learning environments, et cetera—DBR seeks to identify them and to investigate how they come into play (Collins et al., 2004). In the case of this research, one group of five participants engaged in two iterations of a workshop that took place in different settings. While the change in setting was intended

and previously defined, it was impossible to foresee all the unfoldings that could potentially take place in each space. It would have been difficult to imagine, for example, that the first workshop was going to be interrupted—and later rescheduled—by a fire alarm, and even if I had been informed that during the second workshop the museum was hosting visits for their volunteers, we still worked between and around an unexpected number of people in the gallery. These experiences came up later in the conversations with the research participants as they highlighted particularities of the setting and of the effects that other agendas may have on our learning objectives and outcomes. Having the same participants in both iterations provided fluidity to our conversations, yet each of them brought their particular approaches and experiences on the topics we discussed adding more layers of variability. Furthermore, coming from one workshop to the other we had all been confronted to some of our biases and were compelled to experiment shifting perspectives or find alternative ways to articulate our ideas and to relate to our surroundings.

#### **4.2.2 Design**

DBR is involved in “designing and exploring the whole range of designed innovations: artefacts as well as less concrete aspects such as activity structures, institutions, scaffolds, and curricula” (The Design-Based Research Collective, 2003, p.5). Importantly, the design principle it follows is that of flexibility and adaptability, this means that the designed artefacts may change vis-à-vis the choices made by real participants (The Design-Based Research Collective, 2003; Cobb et al., 2003). I designed a workshop consisting of three exercises and discussion moments. For each iteration, the exercises incorporated slight variations to respond to the contexts’ constraints and possibilities. All the exercises were designed to use artworks as well as found and everyday objects as materials. That is why, for example, I had chosen as the first activity for the museum workshop to collect materials

while in the first workshop the activity was based on instructions to interact with given objects: both exercises geared towards the awareness of the environment and the things that share that space with us as well as their potentialities. The activity of the second iteration had the dual intention of collecting objects that could be used in the subsequent exercise and that, contrary to the studio, could not be easily found in a museum gallery. I prepared other specific materials like instruction cards for the first exercise of the studio workshop that were written having the Art Education graduate studio and specific objects in mind and the bags required for the first activity of the museum workshop. Both contexts, the Art Education graduate studio and the Montreal Museum of Fine Arts, dictated institutional protocols that contributed to the delimitation of the borders of the workshop.

#### **4.2.3 Iteration**

Iteration is another key component of DBR, for it permits testing a design and its adjustments, consider different contexts and participants, and, in general, provides a more reliable framework of inference. Iterations are also key for the dissemination of the findings, even when the interventions make sense locally, insofar they clarify our understanding of the issue being studied. This, in the end, is what DBR strives for: “to inquire more broadly into the nature of learning in a complex system and to refine generative or predictive theories of learning” (The Design-Based Research Collective, 2003, p.7). In this research, iteration occurs through a change of setting, which gives way to the observation of the behaviour of the principles of the workshop I designed in different spaces, particularly how the idea of art education, art making and art thinking changes or not in response to context. To start, as I mentioned, the materials available and permitted in each space differ importantly. Also, the two spaces could be located in different places within a public/private spectrum, and as such propitiate different dynamics. Comparing and contrasting the two different spaces evidenced

their participation in meaning making and opened up a conversation on the relationship between art and place, be it the classroom, the studio, the museum, the art world and the outside world.

### **4.3 Procedures**

Two workshops were organized to happen in two different art education settings with the participation of students from the BFA specialization in Art Education of Concordia University in October 2017. While both iterations respond to the same workshop design, the procedures change slightly from one to another based on adaptations to space and revisions made after the first iteration. A pilot of the workshop took place before the first iteration with the collaboration of three of colleagues from the Art Education MA in Concordia University. This measure was taken in order to present a more polished workshop design to the participants of the research and to test ways to present the complex concepts behind the research as clearly and simple as possible, which was crucial for their engagement in the entire duration of the research. After the pilot, the workshop design was amended to include extra discussion time after the first exercise of the first iteration and a big paper to take shared notes thorough that session, and I planned a more directed and defined strategy for the exchange of objects during the main activity.

#### **4.3.1 Participants**

After obtaining approval from the University Human Research Ethics Committee (appendix 1), the participants were approached through an open call and participated voluntarily. Based on availability, the call resulted in five participants who all, as expected, participated in both iterations of the workshop. With their previous written consent, data derived from the workshops was gathered in the form of video, photographs, notes and follow

up questionnaires. In the consent form (appendix 2), each student chose to be referred to either with their real name or with a pseudonym. Based on that, here they will be referred to as Jackie, Jihane, Kaitlyn, Marie-Eve and Rana. It will not be specified which are the participants' real names and which are pseudonyms.

Being art education students, the participants had experience teaching and making art. Jackie is interested in exhaustively exploring different art mediums and techniques. Jihane is a painter whose process is inspired by found photographs and consists in making compositions that translate elements from medium to the the other. Kaitlyn is interested in exploring the potentiality and limits of materials through art. Marie-Eve works with collections of found objects that she re-articulates to explore the divide between manufactured objects and organic compositions. Rana's artistic practice explores questions of identity and emotions through painting. Their teaching practices are as broad as their artistic practices, and their experiences include work with children, adolescents and adults in schools and community settings. Jackie has shared that at the time of the research she was working with children with learning disabilities, which in her words, have taught her "how everybody's brain is wired differently" (personal communication, October 6, 2017). Marie-Eve has mentioned caring particularly for young learners and appreciating "that art can make you learn about anything" (personal communication, October 6, 2017). Rana along with Jackie considers that art provides valuable tools for expression that can help people that have difficulties expressing otherwise. Jihane appreciates teaching for the interactions it propitiates, as a space of coming together. These experiences have given way to conversations on what art is and can do, and allowed the participants to confidently comment on the workshop procedures and their potential application to other art education encounters.

### 4.3.2 Settings

The first workshop took place in the Art Education graduate studio in Concordia University, and the second workshop in an education studio and in the international modern art gallery of the Montreal Museum of Fine Arts (MMFA). Concordia is an anglophone public university located in Montreal, Quebec. Its Faculty of Fine Arts houses 9 departments and offers a wide variety of undergraduate and graduate programs that make it an important institution for the arts in Canada. The MMFA is the city's largest museum, hosting a collection of Quebec and Canadian art and early to contemporary international art among others, as well as an important education and art therapy department. The international modern art gallery, where the workshop took place, hosts a diverse array of works, including painting, sculpture and installation, that explore with styles, materials and colors oscillating between the traditional and the experimental. This gallery is located in the Peace Pavilion and has access to a large staircase with plenty of natural light and sitting spaces where we were able to gather and talk. The conjugation of the qualities of the space and the aesthetic elements explored in the artworks made it an ideal location for the workshop within the Museum. The procedures of the workshop and the work spaces in the MMFA were previously discussed and approved by a representative of their education department. Both settings are located in Montreal's downtown, a five minute walk from each other.

Besides attending to the iterative nature of DBR, the change of settings attempts to address specific underlying assumptions within the material and discursive practices that conform the field of art education. On the one hand, there is a recurrent separation of theory and practice replicated in the educational roles that the studio and the museum take. The workshop activities intend to challenge that separation by presenting art making and art thinking as mutually implicated, providing space for reflection and discussion, propitiating

unexpected interactions with materials, and encompassing text, action, bodies and everyday things in that category. This relates directly to my experience with art in that it addresses the creativity of art thinking as translatable to interactions beyond art making. The change has also provided valuable insights on the participation of space in knowledge practices as well as its categorizations as public or private, outside or inside spaces.

### **4.3.3 First iteration: Studio Workshop**

The workshop was designed to be developed in three activities: a warm-up, a main activity, and a closing activity. For the first iteration, which was also the first encounter with the main concepts and questions of the research, I included a section to define concepts as a group after the warm-up activity (see Table 1). The first attempt of the first workshop, which had to be rescheduled due to a fire alarm, gave only enough time for everyone to meet and introduce themselves. We went around and talked about our art practice and what brought us to art education. I explained that my interest in the research was motivated by my own experience in art education as a non-artist. I invited the participants to think of alternatives for art besides self-expression asking: what else can art do? We started the second attempt directly with the warm-up activity. It had as intention introducing the ideas of the body as materiality and of the performativity of objects, and to give way to discuss the dichotomies material/immaterial and animate/inanimate. It was inspired by Erwin Wurm's ongoing work *One minute sculptures*. We briefly discussed the piece which resulted in a participant-led inquiry, questioning whether the work lies in the documentation or in the action. The participants mentioned what stood out from the activity for them, mainly uncomfortable positions, what or when the positions could be considered sculptures, or one minute being “too much time” for certain actions. We proceeded to the second activity which consisted in defining the concepts of materiality and meaning and in thinking about where they meet. I



guided the conversation through questions and made links to the main objective of the research, which was stated during the first attempt and reiterated here. I suggested making a Venn diagram that had materiality on one side, meaning on the other side and a middle overlapping space that the participants attributed to art. Having these notes proved to be helpful during the following activities: the participants came back to revise ideas that they had written down, to add new things, and to link them with the works they made and the processes they followed. For the main activity the participants picked around 5 objects and/or materials found throughout the studio and made an arrangement with them. After that, they were asked to exchange objects by taking and adding from and to other arrangements and to make a final rearrangement. To close the session, the participants decided on a display of the five arrangements as an exhibition and we proceeded to have a conversation in the form of a critique. The participants expressed their difficulty letting go of objects during the exchange activity, and commented on questions that could arise from having the final works exhibited in a gallery, mainly how they come to be meaningful and if they would be considered accessible by all viewers. We also discussed the workshop in general and the possible applications of the activities and themes to their own teaching and artistic practices.

Table 1. Workshop Design - Studio

| Procedures   | Materials/<br>Equipement                     | Guiding questions/examples  | Time                        |
|--|--|---|-----------------------------|
| 1. Warm-up:<br>Inspired in Erwin Wurm's<br>One minute sculptures,<br>present props and guidelines<br>to interact with them.<br>Participants must stay in the<br>given role or arrangement for<br>one minute and then pass to<br>the next one until time is up. | Room furniture,<br>random objects,<br>timers | (After activity)<br>*Present Erwin Wurm's work<br>*Inquire about the<br>relationship body-objects.<br>*Discuss: What happens with<br>the definition or meaning of<br>an object<br>when it's being used in<br>unconventional ways? | 10<br>min<br>+<br>10<br>min |

|   |  |  |                  |
|---|--|--|------------------|
| <p>2. Defining concepts:<br/>Spread a big paper to provide a shared space for inquiry on the nature of materiality and meaning and the points where they meet. Participants and instructor work as a collective to establish common grounds. Participants can keep adding notes until the end of the session.</p> | <p>Big roll of paper, markers, pencils.</p>  | <p>*What do we think of when we think of materiality?<br/>* How does materiality come to make sense?<br/>* What is the place of art within the relationship of materiality and meaning?</p>  | <p>20 min</p>    |
| <p>3. Main activity:<br/>1. Pick objects/things<br/>2. Arrange them<br/>3. Exchange objects/things<br/>4. Arrange again<br/>5. Display</p>  | <p>Photographs, cut-outs, string, scissors, tape, toys, computer, books, newspapers, post-its, magazines, furniture, art supplies, anything else in the room</p> | <p>—</p>   | <p>30 min</p>    |
| <p>4. Critique / debriefing</p>   | <p>Display of arrangements/ pieces</p>   | <p>*Inquire about the criteria of selection of objects and about how it changed during the arrangements and exchange.<br/>*Share comments relating to individual pieces and the resulting display.<br/>* Discuss: In which ways could you incorporate these ideas to your teaching and artistic practices?</p> | <p>20-30 min</p> |

After the first workshop the participants were asked to answer a questionnaire and to email it back before the second workshop (appendix 3). The questionnaire included simple questions that the participants could choose to answer or not, and they were invited to add any questions or comments they considered pertinent. The questionnaire was previously

approved by the ethics committee and it was intended as a private space where they could share thoughts on their experience with the exploratory activities of the first workshop.

#### **4.3.4 Second iteration: Museum Workshop**

For the second workshop we agreed to meet in the Art Education graduate studio and go together to the museum. While we got ready to go, I mentioned to the participants a few possible contributions that new materialist perspectives could bring to the understanding of art education, mainly their considerations on ecology, on non-western ontologies and epistemologies, and feminism. This was a consideration that derived from the analysis of the first iteration as an attempt to give new tools to the research participants to approach the questions posited by the workshop exercises. As a way of adapting the workshop design to the change of setting, I planned an alternative to the previous warm-up activity to occur during our walk to the museum (see Table 2). It consisted in choosing a bag and collecting found objects. The participants were invited to add objects to their bags as well as others', and to consider photos, drawings, and text as materiality. They were given a notepad and pencil, and I clarified they could use their cellphones in case they wanted to use photos. Despite the changes, the activity still provided insights on the performativity and potentiality of materials, which was the objective of the warm-up activity of the first iteration. When we arrived to the museum we went to our assigned studio space and unpacked our bags. We discussed Mark Leckey's *The Universal Addressability of Dumb Things* as an example of an art work that consists of collections, and the students were invited to organize the found objects considering what makes the components of each collection to make sense together. For the following activity, they chose a few of the found objects to bring to the gallery space as potential materials. After taking a look around the gallery, the participants chose objects and artworks to work with and made an arrangement; we all visited the resulting works and

the participants proceeded to exchange objects as in the first iteration. The final arrangements were reassembled, and we toured around the gallery space for a few more minutes before going back to the museum studio to hold a closing discussion. This time we had the opportunity to compare both iterations so the guiding questions revolved around the different experiences of art education that take place in each setting and the relationship between knowing, making and becoming. Once again, the workshop was followed by a questionnaire (appendix 4) which was intended as a private space where they could share notes on your experiences participating in the research project and their impact in their art and teaching practices.

Table 2. Workshop Design - Museum

| Procedures  | Materials/<br>Equipement                                | Guiding questions/examples  | Time            |
|---|---|---|-----------------|
| <p>1. Warm-up:<br/>The opening activity takes place during the walk from Concordia to the museum. Each participant is given a bag (all bags are different in color, shape and material) and they are invited to collect found objects in their bags and others'. All kinds of things can be considered: quick notes and drawings, photos, and actual objects. Once in the museum everyone empties their bags and discussion and re-arrangement of collections starts.</p> | Bags, found objects                                     | <p>(After activity)<br/>*Present Mark Leckey's <i>The Universal Addressability of Dumb things</i><br/>*Discuss: How and why things make sense together?<br/>Should something be removed from a collection or replaced?<br/>Is there something missing?<br/>*Inquire about the relationship between container and content.</p> | 10 min + 10 min |
| <p>3. Main activity:<br/>1. Pick objects/things<br/>2. Arrange them<br/>3. Exchange objects/things<br/>4. Arrange again<br/>5. Display</p>  | Found objects, artworks, notes, drawings, photos, body, | —   | 30 min          |

|   |          |   |               |
|---|----------|---|---------------|
| <p>3. Closing discussion:<br/>The group comments the outcomes of the activity and discusses the the different forms that art education takes in the studio and in the museum.</p> | <p>—</p> | <p>*Share comments relating to the processes of selection, exchange of objects, and resulting pieces.<br/>* Discuss: What connections emerge in the museum activity between outside/everyday world and the museum/art world? How does the activity and other visits to the museum challenge the division of theory and practice, thinking and making art? Can looking at and thinking of art be creative and generative engagements? What part do these play in art practice?<br/>*In which ways could you incorporate these ideas to your teaching and artistic practices?</p> | <p>40 min</p> |
|---|----------|---|---------------|

#### 4.4 Data analysis

The iterative nature of Design-Based Research often leads to different kinds and sources of data, as is the case in this research. The diversity of data has been beneficial for triangulated analysis, which, as The Design-Based Research collective points out, is particularly useful in educational research “to connect intended and unintended outcomes to processes enactment” (2003, p.7). The bipartite aspect of this research has also presented the opportunity to compare and contrast outcomes across iterations. This comparative approach has permitted to conclude identifying structural problems of the design, its strongest aspects, and a general sense of its adaptability.

Following *The Coding Manual for Qualitative Researchers* by Saldaña (2009), the data was coded in two cycles, then recoded and translated into categories that serve as the basis on which ensuing theory is built. An initial set of codes was extracted from the research

questions and objectives that guided the research. They were: relationship, separation, art education issues and definitions. They were used during and after the first iteration to analyze the workshop design focusing on how it contributed to understanding materiality and meaning in relationship or not, and pointing to a series of adjustments. After the second iteration, the initial codes were studied in a triangulated analysis against the different kinds of data and new codes emerged. The process of recoding helped to refine the understanding of the initial codes, pointed towards what brings things to make sense together like agency, potentiality and affect, and gave a closer attention to processes and procedures. As a way of a summative analysis, the two iterations were analyzed comparatively using the final set of codes. Next chapter will discuss the results of the analysis.

## **Chapter 5. Findings**

### **5.1 Introduction**

In this chapter I develop an analysis of the data gathered from the research. To start, I present a summary of the two workshops expecting it will act as a frame of reference for the points developed afterwards. The following section gathers the participants' experiences of the workshops as understood from the two-moment analysis explained in the previous chapter, in an attempt to represent their perspectives as well as the observations of the researcher. Circling back to the initial research questions, the section revises the relationship between materiality and meaning and the place of materiality in art education. Building on that, the next section is a new materialist reading of the data dedicated to curricular and theoretical considerations that ensue from the research. A brief summary of the research and the key findings closes this chapter and marks the end of this thesis.

### **5.2 Overview of the two workshops**

In this research I was interested in developing and implementing a workshop in two iterations to gather practical and theoretical guidelines for the field of art education informed by new materialist theories. The overarching theme of investigation were the different articulations that the relationship between materiality and meaning can find through art making and thinking. Through various exercises, the workshop participants were invited to consider alternatives to the relationships where we—humans, artists, spectators—project meanings onto artworks and other things, or where meaning is already there, hidden within things, and in order to access it we need to uncover it. The participants also contributed to the research through conversations surrounding the questions of why it could be valuable to look for those alternatives and how else could materiality and meaning come together.

The first iteration of the workshop succeeded at introducing the subject of materiality, and confronting the participants with the idea of performativity in relation to objects and materials, as well as the implications of thinking about the body as a material. However, the discussions held at that moment generated uneven conclusions from one participant to the other. Attempting to define materiality proved to be a complicated task, since the conversations easily turned to conflict with or stopped at preconceptions of the term. For example, the difference between materiality and art materials was at times confusing. Furthermore, the participants' uncertainty of how to approach the questions on materiality during the definition exercise pointed towards adjustments needed for the next iteration. Despite all this, by the end of the first workshop the participants found themselves in a common ground where different perspectives, which consisted primarily of considering the performative potential of materiality, met.

When discussing the applicability of the procedures and themes for art and teaching practice, the participants brought forward their perspectives on what worked and what did not. Based on their experiences as art teachers and students, they had different ideas on what the objectives of art education are. Some of the participants were more interested in experimentation and play than others, who favoured theme oriented teaching. The latter advocated for more guidelines in the way the exercises should be conducted and for clearer objectives stated up front, while the former pointed out opportunities where meaning could emerge and were optimistic about the possibilities of non-traditional art forms, like performance, in art education. In general, the participants expressed observing their relationships with art materials changing as a consequence of the interactions with materiality that the workshops propitiated, and feeling more open towards the artistic potential of everyday objects and non-traditional materials. They expressed interest in applying their



findings to other aspects of their artistic processes and teaching practices, mainly in the form of preliminary explorations and aesthetic research.

Another thing that stood out from the experience of the first workshop was the centrality of human subjectivity and perspective in our understanding of materiality, meaning, and what art can do. Despite having discussed the objectives of the research and what we can consider as materiality, the participants, in their speech, often opted for formulas like “I do”, “I mean”, and “I choose” when analyzing the main exercise. Anticipating this, I briefly addressed that there are linguistic and epistemological limits that impose those formulas on us and everything else. This showed to be the most difficult preconception to negotiate with, but during the second session, probably when the ideas discussed had settled in, participants naturally started employing active language to refer to objects. Along these lines, the participants insisted in the importance of self-expression for art education so it was considered as a key issue of reflection between iterations.

To address the changes needed for the second workshop I decided to take a moment to remind the participants about my personal approach to art, that is that as a non-artist I am interested in different things art can do besides self-expression. With this, I intended to invite the participants to consider the creative potential in how art comes to matter in different interactions, inside and outside of the studio, with and without art materials, as well as to rethink how the terms of their participation in processes of meaning making are established. I also took a moment to share new materialist views on how the questions or things that we were trying to address could relate to bigger things, mainly how thinking about humans and nonhumans as active makers and signifiers of the world might be a way towards more comprehensive ethics and politics.

The second workshop worked to strengthen the idea of the materiality of our bodies and of space. The participants became comfortable with that possibility, they could understand its implications and develop it further. Shifting settings, including the outdoors exercise during our walk from Concordia to the MMFA contributed to the awareness of what is around us, how we affect and are affected by space. In general, it became more evident during the second iteration that the participants were engaged in understanding the relationship of materiality and meaning by observing that things call us and other things, and how they make sense together with and without us.

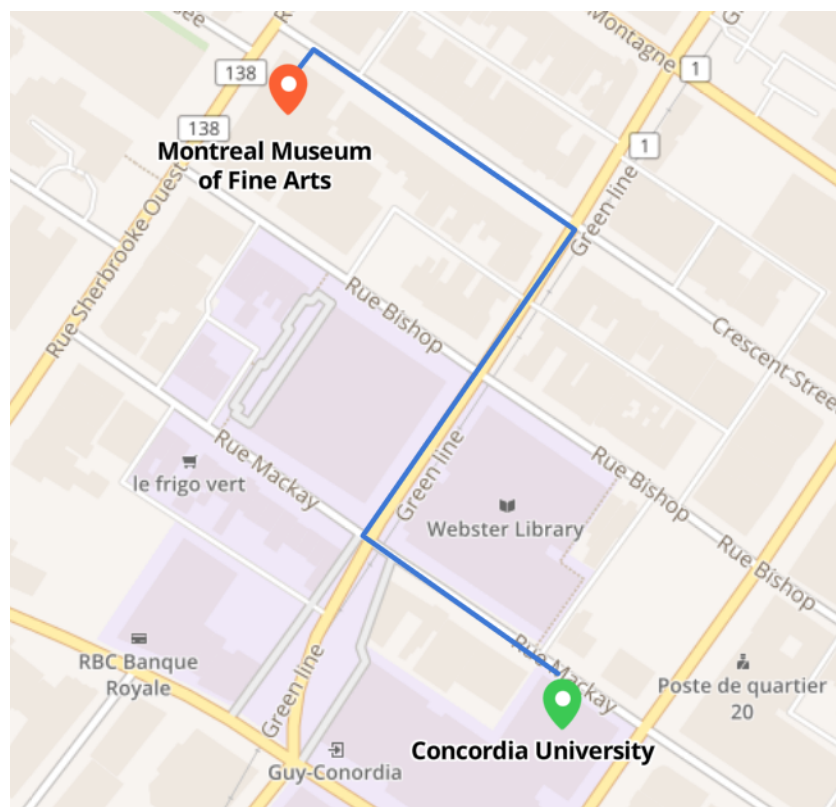


Figure 5. Walk from Concordia to the MMFA

### 5.3 Defining materiality

Working with the participants to define materiality was an important task since it constituted the basis of an exploration into what it is, what it can do, how we conceive its relationship to meaning, and how different definitions have different implications for art

education. As mentioned before, the concept seemed so close to us that we could point to anything and it would be materiality. Yet, when trying to do the same with words it was not so easy to pin down without excluding an aspect that we judged important or including something that felt foreign. When we speak of materiality, we can be talking about materials, anything that can be used to make something else, or we can go as far as including everything that takes a place in space. Still, these definitions do not account for questions around our place in or as materiality. Then we came to the agreement that materiality can encompass living things, which in turn demanded us to consider the implications of thinking about our bodies in the same plane as other bodies or things in the world. In our definition, we also acknowledged non-physical forms of materiality like time and content, and, as Jackie<sup>6</sup> puts it, “some materials like movement that is physical but it is ephemeral” (personal communication, October 6, 2017).

The challenge of defining materiality is also present in the new materialist turn as a result of its diversity, as explained in the previous chapter, and it could be an evidence that materiality has mutable boundaries. The conclusion we reached at the end of the first workshop articulated that materiality can be everything and nothing, which carried the realization that it defies concrete definitions. This stand pointed towards an understanding of materiality as potentiality: it can be everything and nothing if its borders are only drawn in the enactment of relationships of things and ideas.

This potentiality is expressed in Jihane’s words “basically, objects can do other things” (personal communication, October 6, 2017), which in turn demand that we look for that which defines what it can do. Although not exclusively, the participants tended to refer to

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<sup>6</sup> Some participants chose to be referred to with a pseudonym. It is not specified which are real names and which are pseudonyms.

ideas like intention, purpose, use, and thing-to-me in these attempts. For example, Kaitlyn said “I realize now that materials and materiality in artworks are used very broadly and take on countless meanings as they apply to the artist's intention” (personal communication, October 12, 2017). These formulations enter into conflict with the premises of the research since they present meaning as given, from a human agent to inert materiality, instead of as distributedly enacted in relationships between humans, objects and discourses. Still, rather than proving them wrong, these attempts make visible the effort to address the agency of materiality and how it participates in the performance of its own borders and provides evidence that an epistemological and ontological shift might be necessary to grasp what is escaping. The following exchange is a good example (personal communication, October 6, 2017):

- Marcela: (talking about Marie-Eve’s piece) So maybe we could ask: what does the cushion have to do with a leg of a chair?
- Marie-eve: That’s when you look at the meanings of the actual intention of the object or the purpose of the object.
- Kaitlyn: Or even implication, like what it could mean if maybe you don’t know it yourself.



Figure 6. Marie-Eve's arrangement during the studio workshop.

### 5.3.1 Materiality and meaning

Karen Barad states that “‘material’ is always already material-discursive” (2003, p. 824). Through the concept material-discursive, Barad (2003, 2007) explains that materiality is performative and that discourses do not precede it, but rather matter and discourse co-constitute each other's temporary borders in different causal structures that respond to the relationship itself rather than predetermined material or discursive constrains. This way of thinking materiality together with—and not instead of or after—meaning can contribute to our understanding of the potential of art beyond representation as well as the participation of space in meaning making.

This reciprocity was experienced in different ways throughout the exercises. During the warm up activity of the first workshop that was inspired by Erwin Wurm's *One Minute Sculptures*, we observed an interaction between written instructions and objects. Although the

text referred to specific objects, there was not a representative correspondence between them, but rather a set of possible articulations that materialized differently in conjugation with each participant. Similarly, the before mentioned works by Fischli & Weiss present everyday objects in unconventional installations next to textual winks in the form of titles suggesting that neither the things nor the words that conform the titles are determined outside of their relationship. With this in mind, I invited the participants to name their final arrangements during the first workshop. Jihane, for example, said “mine is *Push-up*,” to which Marie-Eve responded “it’s true!” (personal communication, October 6, 2017) (see Figure 7). Through these sort of puns we discussed how, in relationship, words and things can mark connections, absences or shadowy presences.



Figure 7. *Push-up* by Jihane.

These examples highlight that language is material and vice versa, that materiality speaks. Still, it is important to consider Barad’s warning: “discourse is not a synonym for

language” (2003, p.819). Language is one form of discourse but discourse as practice is not limited to it. Analyzing other forms of discourse in relation with materiality during the second workshop Jackie observed (personal communication, October 13, 2017):

The bags are so random and not that interesting. Then we picked up garbage-y things and we placed them in front of objects that are made of similar materials but are so elevated, like Rothko or Picasso, the ultimate elevated image/object, and it’s really funny. Ironically right next to it is Andy Warhol’s soup making a fun little play.

Jackie’s comment introduces a sense of contingency in the relationship between materiality and meaning, marking a causality that is defined by proximity or locality, where local refers not to a location in itself but to a set of potentialities, constraints, ambiguities and affects. In this case, the local is marked by the becoming “ironic” and “funny” of attributed values of modern art when they are put in relationship with what Jackie calls “garbage-y things”. The same idea is also explained by Marie-Eve (personal communication, October 13, 2017):

The difference between last week and this week is that this time the objects that we picked and found were to work with something that was already there. Whereas last week we were bringing them together and bringing something out of nothing, now we’re making something from something else. And not only were we pairing our objects with already made meaning, but combining the material and objects that we found with more conventional art materials and how they work together too. That stood out to me.



Figure 8. Rana's arrangement during the museum workshop.

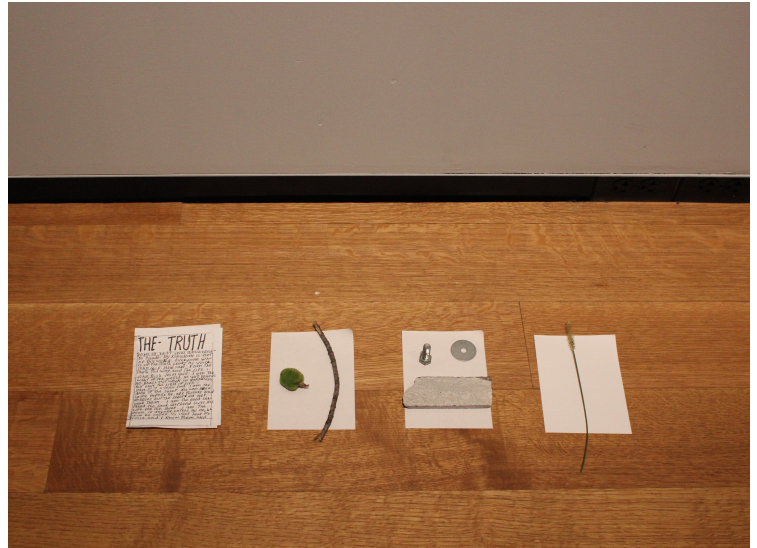


Figure 9. Detail of Rana's arrangement.

This sense of contingency is important insofar it allows things to shift with their relationships as it encompasses, and as Barad also explains, that matter comes to matter in iterations of intra-actions (2007, p.225). The bag exercise provided an excellent framework for participants to explore those mutable relationships. When pointed out, the participants realized how their criteria of what things to pick and where to put them was often defined by proximity or by personal predispositions. They also observed how constraints emerged and marked things like wrongness or misplacement. Jackie said: “I did try putting things in the wrong bag. I tried putting in your school bag something. It was not intentional, it was the nearest thing to me” (personal communication, October 13, 2017).





Figure 10. Drawing of “your bag” during warm up exercise of the second iteration.

The causal structure that emerged when carrying out the workshop at the museum was enacted by everyday objects, art and the research participants, as mentioned before, but also by museum visitors. Jihane said: “It was fun today because we had viewers, there were other people there that would stop and look what was on the ground and were curious about it, so I think that added a layer. That was interesting” (personal communication, October 13, 2017). To account for this, Barad (2003, 2007) speaks of phenomena instead of things since it considers the entanglement of all elements that come into play in how matter comes to matter. She emphasizes that there are no observerless observations. That is, human and nonhuman observers are always already participating in material-discursive practices and thus simultaneously shape and take shape within them. In the same vein, Barad (2007) explains that the mechanisms through which phenomena are observed are also participant, including tools and their settings as well as the criteria and standards they consider. Rana’s final

arrangement for the first workshop explored how knowing, making and being do not occur outside of the world, but are part of it, mirroring how art education settings are the integration of “a particular being in a limited space, where materials define what would be done in there” (Rana, personal communication, October 6, 2017).



Figure 11. Rana’s arrangement during the studio workshop.

### **5.3.2 Materiality in art education**

The different articulations of the relationship of materiality and meaning that emerged from the exercises and conversations unfolded potentialities for both representational and performative approaches for art education. Despite the contradictions that they presented, they offered opportunities to explore learning and making with things, and to imagine new relationships between subjects, objects and spaces. Working iteratively in the studio and in the museum also made visible some of the implications for pedagogy and artistic creation of understanding knowing as part of becoming, and theory and practice as mutually implicated.

Closer to what is proposed by material culture studies, at times the participants showed their interest in objects based on their potential to tell and preserve human stories. Jackie, for example, was concerned about the translation of ephemeral gestures into more permanent surfaces, like photographs. Contrary to Barad's proposal, this position supposes a correspondence between ideas and objects, and thus that they are not mutable but well bounded and determined regardless of the relationships they might encounter with other things. Jackie elaborated that this concern relates to her understanding of what art is and can do, tending towards considering that things might matter more than ephemeral gestures. Rana similarly expressed, "I feel that for me those kinds of artworks (random objects put together) could be used as an activity before creating an artwork rather than an artwork itself" (personal communication, October 12, 2017).

As mentioned before, the participants repeatedly expressed their inclination to art education as a space for self-expression. They mentioned how art offers potentialities for expression that might not be available through other mediums, and they appreciated realizing that, as Rana says, "any object around me could be used as an art material, including objects that are not usually used as an art tool but instead for their usual function" (personal communication, October 12, 2017). This approach to art education posits that objects are at human service, yet the new curiosity is already an attempt to understand, as education researcher Luke Bennett (2016) puts it, "the world *with* us". That is, despite its utilitarian wording, Rana's view of artistic work "show[s] to be a co-creation of the resistances and affordances of matter and of ideas enacted upon it" (Bennett, 2016, p.15). On the other hand, art education is not only about art production. As Jihane pointed out when referring to what she looks for in teaching art: "I like the connection, just being there with people, the interaction. I think I was missing that from just doing my own art, I need that" (personal

communication, September 29, 2017 ). I regard this as important insofar it can open up ways to thinking about plural, performative becomings that might be closer to Barad's material-discursive practices. Thanks to the participants' continuous emphasis on the importance of self-expression in art education, I reconsidered it based on its potential as a space where relational becomings could emerge.

Reflecting on their art and teaching practices, the participants identified different expressions of the performativity of materiality. For one, thinking about the materiality of their own bodies led to conceiving them in a plurality that encompasses more than human bodies, as explained above in the human and nonhuman relationship of co-creation. This has also shown to be important insofar as it introduced potential for agency in nonhumans, as expressed by Jihane in a conversation about the final arrangements of the first workshop: "I like the measuring tape, really pulled out a lot, *demonstrating* those weird angles with the chair, it looks pretty cool." (personal communication, October 6, 2017) (see Figure 5).<sup>7</sup> Furthermore, human and nonhuman co-creation presents aspects of their co-constitution that contribute to our understanding of knowing and making as part of becoming. More importantly, the participant's account of this relationship allows for iterative becomings which is significant for understanding how art comes to matter. In Kaitlyn's words "it's not just the becoming of you as a person, it's also your artwork and perhaps even what it becomes to other people, because I think what the other people see influences what it will become" (personal communication, October 13, 2017).

Putting together participants' comments around the role of the unexpected, unconventional, humour and play in the workshops I observed an emerging set of methodological suggestions to explore art as a space where subjects, objects, materiality and

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<sup>7</sup> I have added the emphasis to mark active language.

meaning can find different articulations. Besides their practical applicability, the comments offer insights on the performativity of materiality from the perspective of art education. The workshop activities invited to use or approach objects and materials in unexpected and unconventional ways. This was associated to play by some of the participants in the sense that by approaching them this way, things hold the potential to be other things and not correspond to their initial purpose. Marie-Eve, who was particularly interested in this association, also understands play as an experience that is focused on experimentation and process rather than the outcome. Concerned about how to teach this, she mentioned: “it almost makes you want to get [students] warmed up to not having a problem in mind” (personal communication, October 6, 2017 ). Jackie also highlighted this playfulness and was interested in humour as an inviting way to make connections between things (personal communication, October 6 and 13 2017).

Based on the different encounters between bodies, actions, and things, we were also able to reflect on how things affect each other. The participants were excited to see that sometimes things just worked well together, and how one thing can contribute to bringing out characteristics of another or vice versa. This sense of complementarity is consciously or unconsciously present in many aspects of art practice, particularly in composition and in curatorial work. The exchange dynamic of the main activity added a level of complexity to this kind of work that contributed to our thinking about how art makes sense and our different roles in it. Most of the participants agreed that it was not easy to let go of their original arrangements, that despite the randomness that seemed to bring the things together, they felt meant to be. The following exchange is a good example:

- Marie-eve: This has been a learning experience for me to learn to let go of meaning sometimes, to let it change. The minute you took I was like “Oh no!”. Then I got used

to it again, and last week too it was the same thing. “No not that, the screw!” I really had like a static meaning and you changed it.

- Kaitlyn: Exactly what I was talking about in the beginning. I was so fixed to what I was creating in the beginning and then at the end what happened? What is that jolicoeur sticker has to do with..? [laughing]

- Marie-eve: But in the end, the work you chose was about the relationships between people, so the actual experience of it changing and the different people affecting your work did end up having a meaning that stayed.

- Kaitlyn: You’re right, it didn’t cross my mind, it’s true.

- Marie-eve: That’s it... Our bodies were part of it, you know?

The exchange of things allowed to reflect on how to let go of meaning and prompted us to think of strategies to focus on the experience and the process of seeing what happens when different things are brought together, rather than imposing a meaning through interpretation or predetermination. This exercise also brought valuable insights on how humans and nonhumans affect each other, that is, how being together means participating in each other’s learning, work and becoming.



Figure 12. Kaitlyn’s arrangement during the museum workshop before the exchange.

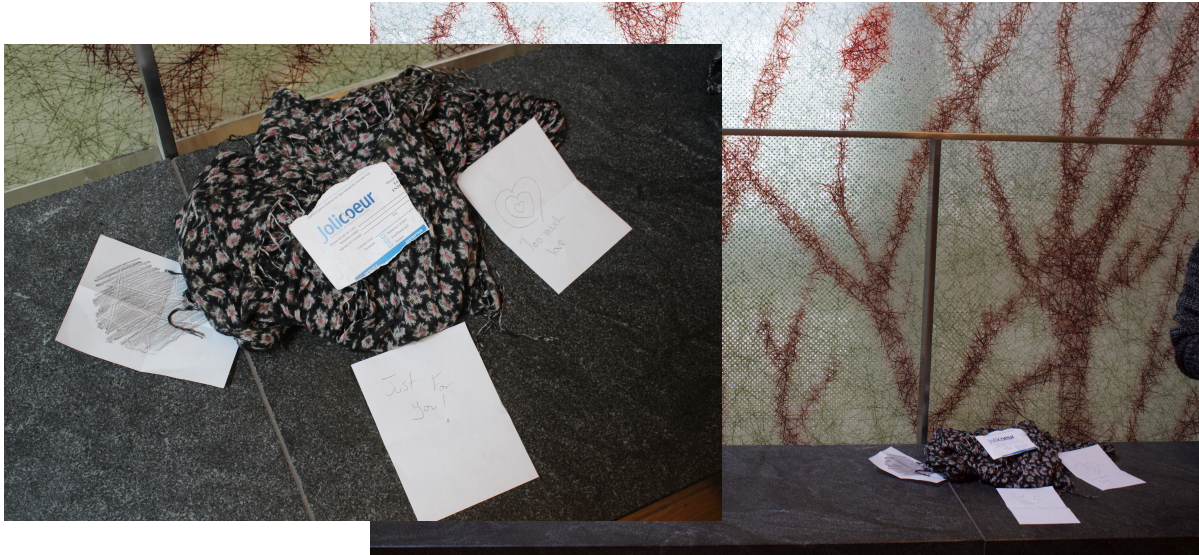


Figure 13. Kaitlyn's arrangement during the museum workshop after the exchange.

#### 5.4 New materialist notes for art education

One of the main questions this research asks is how new materialist thought can contribute to our understanding and practice of art education. With this in mind, I have developed theoretical and curricular insights that emerge from the analysis of the workshops and readings of new materialist theories. They are organized in three lines of inquiry: Art is in the middle, intra-actions in art education, and diffractive pedagogies.

##### 5.4.1 Art is in the middle

As mentioned in the previous chapter, during the first workshop we organized ideas in a Venn diagram with one circle marking materiality, another marking meaning, and an overlapping space that the participants attributed to art. From this I ask: What could it mean that art is in the middle? What are the implications of this situation for our understanding of what art is and can do, and thus for the field of art education? In the introduction of their book *New Materialism: Interviews and Cartographies*, Rick Dolphijn and Iris van der Tuin observe that “it is the action between (and not in-between) that matters” (2012, p.14).

Translating this idea to the case of art, I can say that it matters not as a synthesis of meanings

and materials, but rather that art takes place in the middle of enacted symbols, discourses, intentions, affordances and resistances.

To take this analysis further, I would like to remit to the notion of entanglement and introduce the idea of apparatus as developed by Barad. Paying attention to the consequences of having no observerless observations, Barad (2007) contends that apparatuses are not simply set-ups that delimit conditions of possibility, but rather material-discursive practices. Seen this way it is possible to say that art and art education, their disciplines, their discourses, and their individual and collective practices conform an apparatus. Continuing on this path, Barad (2007) elaborates that the distinction between objects and agencies of observation is enacted or embodied in the apparatus rather than in subjects and objects themselves. This shift is meaningful insofar as it explains the inseparability of ontology from epistemology. Art as an apparatus is in the middle, mediating how things are known and drawing the contours of what is known.



Figure 14. “Bien fait” bag during the warm up exercise of the second iteration.



This implication of apparatuses with knowing and becoming has been discussed before by Haraway in “Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective” (1988). In this essay, Haraway asks about the place of objective knowledge challenging both the philosophies of language and discourse that put material world in a second plane, and the notion of Science as the only way to reach objectivity. Haraway argues, on the other hand, for an account of embodied knowledge that would posit that only partial perspectives can allow objectivity (1988, p.583). From this standpoint, objective knowledge is always a materialization of specific perspectives and particular arrays of possibilities, rather than transcendental and unmediated. Embodied knowledge is relational and not relative, because relativity does not account for the mutual implication of objects and the agents of observation. Haraway warns that, while partiality and embodiment always imply a location, the location is never fixed in a specific body, relationship or apparatus (p. 589). The relationality of embodied knowledge requires positioning and acknowledging the different agents of mediation. Haraway says: “ I am arguing for a view of the body as always complex, contradictory, structuring, and structured body, versus a view from above, from nowhere, from simplicity” (p.589). The location of art in the middle is also always partial and embodied in particular human and nonhuman complexities and contradictions, materials and intentions, and in specific classrooms and museum galleries. I rescue this with help from Haraway as much as from the discussions held with the participants that I have unfolded above as accounts of the contingency of knowledge and point to this partial vision rather than a vision from everywhere or nowhere. Furthermore, this speaks for the participants’ emphasis in art as self-expression, insofar as a enunciations from specific positionalities within processes of meaning making.

#### **5.4.2 Intra-actions in art education**

Barad's neologism "intra-action" offers an accessible and condensed understanding of the relational account her theory presents making it a suitable conceptual tool to think about different relationships of mattering in any field. Following the findings of this research, I would like to ask: What does intra-action look like in art education? What implications can the concept have for the way it is understood and practiced? For one, it might contribute to our understanding of the significance of shifting from a representationalist to a performative paradigm. This would reflect on our conception of the effects of other things on us and vice versa, as well as on our learning and our making. With this research, I was particularly interested on how this concept might allow for an expanded notion of personhood or subjectivity that offers possibilities to think without the human in the center, as well as what it could show us about how things make sense together.

Through the notion of intra-action, Barad stresses that "knowledge is a distributed practice" (2007, p.342). That is to say that knowledge includes a larger array of humans and nonhumans, and, because of that, it is better understood as a material than as an ideational practice. Furthermore, for Barad (2007), objects emerge from intra-actions, they do not pre-exist them but their boundaries are drawn within them. As such, objects are not always already apprehensible by subjects, but are constituted by and constitutive of other objects and subjects who cannot take place outside relationships either.

This explanation implies that things and people have an equal potential of becoming agents of observation and objects. By reflecting on the materiality of our bodies that occurred in different forms during the workshops, the participants were able to draw symmetries between themselves and other things. For example, they expressed feeling like an object in certain positions, they observed objects acting with them and started employing active

language to address it, and they referred to nonhuman things as “physical entities” more than once (personal communication, October 6 to 13 2017). To quote Marie-Eve:

some of [the exercises] make you feel inanimate, and others make you come to life. That’s what I found interesting. Some make you feel one with the object and others can make you feel like you’re using the objects for something (personal communication, October 6, 2017).

Starting by presenting becoming as an unfolding of otherness within, these approximations allow for different relationships with otherness to emerge. Regarding emergent relationships, Barad (2007) develops a notion of touch as a primordial encounter with an other that gives testimony of a mutual acknowledgment and gives way to mutual constitution. Touch in this sense can contribute to understanding the role of the apparatus of art and art education in the conformation of subjectivities and objectivities, and the implications of situating knowledge of selves and objects within the field.

Following Barad’s warning that “touch is never pure or innocent” (2012, p. 215), I am interested in recurring to her and Haraway’s notions of responsibility. In short, Barad (2012) employing at times the neologism “response-ability,” points to the responsiveness of materiality that could take the form, for example, of resistances and allowances. Similarly, Haraway is concerned by how, in her words, “positioning implies responsibility for our enabling practices” (1988, p.587). As many new materialist theorists, these authors make a case for ethical knowing and becoming. Responsibility from both perspectives stresses that it is not only a question about the material effects on us, but also of our effects on other material forms. In other words, acknowledging that knowledge is not unidirectional still requires care to give space for responsible practices (Bozalek et al. 2016).

From the perspective of art education research, Garoian (2015) suggests approaching this performative account of all the actors involved in practices of knowledge through the idea of the prosthesis. Through this term, he addresses mediators such as tools, materials and institutions, that constrain, enable and disable, and presents a sense of embodied knowledge that occurs together with them and their implications. During the warm up exercise of the first workshop as well as through the exchange dynamics it was possible to observe being with objects in a prosthetic sense rather than utilitarian sense. Furthermore, as in the above cited exchange between Marie-Eve and Kaitlyn, the participants could experiment not only their object or material side, but how part of them is outside of the boundaries of their bodies in the things they know and make.

Although the way in which these effects are studied by other theories falls outside of the scope of this research, I recognize that the approach of affect theory has been very influential for the development of many new materialisms and that it can bring valuable observations for our understanding and practice of art education. I am particularly interested in how this theory can account for the way things make sense together even when we cannot point to why or what makes them make sense since this feeling or hunch was expressed by the participants in various occasions. The undeterminability of affect rearranges the causal relationship between theory and practices in a way that requires us to think of how an uncontained or exceeding agency participates in knowledge and learning practices. Art education researchers Stephanie Springaay and Zofia Zaliwska say: “Art’s thinking is not in the creation of meaning but in the particular intensity of sensation that it brings about” (2017, p.277). It is also in this light that Jane Bennet (2010) develops her notion of the agentic assemblage which thinks together Spinoza’s affective bodies and Deleuze and Guattari’s

assemblage, and could bring interesting insights on the arrangements made by the participants during the workshops and their situation in the two art education settings.

### **5.4.3 Diffractive pedagogies**

The term diffraction has been employed by Haraway as an alternative to the reflective practice of knowing and becoming. Haraway explains:

reflexivity, like reflection, only displaces the same elsewhere, setting up the worries about copy and original and the search for the authentic and really real. Reflexivity is a bad trope for escaping the false choice between realism and relativism in thinking about strong objectivity and situated knowledges in technoscientific knowledge (1997, p. 16).

For Haraway, opting for diffraction is a way to continue with an optical metaphor, yet presenting a phenomenon of intersections and interferences rather than re-presentations, concerned with things meeting and affecting each other. Barad contributes to Haraway's metaphorical and methodological understanding of the term by rescuing the implications that the study of the nature and behaviour of light has brought for physics. That is, different experiments on diffraction have raised what physicists call the wave-particle duality paradox showing how, under certain circumstances, particles behave like waves and waves like particles, and marking that there is not an ontological but a relational difference between the two (Barad, 2007). Added to that, the variety of results that responds to the specificities of each circumstance also reveals how the measurement devices participate in the constitution of the outcomes of each experiment. In summary, this term allows both theorists to switch from a representational to a performative account of knowing and becoming as it introduces a sense of indeterminacy that requires for them to occur in intra-actions.

Haraway and Barad consider that it is also helpful to think in terms of diffraction insofar it introduces difference as integral in knowing and becoming. From this stand, difference is not seen as an exception because it is not measured within a reference of sameness, in the way a reflective, representational approach would. Barad explains that diffraction patterns “illuminat[e] the indefinite nature of boundaries—displaying shadows in “light” regions and bright spots in “dark” regions” (2007, p.93), that is, that boundaries are not sharp or static but a performance of an interference or superposition. In this sense, difference marks the potential for becoming in relation (Barad, 2007, p.72). For Haraway this relates to the partial and situated sense of objectivity she advocates for, and responds to her experience as feminist scientist witnessing how apparatuses are not neutral. Both authors are interested in the way diffraction spreads transversally and creates patters of inference in multiple directions, allowing for different spaces of interaction of otherness. Difference as not ontologically determined but enacted is dissociated from a negative sense and brings about a recognition of iterative and continuous becoming.

Diffraction as a methodology is employed by Barad and Haraway in order to analyze things transversally. For example, Barad talks about reading diffractively as a way of analyzing insights through rather than against one another, in order to

engage aspects of each dynamic relationality to the other, being attentive to the iterative production of boundaries, the material-discursive nature of boundary drawing practices, the constitutive exclusions that are enacted, and questions of accountability and responsibility for the reconfiguring of which we are a part (2007, p.93).

In the field of art education, Hickey-Moody et al. argue for the “disruptive and generative potential of diffractive pedagogy as an example of the type of learning that can take place when materiality and entanglement are considered as vital constituents” (2016, p226).

Diffractive pedagogy understood in this sense is built as a metaphor of the phenomenon's alternation of constructive and destructive interference to allow for knowing and becoming that matters in relationship with obstruction and superposition.

While this research was not originally formulated in those terms, in retrospect it is possible to say it was developed through a diffractive pedagogy. Concerned with observing how things making sense together, the participants engaged in what I initially called relationships of unlearning in the form of resistances and concessions regarding emerging meanings, unexpected exchanges and “weird” encounters. As Barad points out, we do not learn about preexisting things but about phenomena, that is, we do not only encounter material consequences but material engagements (2007, p.90). Rather than unlearning then, these encounters are better understood as exercises of redrawing boundaries, and they are made possible by a pedagogy of diffraction understood “[a]s a material practice for making a difference, for topologically reconfiguring connections” (Barad 2007, p.381). Using objects and materials in unconventional ways showed to generate patterns of interference that unfolded particular and situated becomings. The metaphor of diffraction as applied to this example can stand as an opportunity for pedagogy and creativity insofar it invites to reshuffle the potentialities of materiality and meaning. Added to that, in the case of this research, the emerging diffraction patterns highlighted specific actualizations that could tell us about how things come together while presenting the enacted ways of being as a possible iterations within many. Furthermore, a diffractive pedagogy was in place challenging the participants' and the researcher's preconceptions of the nature of materiality and meaning and how they come together in art encounters to allow for emerging and unexpected articulations.

## 5.5. Conclusions

The objective of this research was to investigate the relationship of materiality and meaning in art education settings. It followed the premise that meanings are not given to things but emerge in human and nonhuman intra-actions (Barad, 2007). Through two iterations of a workshop developed with the methodology of Design Based Research it was possible to study ways in which this occurs in art education encounters. As marked by this methodology, the observations made by the research participants—five pre-service teachers studying the BFA specialization in Art Education of Concordia University—based on their experience as students, art makers and teachers represented the core of the data and pointed towards applications of the research to future educational encounters. The activities and conversations that took place as well as their analysis were informed by new materialist theories. That is, the research was concerned with thinking of new ways and reconsidering learned notions to think about and with materiality. Together, the methodology and the theoretical framework presented an interobjective approach that made possible grasping the participation of educational environments, materials and discourses in practices of knowing, making and becoming.

Throughout the workshops it was possible to observe that our understandings of materiality and its relationship to meaning are deeply rooted in and performed by the way we position ourselves in the world and thus our learning and teaching. Some of the propositions of the participants contradicted the premise of the research positing an ontological and epistemological separation of subjects and objects, yet they were revealing of intimate structures of material relationships and, as such, presented opportunities to look for alternatives within. For example, while the workshop invited the participants to think about what art can do besides being a medium for self-expression, the participants' observations



highlighted its importance for art education showing that it would be valuable to ask how it could account for relational knowing and becoming. Furthermore, the presence of these contradicting perspectives in the enactment of the workshop activities created patterns of interference or diffraction that (re)configured the possible connections between materiality and meaning (Barad, 2007). That is, as different expectations and resistances met, they performed emerging conditions for mattering as well as specific unfoldings.

Working in two different art education settings has taught us about ways in which artworks, contexts and discourses can come together, and that they all occupy mutable yet constitutive roles in the causality of their relationships. The idea that art takes place between materiality and meaning points to the participation of those spaces in how art takes shape and meaning. The proposition situates art and in doing so it emphasizes its coming into being relationally, performatively and contingently. Ontologically and epistemologically, this marks art as an entity that matters—in the double sense of the word—within phenomena, that is thus irreducible to a single essence, and can only be known through the practices that constitute it as well as the knower itself.

Witnessing that things make sense together has probably been the most important achievement of the research. That things do means that the way of being in the world of all things human and nonhuman occurs in and as action. This performative sense of being cannot be fully encompassed by representation as a correspondence with words or categories but instead requires an account of relations. As Barad (2007) highlights through her choice of intra-actions over interactions, becoming is worlding and vice-versa. In other words, being occurs in the world and as such is a performance of the world itself, it is a movement of reciprocity that simultaneously constitutes worlds and things. As has been pointed to by the research participants, things make sense together particularly in that coming together rather

than in the things themselves. This contributes to our understanding of knowledge as a material-discursive practice distributed between humans and nonhumans, and that the way it is distributed responds to questions, contradictions and orientations that emerge from within.

With this in consideration, the research points towards the potentialities of a pedagogy of diffraction for articulating the relationship between materiality and meaning in art education settings. That is, it presents opportunities for unexpected and unconventional approaches to materiality as a way to produce difference, rather than replicating sameness, and allowing things to take shape and meaning in relations. Diffracting the curiosity that motivated this research, this work has invited me to reconsider my understanding of identity as something that is not fixed but rather occurs in intra-actions, where the I is not a parameter against which things are read, but a series of transversal encounters. As mentioned before, the participants and the research process showed me how this can be at play when approaching art as a medium for self-expression. As for future research, this experience has made me want to look for other articulations to my questions surrounding materiality and meaning through artistic practice, where contradictions between representation and performativity as well as thinking with and saying through art do not cancel each other out.

Finally, a wishful expectation of this research is that a pedagogy of diffraction might bring along ethical consequences that implicate responsible human behaviour, because the mechanisms through which we learn and things take meaning are not innocent but always partial, and attend to the responsiveness of all materiality recognizing that humans have a powerful potential to affect humans and nonhumans. Responsible practices of knowing, making and becoming need to recognize that what is articulated may still be fallible and does not apply to everything always because it is in a continuous process of becoming. Still, we

can observe closely, carefully, and subtly to grasp difference in action rather than difference  
itself.

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## CERTIFICATION OF ETHICAL ACCEPTABILITY FOR RESEARCH INVOLVING HUMAN SUBJECTS

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Name of Applicant: Marcela Borquez Schwarzbeck

Department: Faculty of Fine Arts \ Art Education

Agency: N/A

Title of Project: Investigating the Relationship of Materiality and  
Meaning in Art Education Settings

Certification Number: 30007840

Valid From: May 08, 2017 to: May 07, 2018

The members of the University Human Research Ethics Committee have examined the application for a grant to support the above-named project, and consider the experimental procedures, as outlined by the applicant, to be acceptable on ethical grounds for research involving human subjects.

A handwritten signature in black ink, appearing to read "J. Pfaus".

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Dr. James Pfaus, Chair, University Human Research Ethics Committee

## **INFORMATION AND CONSENT FORM**

**Study Title: Investigating the Relationship of Materiality and Meaning in Art Education Settings**

**Researcher: Marcela Borquez Schwarzbeck**

**Researcher's Contact Information: [marcelaborquez@hotmail.com](mailto:marcelaborquez@hotmail.com)**

**Faculty Supervisor: Juan Carlos Castro**

**Faculty Supervisor's Contact Information: [juancarlos.castro@concordia.ca](mailto:juancarlos.castro@concordia.ca)**

**Source of funding for the study: FONCA-CONACyT (Mexico)**

You are being invited to participate in the research study Investigating the Relationship of Materiality and Meaning in Art Education Settings. This form provides information about what your participation would mean. Please read it carefully before deciding if you want to participate or not. If there is anything you do not understand, or if you want more information, please ask the researcher.

### **A. PURPOSE**

The purpose of the research is to design a creative workshop for the exploration of the relationship between matter and meaning, and to document practical and theoretical insights on the interdependence of knowing, making and becoming that ensue from the participants experience within the workshop.

### **B. PROCEDURES**

If you participate, you will be asked to attend two workshops and provide feedback about your experience. The first workshop will take place in Concordia, the second workshop will take place in a museum within walking distance from Concordia. The cost of the museum entrance will be covered by the researcher.

In total, participating in this study will take between 4 and 5 hours.

### **C. RISKS AND BENEFITS**

There are no potential risks in participating in this research.

By participating in this research you will potentially benefit from exploring some of the most current issues in art and teaching.

#### **D. CONFIDENTIALITY**

We will gather the following information as part of this research: the workshops will be documented in audio, video and through photographs. After the workshops, you will be asked to answer a questionnaire where you will have the opportunity to share comments more privately and in depth.

We will not allow anyone to access the information, except people directly involved in conducting the research. We will only use the information for the purposes of the research described in this form.

Each participant will be able to choose which level of disclosure they wish for their real identity. Please choose one option:

Your identity will remain confidential and you will be instead identified by a pseudonym of your choosing. The pseudonym will replace all direct identifiers.

The information gathered will be identifiable having your name directly on it.

We will protect the information by using passwords to access digital files and cloud drives. Any hard copies such as notes will be kept under lock. Only the researcher and the faculty supervisor will have access to the data.

We intend to publish the results of this research. The disclosure of your identity will correspond to your choice indicated above.

We will destroy the information five years after the end of the study.

#### **F. CONDITIONS OF PARTICIPATION**

You do not have to participate in this research. It is purely your decision. If you do participate, you can stop at any time. You can also ask that the information you provided not be used, and your choice will be respected. If you decide that you don't want us to use your information, you must tell the researcher before October 1, 2017.

There are no negative consequences for not participating, stopping in the middle, or asking us not to use your information.

## **G. PARTICIPANT'S DECLARATION**

I have read and understood this form. I have had the chance to ask questions and they have been answered. I agree to participate in this research under the conditions described.

NAME (please print)

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SIGNATURE

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DATE

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If you have questions about the scientific or scholarly aspects of this research, please contact the researcher. Their contact information is on page 1. You may also contact their faculty supervisor.

If you have concerns about ethical issues in this research, please contact the Manager, Research Ethics, Concordia University, 514.848.2424 ex. 7481 or [oor.ethics@concordia.ca](mailto:oor.ethics@concordia.ca).

[Questionnaire 1 - To be responded after first session]

Dear \_\_\_\_\_,

I'm sending a simple questionnaire intended as a private space where you can share thoughts on your experience with the exploratory activities of the first workshop. Please feel free to add any questions, comments or notes.

Do you think these experiences changed the way you see and relate to art materials and mediums? If so, how?

Do you think these experiences changed the way you understand the meaning of artworks? If so, how?

Thank you for your participation and for your contribution to this graduate research project.

Marcela Bórquez

[Questionnaire 2 - To be responded after second session]

Dear \_\_\_\_\_,

Please find below a simple questionnaire intended as a private space where you can share notes on your experiences with both workshops and their impact in your art and teaching practices. Feel free to add any questions or comments.

Based on your experience, please make comparison of both sessions. To do so, you can answer the following questions or choose a different format.

- How were both sessions different?
- What do you think worked and didn't work in each session?
- In which way did each session contribute to your understanding of the relationship of materiality and meaning?

If you've had the opportunity to explore with ideas and strategies developed in the workshops in your art and/or teaching practices:

- What specific strategies have you used?
- What problems have you encountered?
- What benefits have you noticed? Do you think these experiences changed the way you or your students experience and express the relationship of materiality and meaning? If so, how?

Once again, thank you for your participation and for your contribution to this graduate research project.

Marcela Bórquez