# “How does working alone together feel?”

## Aesthetic ways of knowing and creating knowledge in an open concept office

## A pilot study

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## Abstract

The trend toward open concept office floor plans reflects evolving management styles in modern organizations. Organizations typically implement architecturally open workspace designs to seed cultural change. As the popularity of open concept offices grows, however, research suggests that they are negatively impacting collaboration and productivity. This thesis examines how organizational leadership and employees perceive the transition to an open concept workspace, incorporating employees' aesthetic experience to understand how the space is 'physically known'. The study takes place within a conceptual framework of aesthetic knowledge as experiential, symbolic and personal. Using a qualitative, practice-based approach that incorporates participant-led photo-ethnography, semi-structured interviews were conducted with leadership and employees. Although the results are not generalizable, they suggest that the open concept workspace both positively and negatively impacts organizational collaboration but has primarily negative effects on staff productivity, and that leadership can improve open workspace outcomes by taking employees' embodied experiences into account in the design and implementation of such spaces. The results add to our understanding of the way in which organizational strategy and aesthetic knowledge create and sustain the way of working within an open concept office space.

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# Chapter 1: Introduction and Overview

## 1.1 Defining the Problem

Anyone who has worked in a workspace of any kind understands that *where* one works impacts *how* one works. This study explores the relationship between an open concept office space and employee work experience. It conceives of the workspace as a locus for organizational practice and a context that enables or constrains organizational knowledge creation.

Idealized by the mainstream media as "forward-thinking", egalitarian, and conducive to creativity and collaboration, the open plan workspace is an architectural design trend that arguably represents an iteration, or possibly an evolution, of the cubicle. Both the cubicle and the open-plan office derive from the "open office" architecture movement, which traces back to the late 1960s. The concepts of the open-plan office and "hoteling", in which workers are encouraged to be nomadic and eschew a physical workspace of any kind, seem "modern", when in fact these practices have been encouraged by various employers for many years (Kaufmann-Buhler, 2016). In recent years, however, the open concept office floor plan has been the subject of a growing body of scholarly literature and journalism that sends conflicting messages about the material and cultural benefits of the configuration. Some literature touts advantages like enhancing organizational transparency, improving organizational culture, and even decreasing employee stress through increased physical activity in the workspace (Lindberg, Srinivasan, Gilligan, Razjouyan, Lee, Najafi, Canada, Mehl, Currim, Ram, Lunden, Heerwagen, Kampschroer & Sternberg, 2018). Other literature cites disadvantages such as decreased collaboration, decreased productivity, and increased employee stress (Bernstein & Turban, 2018; Brown, 2017; Haapakangas, Hongisto, Varjo & Lahtinen,

2018; Candido, Thomas, Haddad, Zhang, Mackey & Ye, 2019; Wohlers & Hertel, 2016). Organizations strive to design workspaces that serve the physical, intellectual, and social needs of organizational members. However, it is not yet clear that the open concept office does so. This study therefore explores how employees physically "know" their open concept workspace, and how this impacts the way in which they work.

**1.2 Background to the Problem**

While the scholarly literature on open concept offices grows, there is very little research exploring the impact of these spaces from an aesthetic perspective. Aesthetic knowledge in organization studies is defined as knowledge about organizations deriving from the senses - that is, what one takes in through human sensory experience (Strati, 1999, 2003; Gagliardi, 1996; Siler, 2009). The underlying assumption to the aesthetic approach to the study of organizations is that organizations are socially constructed *and* derived from the knowledge-creating abilities of all the human senses (Strati, 1992; 2000). Modern research and thinking in information and knowledge management is strongly biased toward the rational and cognitive, and it is therefore not surprising that aesthetics is often seen as amusing and pointless. Most research in the field of knowledge and information studies is aimed at practitioners, and therefore strives to be objective and practical (Gagliardi, 1996). However, aesthetics as a field of study has been shown to yield rich insights and relevance for organizational studies (White, 1996), and if knowledge and information management researchers are willing to be intellectually open to the validity of less rational and logical forms of knowledge, such as aesthetic judgment, they will derive benefits from a more holistic understanding of knowledge in general.

This study explores the practice of working independently in an organization as it is enacted in a new collective workspace. Practices are defined as "ways of doing things together", paying attention to "the social processes that support practices ethically, aesthetically, and emotionally" (Gherardi, 2012, p. 18). In practice-based approaches, knowing is situated within a practice, and knowing how to do the practice is created by doing it (Gherardi, 2005; 2009; 2012; 2016; Gherardi, Nicolini & Strati, 2007; Gherardi & Perrotta, 2014; Gherardi & Rhodescini, 2016). While aesthetic knowledge has been examined in the literature as a form of tacit knowledge (Strati, 1999; 2000), it has not been done so extensively, and not in terms of how it contributes to the development and enactment of a practice. This study is also unique in that it looks at working independently as something that organizational members are doing together through the material-discursive intermediary of a collective workspace.

### 1.3 Problem Statement

This thesis is situated at the intersection of organization studies and knowledge management and looks at how leadership team members and employees physically and symbolically "know" their workplace. Specifically, the goal of the study is to explore how organizational strategy and practitioners' aesthetic knowledge create and sustain the practice of working independently in an open concept workspace, and the relationship between leadership and employee perspectives on the space. Aesthetic knowledge in this study is conceived of as experiential, personal, and symbolic (Strati, 1999, 2000; Ewenstein & Whyte, 2007). Although aesthetics and knowledge creation have been explored across many disciplines, this study looks at aesthetic knowledge creation through a knowledge management lens, emphasizing a practice-based approach to the research.

### 1.4 Framing the Research

This study increases understanding of the ways in which organizational members' aesthetic knowledge reflexively creates and is created by an organizational practice and how this relates to management objectives.

As discussed in section 1.2, aesthetic research in organizations has sometimes been viewed as less legitimate than more rational, cognitively-based approaches. This is perhaps because knowledge gleaned via sensory perceptions and individual symbolism often does not translate into concrete action for organizations. However, over the past three decades, the study of meaning in organizations, tacit knowledge, artifacts and cultures have all influenced a shift toward exploring the aesthetic side of organizations (Linstead & Höpfl, 2000). The current study is undertaken with the goal of prioritizing an aesthetic approach to exploring organizational practice to contribute to an understanding of how organizational knowledge is both situated in a physical setting and embodied by organizational members. While there is research on open concept workspaces, and the way in which organizational members respond to external stimuli in these spaces, to date the connection between an aesthetic, practice-based approach and the open concept floor plan has not been made.

### 1.5 Research Questions

Interdisciplinary scholarly literature from the fields of organization studies, knowledge management, information studies, philosophy, sociology, and anthropology on the subjects of open concept offices, organizational knowledge creation, aesthetic knowledge in organizations, practice-based studies, and collaborative visual methods inform the research questions in this study.

The research questions guiding this study include:

1. What is the relationship between aesthetic modes of knowing such as aesthetic categories and aesthetic judgment, and knowledge creation?
2. How does the workspace contribute to one's experience of work?

**1.6 Methodology**

This research study used photo-ethnographic techniques framed within the constructivist paradigm, studying participants' perspectives in depth. Its practice-based approach enabled the exploration of the individual and collective aesthetic experiences of practitioners enacting a work practice. The research unfolded in three phases. In the first phase, five employees working in an open concept office space took photos with smartphones for a period of four weeks and then submitted the photos to the researcher. These photos were then used as memory prompts in photo elicitation interviews following Rubin's responsive interviewing method (2005). The interviews were semi-structured in that the same questions were asked of each participant, but the structure also allowed for participant elaboration and reflection. This model is epistemologically, ontologically and methodologically appropriate in a study situated in the constructivist paradigm as it allows for a deeper understanding of participant experience. In the second stage, the researcher conducted semi-structured qualitative interviews with two leadership team members (Patton, 2002; Rubin, 2005). These interviews served to explore organizational leadership objectives for and perspectives on the transition to an open concept workspace. The third stage of the research involved qualitative content analysis of a sample of ten organizational documents related to the open concept workspace.

Interviews were conducted and transcribed by the researcher. Analysis took place during fieldwork in the form of interpretive memos (Zhang & Wildemuth, 2005), and iterative analysis followed to identify key themes and concepts emerging from the data

(Maxwell, 2005). This analytical approach allowed for consistent refinement of the research process.

### 1.7 Definitions of Terms

Although the open concept office workspace is not uniform across organizations, the current study conceptualizes it as an organizational office space wherein spatial boundaries, such as cubicles and office walls, have been removed to create an "open, unbounded" workspace (Bernstein et al., 2018, p. 1).

The study uses a practice-based approach to explore organizational knowledge. This approach posits that knowledge resides not only in organizational members' heads but also in their bodies, in situated actions, and in the contexts in which it arises (Nicolini, Gheradi & Yanow, 2003). The term "practice" is used to refer to "ways of doing things together, paying attention to the social processes that support practices ethically, aesthetically, and emotionally (Gherardi, 2012, p. 18). Practice-based research investigates modes of ordering the flow of organizational relations, conceptualizing organizations as webs of practices which extend internally and externally. It assumes practices as the units of analysis of organizations because they are loci for working, organizing, and innovating. In using practices to investigate organizational life, one is able to see fine details of how people use resources to accomplish intelligent actions, and how they give meaning to those actions. The study uses the term practitioner to denote an individual who enacts a work practice (Gherardi, 2012).

The study also uses the sensitizing concepts of collaboration and productivity (Given, 2008). Sensitizing concepts are distinctive, natural terms used by a researched population. They are constructs in participants' own language or expressions that sensitize the researcher to possible lines of inquiry. In the current study, these two terms

were commonly used by participants in the photo elicitation and leadership interviews; they were not, however, defined up front by the researcher. As collaboration and productivity emerge in interview data, they respectively refer to "working together with colleagues toward (a) specific goal(s)", and "producing work output effectively and efficiently". The use of these concepts provides valuable insight into participants' perspectives on working in the open concept workspace.

This study employs a framework of aesthetic knowledge as experiential, symbolic, and personal derived from the work of Strati (1999, 2000) and Ewenstein & Whyte (2007).

### 1.8 Scope and Limitations of the Study

This unfunded study was undertaken as part of the requirements for the master's degree in the School of Information Studies at the University of Ottawa. The project was confined to an investigation of one organization and necessarily limited by the time and resources available to be allocated to the research. As a result, the method chosen did not include a large sample size, nor an investigation of aesthetic knowledge across multiple organizations implementing an open concept workspace design. The study was also not exhaustive, neither attempting to describe objective reality nor generalizing to the broader population. Instead, the study explored the research problem in depth, collected data in the participants' own words, and considered implications for organizations and researchers interested in exploring knowledge creation through an aesthetic lens.

### 1.9 Outline

The thesis is organized as follows. Chapter One provides an introduction to the problem and background information on aesthetic knowledge in organizations and open concept office spaces. This chapter also states the problem and the research questions this

study is designed to answer. Chapter Two situates the problem in the scholarly literature, provides the rationale for the study, and explores a conceptual framework for aesthetic knowledge in organizational work practices. Chapter Three describes the study's methodology and limitations. Chapter Four outlines the study's findings. Chapter Five discusses the findings in terms of overarching themes. Lastly, Chapter Six summarizes the research, considers its implications, and offers a critique of its methodology.

## Chapter 2: Literature Review

The scope of literature relevant to tacit and aesthetic knowledge in organizations, organizational knowledge creation, practice-based approaches to organizational knowing, and the open-concept workspace involves many disciplines. This chapter summarizes the literature on the concepts of tacit knowledge within knowledge management and organization studies, and from there will expand the treatment of tacit knowledge to cover aesthetic knowledge. From aesthetic knowledge, the discussion is refined to the philosophical categories of aesthetics as they are applied in judgments by organizational members as a form of tacit knowledge. The review then explores aesthetic knowledge creation as situated in a practice and a physical space.

**2.1 Knowledge in Organizations** Knowledge is a concept that is both meaningful and hard to define (Von Krogh, Ichijo and Nonaka, 2000). Attempts to define knowledge can be found in virtually all of the literature on knowledge management that exists today. While a universal characterization may not be possible, the nature of knowledge in knowledge management literature can be summarized as "fluid, dynamic, intangible, tacit and explicit, embodied in individuals and groups, socially constructed, and constrained by individual and organizational barriers" (Choo & Alvarenga-Neto, 2011, p. 3).

An organization's ability to create new knowledge, to disseminate it throughout the organization, and to use it in creating products, services and systems, is an essential component of its success (Nonaka & Takeuchi, 1995). Knowledge management has traditionally conceived of knowledge as *explicit* or *tacit*. *Explicit knowledge* refers to knowledge that is codified and that can be easily communicated or diffused (Choo,

2006). *Tacit knowledge* is implicit knowledge used by people in organizations to do their work and make sense of their realities. It is difficult to codify because it is expressed through action, such as skills and know-how, and cannot typically be reduced or simplified into written rules, procedures or recipes (Choo, 2006). The current study concerns itself with tacit, or "implicit" knowledge.

***Tacit Knowledge*** Nonaka recognizes tacit knowledge as a form of knowing residing in one's subconscious, including things like mental models, beliefs, and taken-for-granted perspectives (1991). It permeates people's lives, enabling them to do many things successfully – for example, driving a car, dealing with familiar problems, or enjoying artwork - without conscious awareness of the knowledge that makes these all possible.

The concept of tacit knowledge can be traced back to philosopher Michael Polanyi (Choo, 2006; Strati, 1999; Von Krogh et al., 2000). Polanyi summarizes the nature of tacit knowledge in the phrase "*we know more than we can tell"* (1966, p.4). According to Polanyi, no matter how explicit one attempts to be in its description, there is always something that is left unspecified. Strati's treatment of aesthetics in organizations references Polanyi's ideas (1999).

The study of knowledge in organizations has primarily focused on rational modes of knowing. Aesthetic understanding of organizational knowledge is an antithesis to cognitively based knowledge, and it is valuable because rational analysis neglects significant aspects of daily organizational life (Strati, 2000). The current study is interested in aesthetic knowledge as a form of tacit knowing in practice. It places importance on the physical setting of the practice, because "[w]orkplaces are not abstract containers of equally abstract activities" " (Gherardi, Nicolini and Strati, 2007, pp. 322-

323). Aesthetic knowledge about the workplace is a form of knowledge that a community uses in relating to the work practices that distinguish it. It therefore socially sustains work practices. Also referred to as aesthetic understanding, the aesthetic way of knowing is comprised of individually- and collectively-formed sensory experiences, aesthetic judgments, and aesthetic categories.

**2.2 Aesthetics, Aesthetic Knowledge, and Aesthetic Knowledge in Organizations**

The beginnings of a theory of aesthetics trace back to Alexander Gottlieb Baumgarten (1735, 1750) and Giambattista Vico (1725). For both philosophers, aesthetics is a particular mode of knowing that is recognizably different in nature from intellectual, rational knowledge (Strati, 2000, 2003). "Aesthetic" refers to both sensory experience and to the criticism or appreciation of beauty or art (Siler, 2009). Having its roots in the theory of art, aesthetics is often confused with the concept of art. It is important to clarify their non-equivalence for the purposes of this study. Art refers to "transforming raw materials with ability and intelligence", and aesthetics refers to "knowing on the basis of sensible perceptions" (Strati 2000, p. 18). Aesthetic understanding should therefore not be confused with artistic understanding. Strati's example, below, illustrates aesthetic understanding in organizations:

> Imagine that you are in a workshop and are repelled by its smells. This is a qualitative datum of organizational analysis collected by a sensory faculty: it is, that is to say, a datum appropriate to the aesthetic approach. Smell sheds light on an aspect that organizational literature habitually ignores, given that it considers odour only insofar as it signals health risks in a work environment, or adds a picturesque detail to the description of a workshop. The aesthetic approach, by

> contrast, regards the disgust provoked by the smells in the workshop as a matter for inquiry. (2000, p. 17)

An aesthetic examination of organizations can provide the researcher with crucial insights into organizational life, particularly as it relates to the tacitness of organizational knowledge (Strati, 2003). In the above example, aesthetic avenues of inquiry might include exploring whether or not the researcher's distaste is also felt by other organizational actors; whether organizational actors have become accustomed to the smells; whether the smells identify the workshop for them, or their working conditions, or the content of their work; or whether the smells evoke nostalgia for people who no longer work in the workshop (2000). This type of tacit knowledge is foundational to one's understanding of an organization.

The study of aesthetics in organizations originated in the mid-1980s as part of an attack against the positivist and rational paradigm governing organization theory and research at that time (Martin & Frost, 1996; Zey-Ferrel & Aiken, 1981 in Strati, 2000). Works on aesthetic knowledge in organizations encourage scholars to break from a dominant tradition of cognitive theory in organization studies to embrace a broader perspective, including aesthetic sensibility as a form of knowing in practice, not reliant on cognition (Gagliardi, 1996; Strati, 2003). In his discussion on the aesthetic side of organizational life, Gagliardi describes the trajectory that modernist thought has taken, resulting in the practical becoming separated from and considered more "valid" than the beautiful. This way of thinking continues to predominate in management and organizational studies, as well as in the ways in which organizational knowledge is studied (Siler, 2009; Gagliardi, 1996). Based on a purely intellectualized view of the

firm, it ignores the fact that humans' "basic" understanding of reality comes from the information that is taken in by the physical senses (Gagliardi, 1996). An aesthetic approach to studying organizations therefore helps the researcher to avoid mistakenly focusing only on the minds of organizational actors while ignoring their bodies (Strati, 2000).

Presently, aesthetics is concerned with placing itself in opposition to Cartesian rationality, being more closely aligned with what one thinks and what one feels with the body's senses and perceptive abilities, sensitive judgments that allow one to assess feelings and other things that the intellect is unable to understand, and aesthetic judgment applied in evaluating the perfection or imperfection of something. In philosophical terms, aesthetics applied to organizational studies is about "feeling the pathos of an organization's material and nonmaterial artifacts, perceiving an organization's beauty, appreciating the grandiosity of certain organizational practices, feeling disgust at certain courses of organizational action. As the act of perceiving and judging sensorially, aesthetics is that form of organizational knowledge which is personal and collectively constructed at once" (Strati, 2003, p. 55).

The literature on organizational aesthetics is divided into two main categories: aesthetics as epistemology (including aesthetics as experience and aesthetics as a way of knowing in organizations), and aesthetic topics of study, (including the study of tangible things like organizational artifacts or the built environment) (Siler, 2009). The current study looks at aesthetic knowledge as a way of experiencing and knowing in an organization, indivisible from the space in which it is created, and therefore concerns itself with both of Siler's categories.

**2.3 Aesthetic Judgments as Tacit Knowledge in Organizational Life** Aesthetic judgment is a form of knowledge about organizations. When organizational members say that that the organization is "beautiful", often it is not a statement that the organization is objectively or universally beautiful - rather, it is a statement that indicates the way in which the person expressing the judgment represents the organization to him or herself (1999). The reason that this judgment is important is in the representation that "ties the knowing subject to the organization in question at level of aesthetic understanding and therefore of the pathos of the sensible" (1999, p. 120). Aesthetic judgment is also a piece of "socially constructed personal knowledge" (Strati, 2003, p. 55). When an organizational actor makes a remark such as "I don't like this", it is inarguable - it cannot be negotiated further in any sort of rational, reasoned manner. It is something the individual has perceived and judged sensorially, and not everyone perceives the same things, in particular when it comes to knowledge derived from the senses. Aesthetic knowledge is thus both symbolic and experiential (Ewenstein and Whyte, 2007).

Investigating how a participant in organizational life represents the organization to him or herself is what makes aesthetic judgment as a form of knowing of interest to the researcher. In his description of workmen on a roof, Strati illustrates aesthetic understanding of work by exploring the perceptive-sensorial faculties and the aesthetic judgments of the workers (2003). They describe pleasant and unpleasant aspects of carrying out their tasks, and they describe better, "more correct" ways of doing the job. Strati uses this anecdote to illustrate the tacitness and corporeality" (p. 68) of aesthetic "knowing in practice", which will be further examined as the review moves to a discussion of practice-based approaches.

Aesthetic categories are "terms of common currency in everyday organizational life. They are terms which the researcher may invite subjects to use while describing their usual routines, and are distinguished by the fact that they have a heritage behind them rooted in philosophy and theories of art, and not, for example, in organization studies" (Strati, 1999, p. 184). Aesthetic categories highlight the ways in which an individual represents the organization to him or herself. Certain aesthetic categories predominate in organizational analysis, such as the ugly, the sublime, the graceful, the tragic, the picturesque, the comic, and the beautiful (Strati, 1992, 1999, 2000, 2003). The category of beauty predominates in analysis of organizational aesthetics. Its history dates back to Plato, who considered it to be one of the three prime archetypes, together with the true and the good. The category of the beautiful has been closely bound up in theories of art, but what is more relevant to the current study is its close link with the concept of aesthetic judgment. Aesthetic judgments about organizations cannot be measured in terms of rational explanations, and, while true, are not statements of fact.

**2.4 Aesthetic Knowledge and Practice-Based Approaches to Organizational Knowing** The study of work practices is fertile ground for examining aesthetic knowledge in organizational actors' experiences. Within a practice, what one does and says relates to the practice that is being performed and is informed by a complex understanding of the organizational context in which it is situated. The widespread confusion about what practice is can be attributed not only to the extensiveness of the literature, but also to the fact that, within this large body of literature, practice is defined in different ways. Gherardi's definition of practices "as ways of doing things together", paying attention to "the social processes that support practices ethically, aesthetically,

and emotionally" (2012, p. 18) informs the current study. Practice-based approaches to studying organizational knowledge posit that it consists not only of mental processes in organizational members' heads, but rather that it should be viewed as embodied knowledge in action that is situated in the contexts in which it arises (Nicolini et al., 2003). Practice-based approaches assume that "knowing precedes knowledge, both logically and chronologically, for the latter is always an institutionalized version of the former" (Nicolini et al., 2003, p. 3). Practice-based scholars are therefore interested in looking at organizational knowledge situated in the system of ongoing practices of action in ways that are "relational, mediated by artifacts, and always rooted in a context of interaction" (p.3).

Practice-based studies explore organizations from a cultural standpoint that is critical of rationalism and cognitivism, assuming instead a reciprocal constitution of the knower and what is known (the subject and object of knowledge as mutually constitutive). Some common goals of practice-based research are: to go beyond problematic dualisms such as mind/body; to see reason not as a mental ability but as a phenomenon situated in practice; to question individual actions and how they build social norms; and to do practical, rather than idealistic, research (Gherardi, 2001, adapted from Gherardi, 2012). The current study is interested in the way in which aesthetic knowledge is a form of knowing in practice that is created and applied within a practice, and so it is relevant to look at how knowledge creation is treated both within the practice-based literature and outside of it.

**2.5 Aesthetic Knowledge Creation in a Practice-Based Approach as Indivisible from Organizational Space** It is necessary to look at practice both in action and when it is

applied to itself in creating new knowledge (Gherardi 2006). Practice-based studies look at the way that process invents the way of doing (Gherardi, 2009, 2012, 2016; Gherardi & Rodeschini, 2016). Studying work practices allows for the study of knowledge while it is being created. A useful concept for the current study is that of *formativeness*, which refers to how the object of a practice is created within sociomaterial relations in a process of "forming" - meaning that actors invent the way of doing through the doing itself (Gherardi, 2016; Gherardi and Perrotta, 2014).

Gherardi and Rhodescini illustrate the idea of situated knowing in a discussion about the work practice of caring (2016). Caring is described as an organizational competence enacted by a group of professionals in performing their work duties. Each participant takes part in the practice for the purposes of caring for residents of a nursing home, without its being necessary for anybody to "master" caring in any way - the knowledge of how to "do" caring is constantly being created and refined through the practice of actually "doing" it. This "knowing in practice" is tacit and personal knowledge inasmuch as, in this practice, it's a matter of personal concern. It is largely sensorial and is comprised of aesthetic judgments that sustain the "best" or the "right" way of practicing caring.

The physical space of a practice has a critical role in the development and enactment of a practice. It is a material-discursive intermediary to the practice (Gherardi, 2005), and practices are "relations between saying and doing in situated settings where objects and context are interwoven and mutually constitutive" (p. 227). In practice thinking, knowledge is situated, and activities and knowing always have a specific "where and when" (Nicolini et al, 2003, p. 27). Action happens in a material, historical

and socioeconomic context. This context is not a given – rather, it emerges from the conditions put into place by a practice itself.

Similar to the idea that the setting of a practice is indivisible from the practice itself and the knowledge situated within the practice, the concept of "ba" provides another perspective on the way in which scholars look at the role of space in knowledge creation (Alvarenga-Neto & Choo, 2011; Choo & Alvarenga-Neto, 2010). Originally proposed by Japanese philosopher Kitaro Nishida, *ba* is a "shared space that serves as a foundation for knowledge creation" (Nonaka & Konno, 1998, in Choo et al, 2011). *Ba* can be a "physical space (e.g., an office), a virtual space (e.g., video-conferencing), a mental space (e.g., shared ideas), or any combination of these" (Choo, 2006, p. 149). Contemporary organizational studies conceive of it as a shared context in which knowledge is created, disseminated, and utilized (Kwanya, Stilwell & Underwood, 2015) and explore its impact on employee productivity and knowledge creation (Hautala, 2011; Pribaldi, 2010; Sujatha & Krishnaveni, 2018).

The idea of *ba,* along withNonaka and Takeuchi's conceptualization of embodied knowledge (1995) and the description of an enabling context for knowledge creation (Von Krogh et al. 2000), are reminiscent of the way in which practice-based studies and aesthetics conceptualize knowledge and knowing in practices. While not explicitly associated with practice-based approaches, the literature on *ba* contends that knowledge is embedded in the space and cannot be separated from it. This is aligned with practice scholars' ideas of situated knowledge and knowing in practice.

**2.6 Aesthetic Knowledge, Situated Practice and the "Open-Concept" Workspace**

The current research looks at how both the practice and the "knowing in practice" of working independently are created and enacted in an open-concept office space. The importance of physical space to a practice has been illustrated. A review of current thinking on the nature of the "open concept" or "open-plan" workspace is therefore relevant and helpful to the discussion.

Much of the research on open-plan workspaces explores the sensory, or aesthetic, experience of these spaces. The literature often examines the experience through the lens the positive or negative effects of the space on employees, in particular around noise and light (for example, in Brocolini, Parizet & Chevret, 2016; Dehlbaek, Jeong, Brunskog, Petersen & Marie, 2016; and Yu, Wang, Qiu, Shaid & Wang, 2016). Employees' experience of these factors, and the ways in which the space might be designed to modify the impact of the effects of light and noise, are of interest to research on aesthetic knowledge as a legitimate way of understanding and navigating the workspace in the course of performing work practices.

There does not appear to be a one-size fits all approach to implementing an open concept office floor plan. Organizations might choose to offer multiple workspace configurations so that employees can select their preferred work environment. Referred to as activity-based flexible offices (A-FOs), these floor plans provide some private workspaces such as offices, some furnished semi-private workspaces such as cubicles, and some completely open-plan space. It has been suggested that this type of arrangement provides employees with the maximum number of options to work in an environment that suits their needs. Organizations might use A-FOs to promote collaborative work culture. The ideology is that the openness of the environment fosters a similar degree of openness

in interactions among colleagues. It is hoped that employees working in such environments will value teamwork, collaborate more, and embrace innovation. The negative effects of open office environments, such as noise and interruptions, are often documented, but A-FOs provide employees with autonomy in choosing where to work as suits their needs, which might equip them to cope with these negative effects (Candido et al., 2019; Haapakangas et al., 2018; Wohlers & Hertel, 2016).

In a study of the role of the workplace on social workers' practices, Jeyasingham describes an open-plan workspace as providing less than ideal circumstances for getting work done (2016). This is in contrast to the ideology behind open workspaces and A-FOs (as described by Wohlers et al.). It often does not offer needed privacy for meetings with clients, nor the appropriate acoustics to enable workers to have phone calls without disturbing other workers. Jeyasingham's research conceptualizes social workers' bodies as the locus of their work practices; working flexibly is more about *the way* of working than the actual work itself. The open workspace is, however, seen as providing workers with a significant degree of autonomy in determining how they practice, enabling them to observe and form evaluations of how others practice, develop and transfer tacit knowledge about practice, validate others' actions, and gain a sense of their work practice as a shared endeavour, although most of colleagues' work in the space is solitary. The shared space forms the way that the practice is practiced, even while those practicing in the space are, in effect, practicing alone.

Workspace design can represent an extension of employee identity, status, group membership and mood, and as such might impact the likelihood of employees to engage in certain types of behaviour (Ashkanasy, Ayoko & Jehn, 2014). The open workspace is

therefore the locus of affective events that might drive behaviours, and judgment as a form of knowledge that contributes to employee behaviour.

**2.7 Aesthetic Judgments as Reflexively "Creating and Created" Knowledge and Context of a Practice** Practices are situated in socio-material circumstances and perceived and constructed by individuals through their senses and bodies. Current discussions of the body and senses in organizational knowledge fall into three categories: "the body that works through the senses; the body that experiences through the senses; and the body that knows through the senses" (Gherardi, Strati & Mariläinen, 2013, p. 333). The third category stresses the relevance of sensible knowledge to organizational knowing and learning, focusing on knowledge derived from sensory faculties. Humans not only have a body but *are* their lived bodies while experiencing the world in a tactile, visual, olfactory and auditory way. It is in this way that the current study conceptualizes knowledge, emphasizing that people "create, invent, and enact organization through their corporeality, which enables them to acquire sensible knowledge as well as to engage in intellectual ratiocination – and always in relation to the non-human elements that make up the organizational space" (Gherardi et al., 2013, p. 334).

**2.8 Conceptual Framework**

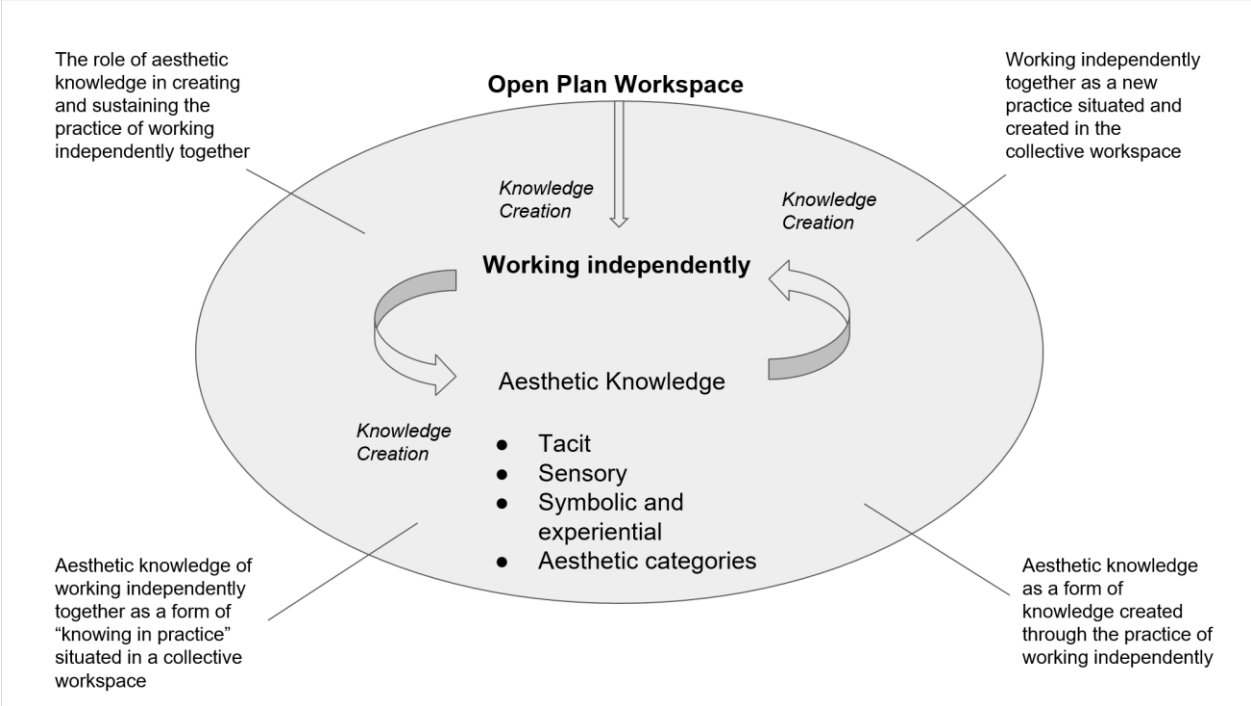
There is very little research on the role of aesthetic knowing as knowledge both created by and creating an organizational practice, so this study adopts an exploratory approach to conceptualizing the research. Strati's work (1992, 1999) and Gherardi's work (2006, 2009, 2012, 2016; Gherardi & Perrotta, 2014; Gherardi & Rhodescini, 2016) serves as the basis of the theoretical framework.

Studying work practices allows for an examination of knowledge as it is being created. The practice creates knowledge of the practice, and this knowledge then reflexively creates the practice. Aesthetic knowledge is a subjective form of personal knowing (Strati, 2003) that community members use to both refer to and create distinctive work practices (Gherardi, Nicolini and Strati, 2007). The study looks at the role of aesthetic knowledge as it is created through a new work practice, and to explore its role in enacting the practice. Focusing on the characteristics of the knowledge - as tacit, sensory, and as representing aesthetic categories (Strati, 1999) - helps to ground this study in the area of organizational knowledge management.

The framework conceptualizes the current study in the following ways:

1. Working independently together as a new practice situated and created in a collective workspace;
2. Aesthetic knowledge as a form of tacit knowledge created through the practice of working independently;
3. Aesthetic knowledge of working independently together as a form of "knowing in practice" situated in a collective workspace;
4. The role of aesthetic knowledge in creating and sustaining the practice of working independently together.

Figure 1: *Aesthetic knowledge as created by and creating the practice of working independently in a collaborative workspace (adapted from Gherardi and Strati)*




The study looks at the aesthetic knowledge of practitioners as tacit knowing in practice that is experiential (gained through the senses) and as symbolic of how the participant represents the organization to his/herself, specifically through sensory perception and the aesthetic categories of the beautiful, ugly, comic, tragic, sublime, gracious, and picturesque (see Table 1) (Ewenstein & Whyte, 2007). The study examines aesthetic knowledge at the individual level and explores if and how it exists at the collective, intersubjective level.

Table 1: *Aesthetic Knowledge and Working Independently in a Collaborative Workspace*

| *The role of aesthetic knowledge in the practice of working independently in a collaborative workspace* | | |
|---|---|---|
| **Experiential** | **Symbolic** | **Personal knowledge (aesthetic judgment)** |
| Gained through human senses:<br><br>1. Touch | Way in which practitioner represents the organization to him or herself: | Socially constructed evaluative interpretation:<br><br>● Like/dislike |

| | | |
|---|---|---|
| 2. Smell<br>3. Sight<br>4. Sound<br>5. Taste | 1. The Beautiful<br>2. The Ugly<br>3. The Comic<br>4. The Tragic<br>5. The Sublime<br>6. The Sacred<br>7. The Picturesque<br>8. The Agogic/Rhythmic<br>9. The Graceful | ● Appreciation/disgust<br>● Good/bad<br>● Neutral |

This framework offers a novel way to conceptualize aesthetic knowledge, or "knowing in practice", in relation to organizational space as the enabling context for knowledge creation.

**2.9 Summary**

This chapter examined selected literature around tacit and aesthetic knowledge in organizations, organizational knowledge creation, practice-based approaches to organizational knowing, and the open-concept workspace to identify concepts to be used in designing this study. These concepts informed a conceptual framework for the research. The following chapter outlines the methodology of the study.

## Chapter 3: Methodology

This chapter describes the qualitative research design, sample selection, data collection and data analysis strategies for this study. The goal of the study is to explore organizational members' aesthetic knowledge as it is created through the practice of working independently in an open concept workspace environment, and to explore its role in enacting the practice. Aesthetic knowledge – otherwise referred to as aesthetic understanding - is knowledge about organizations deriving from the senses - that is, what one takes in through human sensory experience (Siler, 2009; Strati, 1999), therefore a qualitative and interpretive research method was selected to explore the research questions.

The key elements of the study are the organizational practice of working independently in a collaborative space, the aesthetic experiences of organizational actors as they enact the practice, and the organizational space itself. In studying practices, the researcher should pay attention to social processes, in particular those which support practices aesthetically. Practices are examined both in action as well as in how they can be applied to themselves in the creation of new knowledge (Gherardi, 2006), and the physical space of a practice has a critical role in its development and enactment.

It can be challenging to communicate aesthetic experience through language (Warren, 2008; Taylor, 2002). Direct questioning about actors' "felt sense" of organizational actions or artifacts is an accepted way to explore their aesthetic experience, however it often leads to unsatisfactory results, due to what Taylor refers to as "aesthetic muteness" - a difficulty in "approaching one's experience from an aesthetic perspective, reframing it from 'feeling' to 'thinking', inability to recall aesthetic

experience, and denial of aesthetic experience" (2002, p. 821). Warren argues that the limitations of language and text-based approaches in studying aesthetics in organizations necessitate a more "sensually complete" methodology (2002, p. 224). Her findings demonstrate that photographs create a bridge between the researcher and research subject by providing a shared frame of reference and an opportunity to collaboratively generate new, unexpected knowledge. They also mitigate challenges associated with aesthetic muteness in that they serve as historical record and memory prompt (Collier & Collier, 1957, 1967; Harper, 2002, 2012; Pink, 2009, 2013; Siler, 2009; Taylor, 2002; Warren, 2002, 2008).

The research project proceeded in three stages. In the first stage, organizational actors working independently in the open concept workspace took photographs with smartphones for a period of four weeks, after which they submitted the photos to the researcher. The researcher then conducted semi-structured, open-ended photo elicitation interviews using the photographs as interview prompts in order to understand participants' individual aesthetic experiences of the practice (Harper, 2002, 2012; Patton, 2002; Warren, 2008). The choice of the photo elicitation methodology was influenced in particular by Warren's study of aestheticization in the web-design department of a global IT firm, which employed respondent-led photography, semi-structured biographical interviews, and aesthetic ethnography (2008, p. 568). The project, entitled "Show Me How it Feels to Work Here", positions participants' photographs as a material, tangible dimension of researcher-participant interactions. The methodology is effective because of the combination of photographs and interviews.

Secondly, in order to develop a more in-depth understanding of the enabling context for knowledge creation, the researcher conducted semi-structured qualitative interviews with leadership team members regarding the objectives behind the decision to offer an open concept workspace, and their perceptions on the outcomes of the change (Gherardi, 2012; Patton, 2002; Warren, 2008). The results of both the photo elicitation interviews and the leadership team interviews informed the third stage of the research, in which published organizational documents related to the open concept workspace were analyzed to develop an understanding of organizational messaging in support of the enabling context and how it relates to organizational actors' aesthetic experiences in the space.

### 3.1 Research Design Summary

The research project uses ethnographic and photo-ethnographic techniques framed within the constructivist paradigm. Constructivism in this study follows Lincoln's definition, having as its central focus "not the abstraction (reduction) or the approximation (modeling) of a single reality but the presentation of multiple, holistic, competing, and often conflictual realities of multiple stakeholders and research participants" (1990, p. 73). Methods are designed to capture realities holistically and to look for implicit meaning in human activity, and are typically qualitative rather than quantitative (Lincoln, 1990). A constructivist orientation is helpful in exploring "individual creation of knowledge structures and mental models through experience and observation" (Talja, Tuominen & Savolainen, 2005, p. 82). In support of the constructivist aims of the current research, the study methodology uses ethnographic and

photo-ethnographic techniques to gain a more thorough and precise understanding of the texture of the practice of working independently in a collaborative workspace.

To explore the research questions, a three-stage process was followed that included photo-elicitation interviews, exploratory interviews with leadership team members, and content analysis of organizational documents. The first phase involved having participants take photographs of their practice of working independently in an open concept workspace for a period of one month and then submit them to the primary investigator. The photographs were used to invoke comments, memory and discussion in the course of semi-structured photo elicitation interviews (Banks, 2007). The interviews followed Rubin and Rubin's model of responsive interviewing (2005) as well as Patton's guidelines around standardized open-ended interviews (2002). This allowed for an interpretive, holistic understanding of participants' aesthetic knowledge of their practice.

The second stage involved exploratory qualitative interviews with organizational leadership members, but without the use of photographs. These interviews were designed to elicit organizational leadership's perceptions of and objectives behind the organizational change to an open concept workspace.

The third stage involved content analysis of all organizational documents related to the open concept workspace. Documents selected were official organizational communications published to the corporate intranet (and therefore public to all employees) relating to the transition to the open concept workspace. Content analysis is used in qualitative and quantitative research frameworks and uses a broad range of analytical techniques to develop findings and put them into context (White & Marsh, 2006). Documents were read systematically, followed by categorization and analysis to

make inferences about the messages within the documents, including leadership objectives behind the change to an open concept workspace, staff perspectives regarding the open concept workspace, and communication around the planning of the organizational change.

Collecting, analyzing and cross-checking data from the interviews and the content analysis triangulated the study, increasing its credibility and confirmability (White et al., 2006; Horrall, 2014).

### 3.2 Ethics Review

This research project was approved by the University of Ottawa Research and Ethics Board in accordance with university policy, the Tri-Council Policy Statement and other applicable regulations in Ontario (Appendix A: Ethics Approval). Included in the Research and Ethics Board's review were issues of confidentiality, handling, storage and destruction of data.

### 3.3 Phase 1: Photographic Data Collection and Photo Elicitation Interviews

This section outlines the recruitment, design and interview process for the photo elicitation interviews.

**3.3.1 Sampling and recruitment of participants.** Despite advances in other social sciences around aesthetics research, exploration of the senses and sensory knowledge in organizations is scant. The studies that do exist typically fall into one of two categories: those that privilege the researcher perspective in an organization, and those that foreground the experience of organizational members (Warren, 2008). This study most closely aligns with the latter: photo elicitation interviews serve to provide a window into individual organizational members' aesthetic knowledge as it is created by and creating

the practice of working independently together in an open concept workspace. The study included participant-led photography and photo elicitation interviews as data inputs in order to explore the relationship between aesthetic modes of knowing and knowledge creation in the workspace and how the workspace contributes to one's experience of work.

Photo elicitation is a qualitative research technique that uses images to prompt and guide in-depth interviews. A photo elicitation methodology was deemed to have a number of advantages in that the polysemic quality of photographs allows observers to interpret their contents according to their own contexts. Photographs have two informational values for a researcher: first, what is referred to as *encyclopaedic value,* meaning that the photograph is valuable as a reconstruction of reality, and second, what is referred to as *projective interviewing*, meaning that the photograph is useful in invoking knowledge, insights, and interpretations of the research participant, not necessarily restricted to the contents of the actual image itself (Lapenta, 2011; Pink, 2013). Photographs used in collaborative research are particularly helpful due to their communicative nature (Lapenta, 2011), and involving them in interviews reveals many things about the way in which the interviewee makes sense of the world (Harper, 2012). Photo elicitation is used in a number of disciplines, and it has been found that for the purposes of exploring topics involving like subjective judgment and individual experience, elicitation interviews provide superior results in terms of quality and directness of statements made, as well as in their ability to elicit details about emotional states and latent memories as compared with semi-structured narrative interviews (Harper, 2012). A photo elicitation interview can involve either researcher-produced

images, participant-produced images, collaboratively-produced images, or some combination of these options. The interview itself involves both researcher and participant viewing the images and interpreting their contents.

Methods for participant sampling are not overly prescribed in photo elicitation (Lapenta, 2011). Participants for this study were selected using purposive sampling. This approach produced a sample of participants chosen based on relevance to the research objectives, and was particularly appropriate given the fact that the potential number of individuals who met inclusion criteria was more than what could be studied given available time and resources. The qualitative, descriptive nature of the research questions benefitted from a smaller sample of diverse, information-rich cases, rather than a larger, more random sample (Patton, 2002).

Participants were recruited through an invitation email distributed to all employees working in an open concept workspace. A key ethical tenet of research is that the researcher must ensure that participants do not feel coercion in any aspect of their participation. The recruitment email ensured that prospective participants provided their contact information to the researcher of their own volition; the researcher did not take advantage of established relationships nor contact information she has by virtue of prior access to the research site.

Volunteers who conformed to the study inclusion criteria were selected on a first-come, first-served basis. Seven volunteers who met the selection criteria contacted the researcher. One did not wish to participate after discussing the participation involvement further with the researcher, and one was not available to participate during the study timeframe. Five were accepted for inclusion in the study.

Photo elicitation participants were selected purposively on the basis of the following criteria. In order to participate, they had to:

- Be an employee of the organization being studied (either full-time permanent or full-time contract workers);
- Work primarily in an open concept office space (meaning the participant must be lacking an office or cubicle as an independent working space); and
- Have access to a smartphone, be willing to take photos from that device for a period of one month, willing to submit photos to the researcher at the end of one month, and consent to speak to the researcher in an individual interview about the photographs and experiences depicted in the photographs.

Sample size for photo elicitation interviews depends on the objectives of the research project itself. The methodology is used both in smaller scale and larger scale projects (Pink, 2013; Warren, 2008, 2002; Ray et al, 2012). The photo elicitation sample in this case was limited to five participants due to the exploratory objectives of the project and the available time and resources for the study. The number was deemed sufficient to generate enough data to explore participants' aesthetic knowing of the practice of working independently in a collaborative workspace, although it is understood that the small size of the sample means that the results are inherently subjective and not generalizable to the broader population.

**3.3.2 Initial connections/correspondence.** The principal investigator is an employee of the organization at which the study was conducted, therefore had prior access to the research site. The organization granted permission for the study to proceed on its

premises with voluntary participation from employees (Appendix B: Letter of Information).

As a member of the organization, the researcher had an established rapport with all of the interview participants prior to the study. These relationships were non-supervisory in nature.

**3.3.3 Photographic Data Collection and Interview Design.** Study participants took photographs of their practice of working independently in the open concept workspace over a period of one month, and then submitted these images to the researcher. Prior to taking photographs for the project, participants were provided with practical and ethical guidelines directing their photography as part of the study. After the one month period, individual photo elicitation interviews were then held in which the researcher and the participant discussed up to five of the participant's photographs.

The classic approach to photo elicitation involves an open-ended, qualitative interviewing style, and each interview might range from 45-75 minutes in duration (Schwartz, 1989; Harper, 2012). The photo elicitation interviews in this study were designed to allow for "responsive interviewing" (Rubin & Rubin, 2005). All participants were asked the same questions, but these questions served as starting points for the discussion between researcher and participant. The interview structure was flexible and informal, and participants were not interrupted or re-directed in the case of the provision of tangential information.

**3.3.4 Pre-test.** The photographic data collection guidelines were pre-tested prior to the interview. The pre-test revealed a need to clarify guidelines regarding under which circumstances participants should take photographs.

Test participants took photographs with a smartphone for a shorter test period of two weeks (as compared with the study design which calls for a photographic data collection period of four weeks). The test data collection period was intended as a trial exercise, and therefore shortened for efficiency. Test participants submitted their photographs to the researcher after the agreed-upon 2 week data collection period to be used in the test photo elicitation interviews. The photo elicitation interview guidelines were pre-tested prior to the interview.

**3.3.5 Interviews.** Interviews were conducted in English in Ottawa, Ontario, Canada and virtually via Google Hangouts video conferencing tool. In terms of remote interviewing, video conferencing is ideal as it allows the researcher to pick up on the same visual cues as in face-to-face interaction. It was also deemed acceptable and necessary as two participants' schedules did not permit an in-person interview in Ottawa; this tool was readily available to these particular participants and was not imposed by the researcher. One interview was conducted via Google Hangouts with the participant's camera disabled due to poor internet connectivity.

Interviews lasted between 45 and 75 minutes and were audio recorded by the researcher using an audio recording device. Interview guides directed the interviews (Appendix C: Interview Guide: Photo Elicitation Participants). The researcher transcribed the interviews and then conducted textual analysis to derive codes and uncover themes. Participants decided on the order of photographs to be discussed, and were informed of their right to exclude any photographs they did not wish to discuss. Any photographs submitted to the researcher but not discussed in the interview were deleted by the researcher in full view of the participant. Interviews ended by asking participants whether

or not they had any additional comments or questions. The researcher thanked participants and invited them to contact her with any further thoughts.

**3.3.6 Participants.** Participants were selected based on the selection criteria outlined in section 3.3.1. The research study did not capture or record specific demographic information about participants, however certain topics were touched on during interviews (for example, some participants referenced age or generation or gender as it related to the discussion during the photo elicitation interviews). Five participants were interviewed; of these, two were male and three were female. Four of the five participants were living in the Ottawa-Gatineau area, and one was living in Toronto. The researcher is familiar with the Ottawa and Toronto workspaces, and therefore could contextualize participant contributions regarding both spaces. Age data was not collected, but the age range of participants can be estimated as 28-55 (deduced from the conversations and pre-existing rapport between the researcher and participants). Participants had been working in an open concept office space for different lengths of time: one participant had worked in open concept offices for up to 12 years (at the study organization and in previous roles elsewhere), and four had worked in an open concept office for less than two years. To protect their identities, photo elicitation participants in this study will be referred to as R1, R2, R3, R4 and R5.

### 3.4 Phase 2: Leadership Interviews

The second phase of the project involved semi-structured qualitative interviews with leadership team members. This section outlines the sampling, recruitment, interview design and interview process.

**3.4.1 Sampling and recruitment of participants.** In order to gain a deeper understanding of the enabling context for the organizational change to an open concept workspace, qualitative, semi-structured interviews were held with members of the leadership team. The objective was to gain a "nuanced view of participants' experiences" through interviewees' reflection on their experiences, rather than in response to experiments designed by the researcher. The interviews allowed for ongoing refinement of the research process.

Participants were selected by the researcher using purposive sampling, which produced a deliberate sample of participants chosen based on their relevance to the research questions (Patton, 2002). This was ideal because the study aimed to gain a deep of understanding of the decisions and perspectives of the leadership members who support and enable organizational change, and that the research project had limited time and resources. Information richness, rather than a larger sample, was the most important factor in sampling for the project. Interviewees were recruited through a recruitment email distributed to all organizational leadership team members.

Leadership team members were selected purposively on the basis of the following criteria:

- Participant must be a member of the leadership team in the organization; and
- Be willing to participate in a 30 minute interview with the researcher regarding the organizational strategy for an open concept office.

The small sample was deemed sufficient to provide enough data to make inferences about leadership's perspective around the move to an open concept workspace within the organization. As with the photo elicitation interviews, it is understood that the small

sample size lends itself to inherent subjectivity and therefore the study does not purport to describe objective reality nor generalize to the broader population.

**3.4.2 Interview Design.** The leadership team members were interviewed for 30 minutes following a semi-structured qualitative interview guide format. An informal conversational strategy was also applied during interviews, providing the researcher with flexibility in probing and allowing for subjects to be explored in depth at appropriate times (Patton, 2002).

**3.4.3 Interviews.** Interviews were conducted in English. One interview was conducted via Google Hangouts video conferencing tool, and one was conducted over the phone due to scheduling constraints (video conferencing not being an option due to poor internet connectivity).

Interviews lasted for 30 minutes and were audio recorded by the researcher using an audio recording device. Interview guides directed the interviews (Appendix D: Interview Guide: Leadership Participants). As with the photo elicitation interviews, the same questions were asked of each participant, although not always in the same order, based on the flow of the interview and Rubin and Rubin's responsive methodology (2005). The researcher created summarizing memos after each interview to assist in deepening understanding of the research problem. Interviews were transcribed by the researcher and the transcripts were then analyzed for emergent themes and patterns in the data. Analysis was undertaken between interviews to assess whether or not follow-up questions should be asked at any point to elicit more information.

**3.4.4 Participants.** Participants were selected based on the selection criteria outlined in section 3.4.1. The research study did not capture or record specific demographic

information about participants, and data of this nature did not come up during the leadership team member interviews. Of the two leadership team members interviewed, one was male and one was female. One participant did not work full-time in an open concept office, and one participant did. One participant played a significant leadership role in the transformation of the organization's office space to an open concept model, and one did not have a significant leadership role in the transformation. To protect their identity, leadership team participants in this study will be referred to as L1 and L2. All identifying details will be excluded from the analysis.

### 3.5 Data Analysis: Photo Elicitation and Leadership Interviews

The interview data were analyzed to uncover themes, ideas, experiences, and patterns. Similar to its lack of prescriptive sampling strategies, photo elicitation data analysis is typically performed in any number of ways. Researchers using this approach code interview narratives based on topics and/or themes (content and thematic analysis). The content analysis followed a process of directed content analysis, in which initial coding started with theory and relevant research findings. Then, during immersive data analysis, the researcher also identified additional, emergent themes (Zhang & Wildemuth, 2005; Hsieh & Shannon, 2005).

Ongoing analysis took place during fieldwork in the form of summarizing notes written after each interview. Analysis of interview transcripts was influenced by Maxwell's constant comparison method (2005). Text was assigned to a category and compared to each piece of text already assigned to that category, in order to understand the theoretical properties of the category. Interpretive memos were generated through this iterative process of integrating categories and their properties (Zhang et al., 2005).

The researcher had a basic orientation to approaching the data, looking for themes and patterns relating to aesthetic ways of knowing in participants' experience of working independently in an open concept workspace. An initial list of coding categories was generated from their work, and the coding scheme was elaborated and modified as new categories emerged inductively in the course of analysis (Miles & Huberman, 1994). A coding manual was developed, in which codes were identified and defined, and rules were developed for their usage (Zhang & Wildemuth, 2005).

Upon completion of interviews and data collection, transcripts were exhaustively coded and the data was grouped into categories to understand patterns and themes. These categories were tested against all of the data to ensure that interpretations were supported. Analysis involved exploring the properties of categories, establishing relationships between categories, and uncovering patterns in the data (Bradley, 1993).

### 3.6 Phase 3: Content Analysis

In addition to photo elicitation interviews and leadership team interviews, the project included content analysis of organizational documents about the open concept workspace. This section details the sampling and data analysis of the documents.

**3.6.1 Sampling of organizational documents.** Given the exploratory nature of this study, the project examined purposively selected texts that informed the research questions (Zhang & Wildemuth, 2005; Patton, 2002). The research explores not only organizational actors' aesthetic experiences in practice of working independently in a collaborative workspace but also the impact that space has on the practice. The space has been designed to fulfill certain organizational objectives, and serves as a co-creating, discursive intermediary of the practice (Gherardi, 2005). Organizational documents in

this study are defined as written documents that are public within the organization relating to the organizational strategy for the open concept workspace. The documents used were official organizational communications regarding the office space redesign project. Documents were selected from the corporate intranet, which is used to disseminate organizational updates and key information to all staff members. All documents meeting this criterion were selected for content analysis. Only one published document did not meet this criterion: a blueprint for the open concept workspace. This is not a textual document and was therefore deemed unsuitable for inclusion. In total, ten documents were analyzed in this phase of content analysis.

**3.6.2 Data Analysis.** In knowledge management, the space in which knowledge is created is referred to as an "enabling context" (Von Krogh et al., 2000). Enabling contexts can be built intentionally and created spontaneously as a function of the type of organizational relations that occur. In the enabling context, information is given meaning through processes of interpretation, and then this new knowledge creates even more knowledge through subsequent changes of meaning and context. This study therefore takes the position that the enabling context for knowledge includes public organizational artifacts, such as documents published on the corporate intranet.

Analysis of organizational documents followed conventional content analysis, incorporating Maxwell's constant comparison method (2005; Hsieh & Shannon, 2005). Organizational documents were first read and observational notes were taken. Subsequent, more detailed readings led to the creation of categories and themes. Inductive category creation involved grouping similar text elements together as they represented concepts, themes and patterns. Content was then studied further to refine the

categories. Memos were drafted on an ongoing basis to note potential relationships between categories or to propose higher level themes emerging from the data. As the documents are considered to form part of the organization's knowledge creating space and to represent one aspect of the overall organizational strategy for an open concept workspace, the content analysis was also informed by categories and themes identified through the analysis of the leadership team members' interviews and the photo elicitation interviews, with particular attention paid to leadership objectives and aesthetic modes of knowing. The content analysis was complete after all ten organizational documents were coded.

### 3.7 Validation

Qualitative research requires rigorous criteria to evaluate the trustworthiness of the methods used. This study used Lincoln and Guba's criteria of credibility, transferability, dependability and confirmability (1985). The study design includes three areas of data collection: text analysis (organizational documents), photo elicitation interviews and leadership team interviews. These multiple data sources support the analysis and triangulate the study. Textual analysis is subjective by nature; the researcher, therefore, strove to remain non-judgmental while compiling the data. In terms of the trustworthiness of the data, participants' experience was recorded in their own words, and direct quotes from participants have been included in order to allow the reader to form additional or alternate interpretations of the data. The research is grounded in previous scholarly work on the topic, and the findings include detailed documentation of the research methodology, data collection and data analysis to support the transferability of the study.

As previously discussed, the researcher had prior access to the research site. This

served the research objectives in a number of ways. First, it served to sharpen the researcher's attention to and understanding of aesthetic detail. In organizational aesthetic research, the scholar is, in fact, encouraged to pay attention to his or her own perceptive and sensory experiences in order to develop a more complex aesthetic understanding of the research subject (Strati, 1999, 2000, 2003). Secondly, visual collaborative research methods highlight the importance of "reflexivity". Reflexivity refers to the researcher's awareness of his or her own role in the research process and points to the notion that in experiential, qualitative research, it is very difficult to guarantee true objectivity. It is therefore valuable to acknowledge and perhaps incorporate researcher subjectivity within the research (Pink, 2013; Warren, 2002, 2008). The researcher's familiarity with the context of participants' experiences enabled a nuanced and detailed understanding of their responses and so was particularly suitable given the nature of the project.

### 3.8 Study Limitations

Sensory experience is not easily articulated in words (Taylor, 2002), meaning that this type of research is inherently vulnerable to potential imprecision in participants' interpretation of even their own experiences. The photo elicitation methodology mitigates this challenge to a degree. It offers a powerful methodological opportunity to understand the sensory, unspoken, tacit and invisible aspects of experience (Pink, 2009; 2013). A weakness of participant-led photography is that the meanings cannot be separated from the photographs themselves; photo elicitation requires that there is an in-depth encounter with the researcher and subject. This does not always allow for an exhaustive account of the meaning of an image to be documented, due to possible resource and time constraints for extensive interviewing, introducing a risk that all possible meaning is not

documented. It also does not necessarily allow for the photographs to be interpreted as data in and of themselves by those other than the researcher and the research subjects. For example, individual participants' photographs were not shared with the entire pool of participants, so they were not able to add additional interpretation to one another's images. The results of photo elicitation interviews cannot represent objective truth but rather are a construction of the interaction between the researcher and individual study participants at a single point in time (Williamson, 2006, in Horrall, 2014).

Another limitation of the study involves ethical considerations in photo elicitation studies. The researcher must determine whether or not photographs used in the course of research and publication might cause harm to participants or other individuals. If this is the case, these materials should not be used. While ethical photography guidelines were provided to participants, participants were challenged by the directive not to include other organizational members in their images. They reflected that there were certain aesthetic experiences they would have captured were it not for this guideline, therefore the pool of potential data was limited.

The tight timeline for the project limited the size of the study. Had there been more time, the primary investigator might have interviewed more leadership team members for a more fulsome picture of leadership objectives behind the change and more organizational members working in the open concept workspace. Given the exploratory nature of the study, the results cannot be generalized. However, it is anticipated that sufficient information is provided to ascertain the results' transferability to other contexts.

# Chapter 4: Findings

This chapter describes the findings of this study. The first research question the study seeks to answer is "What is the relationship between knowledge creation and aesthetic modes of knowing, such as sensory perceptions, aesthetic categories and aesthetic judgment?" It explores this relationship at the individual and collective level, emphasizing the importance of corporeality in organizational practices. To examine how organizational members' aesthetic knowledge contributes to their experiences of work, study participants were directed to take photographs of their independent work in an open concept workspace office and to participate in photo elicitation interviews. In these interviews, the photographs were used as memory prompts and questions were asked to elicit sensory knowledge. An inductive qualitative content analysis of the interview texts revealed references to aesthetic knowledge created through and creating the practice of working independently in a collaborative workspace, as well as norms, values, and meanings explicitly and implicitly ascribed to the practice.

The next research question this study asks is "How does the workspace contribute to one's experience of work?" Practice-based studies adhere to the principle that the relationship between practice and context is co-constitutive. The workspace is therefore conceived of as central to one's work practice.

## 4.1 Aesthetic categories, aesthetic judgments, and organizational knowledge creation

To understand the relationship between organizational actors' personal and symbolic knowledge and knowledge creation in their work practice, it is necessary to first examine the nature of aesthetic categories and aesthetic judgments and how they interact

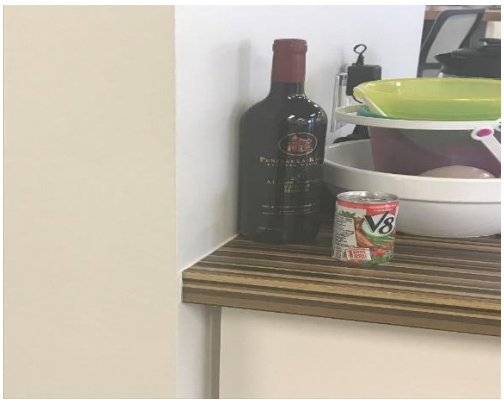
within a practice to produce new knowledge. This study reveals that aesthetic categories and aesthetic judgments contribute to the "normative accountability" of the practice (Gherardi, 2012, p.75). Giving normativity to a practice is a dynamic whereby practitioners define a practice on the basis of judgments as to what makes a good or bad practice. Photo elicitation and leadership participants' use of the categories and their aesthetic judgments reveal the tacit negotiation surrounding the development of knowledge of their way of working – what they like and dislike about it, what is pleasant and unpleasant, what is appropriate and inappropriate.

The role of aesthetic categories and aesthetic judgments was largely adapted from Strati (1999). Nine aesthetic categories predominate in studies of organizations: the beautiful, the ugly, the comic, the tragic, the sublime, the sacred, the picturesque, the agogic/rhythmic, and the graceful. The way in which these phenomena present in the experience of organizational actors has implications for this study. An analysis of the photo elicitation interview data reveals that aesthetic categories and aesthetic judgments emerge in relation to participants' sense that norms and values underlying the practice are either upheld or violated. In this study, norms are appropriate ways of behaving/enacting the practice, and values are ideals or principles held as important and significant in enacting the practice. Both account for the normative accountability of the practice, and so knowledge, in the form of norms and values, is both created by and creating the practice of working independently in the collaborative workspace.

**4.1.1 The Beautiful** The way in which participants identify and create balance in their engagement with the open concept office environment, the informality of attitudes and attire in the space, spontaneous and considerate relations with colleagues, and their

appreciation of modern technology and comfortable, attractive surroundings reveal their sense of the beauty and virtue underlying the practice. One participant, for example, discusses an ideal ratio of working from home to working in the office: “So you are, for example, three days in the office, or four days in the office, and then one day you work remotely. It’s the perfect model, right?” (R2). Another participant highlights the beauty of the fact that the organization’s informal environment recognizes that employees need a sense of balance between hard work and relaxation, referring to the message conveyed by bottles of juice and red wine left out on a countertop in the middle of the workspace: “Wow. This place is great. They recognize that sometimes, people just need a break and a glass of wine to keep their lives balanced” (R5).

Figure 2: *Informal items found in the open concept workspace*



Another participant refers to the organization’s balanced approach in terms of expecting hard work from employees while allowing for a high degree of autonomy: “I like being in an environment that’s a little bit more liberal and a little bit more flexible. That’s kind of what I’ve been used to. But, yeah. We’ve got a good balance here, I think”. Staff are trusted to spend their time wisely: “You can look at the CBC or the

weather, or even the sports, and no one's going to think you're bad or you're not working, right? Which is kind of good" (R2).

Related to this is the aesthetic judgment, shared by all participants, that informality and spontaneity are beautiful aspects of the practice. These are reflected in things like employee attire and interactions. For example, one participant reflects on informal attire and how it mirrors the ethos of working in the space: "I barely wear a suit and tie anymore, except when I go to Toronto with meetings with vendors" (R1). Physical proximity in the open space allows for informal, spontaneous interactions, which lead to closer connection with colleagues and positive work outcomes: "I'm like 'Oh, I'll just ask them, because they're right there'. And I think it makes my work faster and better for sure" (R4).

Participants' appreciation of modern technology and comfortable, aesthetically attractive surroundings also reveals their sense of the beautiful within the practice. For example, participants imbue the fact that the technology provided to employees supports the ethos of the practice of working independently in a collaborative workspace with a judgment of "goodness": "I like the fact that they've been prepared to spend a little bit of money in terms of getting us decent tech, which is good. It makes it easier and more pleasant for people to do their jobs" (R1). Another participant expresses that "this is as good as it gets" when referring to the way in which actors are able to have "creature comforts" in enacting their practice in the open concept workspace (R5). Working with modern furnishings in the space allows organizational actors to move computer monitors and desks into personalized configurations supportive of different aesthetic preferences:

"I mean, these desks I like because of the fact […] that you can run them up and down and you can stand. I had that in my office and I always liked that" (R3).

The aesthetic attractiveness of the space also contributes to the beauty of the practice of working independently in the open concept workspace. Most participants comment on the importance of natural light and the sense of openness of the space. For example, one participant reflects that "there's a lot of natural light, which I think is good […] it makes a huge difference" (R1).

Perceptions of the beautiful highlight values of informality, spontaneity, collaboration, productivity, flexibility, autonomy, using sophisticated technology, connection, comfort, aesthetic attractiveness of the space, consideration for colleagues, and convenience that inform the enactment of the work practice. Norms that sustain a "beautiful" way of doing the practice include approaching work with an informal attitude and attire, being flexible and spontaneous, and providing colleagues with immediate and direct help.

**4.1.2 The Ugly** The way in which participants discussed colleagues' disruptive and inconsiderate behaviour in the space, leadership's disregard for employee experience in decision making, and leadership's inauthentic representation of the practice of working independently in the open concept workspace reveal participants' sense of what is bad, unpleasant, repugnant, fake or wrong with the practice.

Disruptive behaviour like socializing or speaking loudly is an unpleasant aspect of the working in the open concept space, and one of the main disadvantages of working in the space: "[Y]ou have colleagues that just want to chat, and then you can't focus" (R2). Participants expressed frustration at colleagues' inappropriate use of the space when they

have offices available to them (R2, R3, R5): "[W]hat really annoys me is when I see people that I swear have offices and they're frigging sitting down there having a meeting, right? Because it's like, "What are you doing here?" (R3). Disruptions caused by socializing in the space have direct negative impacts on productivity, as exemplified in R3's description of a specific incident captured in a photograph:

> I took this picture one day, yeah after two individual conversations, they just both spring up at the same time. It went from being really, I was concentrating and I was working and being efficient and blah blah blah and feeling all good about it to like, okay, not only one of you but both of you are disrupting me, no concept right? It wasn't like a quick conversation. They both went on for quite a while and for them, you look and they're both having really good conversations about something. But there's sort of and you wonder sometimes, you're thinking like that's really good, but obviously no consideration for the people sitting beside you. (R3)

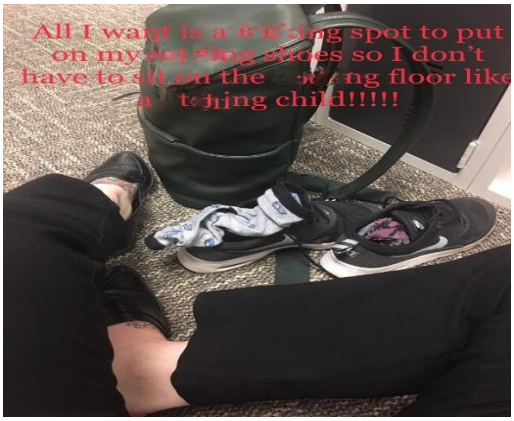
Participants describe overhearing discussions of an inappropriate nature, such as gossip or personal sharing of sensitive information, in the open concept workspace. One participant alludes to this particular facet of the practice as its dark side (R4). Most participants feel that having inappropriate discussions is an incorrect way of enacting the practice (R2, R3, R4, R5).

Colleagues' disregard for tidiness is another unpleasant aspect of the practice. Participants describe the inconvenience of dealing with messes created by others in the shared workspace. Participants express disgust at dirty dishes and food remnants left by colleagues in shared workspaces: "Your mother is not here to clean up after you. Clean up after your dang self. That's one of the downsides of working in an open office space" (R3). Employees "hot desk", meaning there are no assigned desks and employees work wherever there is a space available, and consideration for others is expected. The experience of "constant movement and picking up and resettling in different spaces",

means that sometimes “maybe you’re touching [colleagues’] things and moving them over” (R5). Leaving one’s work and personal belongings at workspaces while being elsewhere is considered inconsiderate. The general rule is “[d]on’t leave your crap lying around and be respectful of when people do leave their stuff there” (R5).

Linked to the disruptions that are a regular part of the practice is an overall perception of ugliness in the way in which leadership has handled the design of in the employee experience in the open concept workspace. Some participants express concerns that the leadership team either does not make an effort to understand employee experience or does not care about it (R2, R3, R4). The decision-makers behind the move to the open concept workspace do not experience the practice themselves: “[A]ll the people who are designing the open concept have desks” (R4). Decisions are thought to be made about the workspace without regard for the inconvenience or discomfort they will cause to employees.

Figure 3: *The ugliness of a leadership decision to remove functional seating in the workspace*[1]




[1] Photograph annotation has been re-touched to remove expletives.

Another participant echoes the belief that leadership does not understand the employee experience in the open concept workspace, and further interprets the actions of the leadership team to mean that they, in fact, do not even care about it: “I feel like the people I work for don’t give a [expletive] if I’m efficient. Right? And I spend more time trying to cope with things than actually doing what I should be doing for the salary I’m paid” (R3). Leadership’s inauthentic representation of the organizational transition to working in an open concept workspace is also seen as ugly: “I remember when it first started and somebody said to me, ‘Well, apparently you all really like it down there’. I said, ‘Who the hell told you that?’ He/she said ‘[Colleague]’ and I said, ‘No, no’” (R3).

Perceptions of ugliness highlight values of comfort, convenience, consideration for colleagues, productivity, and leadership responsiveness to staff that inform the enactment of the work practice. Identifying elements of the ugly reveals violations of the norms of the practice in the form of discussing inappropriate topics, disruptive socializing in the open concept space, and leaving one’s belongings and mess in the shared workspace (violating the norm of “hot-desking”, or being mobile in the space).

**4.1.3 The Comic** The way in which participants describe the frenzied nature of interactions in the open concept workspace, good-naturedly joke about the challenges of concentrating in the workspace, and poke fun at the feeling of being highly visible in the open concept space reveal their perception of the comic in working independently in the open concept workspace. Referring to an organizational program called “Coworker Coffee”, in which employees are encouraged to network via coffee dates with one another, one participant described the practice of working in the open concept workspace as having “the mentality of coworker coffee, but on crack” (R4). A level of absurdity is

ascribed to the way in which employees are expected to be constantly interacting in the space. Another participant finds comedy in the absurdity of certain adaptive strategies for working in the space, especially in response to noisy colleagues. For example, the act of inserting a finger into one or both ears is used to block noise in the open concept workspace. In describing the photograph as a favourite, the participant explains the reasons for selecting it for the photo elicitation interview: "When I look at that picture it's like, holy crap, this is what it's come to. I have to put my fingers in my ears to work. Isn't that silly? I feel like a kid "(R3). Jokes about the challenges of concentrating in the workspace make fun of the level of noise disruption in the space.

Perceptions of the comic highlight values of informality, connection, consideration for colleagues, and productivity that inform the enactment of the work practice. Identifying elements of the comic reveals norms such as informal behaviour and violations of the norms of the practice in the form of disruptive socializing.

**4.1.4 The Tragic** Descriptions of shared moods and experiences of heroically surmounting challenges reveal elements of the tragic in participants' work practice. Employees are affected by shared moods in the open concept workspace. In describing a photograph of a black-and-white cityscape taken after news of a tragic shooting in downtown Toronto, one participant describes the way in which feelings affect the atmosphere and mood of employees working in the shared space: "I think this was the day after the attacks. I took that photo because, you know, you could feel it in the office. That incident reflected on the mood" (R2). In reference to the same event, R1 explains that: "Actually, we didn't talk about it. […] You could see that people were…I don't

know, feeling empty". Employees are connected in the shared environment, reflected in their shared actions and moods.

Figure 4: *Black and white photograph reflecting the mood of the office after the 2018 Toronto van attack*

The tragic is also highlighted in participants' descriptions of the struggle endured in facing and overcoming great challenges at work. One participant reflects on a tired-looking self-portrait photograph (a "selfie"), explaining that it serves as a reminder of the immense obstacles faced as part of work on a project: "I'm feeling a little worn out. It's been a long few months, and I think it's just the pace of the work and the uncertainty around the discussions with the vendor and stuff like that" (R1). Another participant describes a more positive experience in the open concept workspace, in which team members are able to spontaneously collaborate in addressing obstacles: "It's like something that we overcome, you know, given the challenges that we have. And I think it's saying, 'Hey, there is a reason why we should be optimistic in going forward" (R2).

Perceptions of the tragic highlight values of connection and collaboration informing the enactment of the work practice, and identifying elements of the tragic reveals norms such as being flexible and spontaneous and providing colleagues with immediate and direct help.

**4.1.5 The Sublime** For most participants, the move to working in an open concept office was mandatory, and so this is offered as a possible explanation as to a lack of deep aesthetic engagement with the purpose, or beauty, of the change. The sublime is evident to a very limited extent in the data: in one participant's allusions to the beauty that is no longer part of the work experience in the open concept workspace. R3 describes a longing for the "way things were" when working in an office as compared to the open concept workspace: "The thought of moving into an open concept was not, like, I didn't volunteer right when the first round went. I was so glad to get an office".

Most of the other participants intentionally reference the positive aspects of the work practice or attempted to present a balanced view of their experience in the open concept workspace. R4 offers that "I know I did two [positive examples] and two [negative examples]. But I would say, if I were to do this over the full year, I would probably have ten miserable experiences and a hundred positive interactions". Participants compare their work practice in the open concept office with their experience working in cubicles: "I really like the open concept […] In the beginning, I would be like, 'Oh my God, this was the end of the world.' Getting out of the cubicle, my dear cubicle and me, you know?" (R2). They emphasize positive adaptations to the constraints of the space, such as going paperless (R1, R2, R4). R1, for example, recalls that "when I had an office, I remember having stacks and stacks of paper".

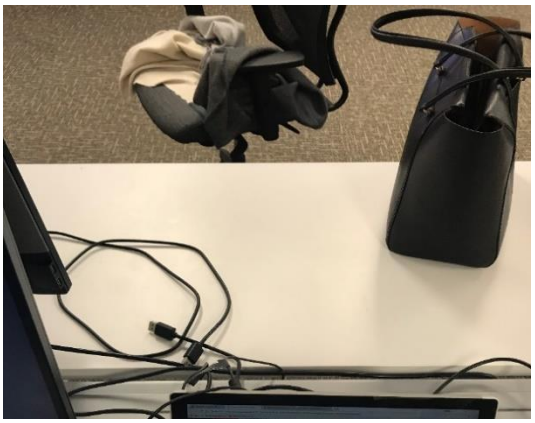
So, while the sublime does not appear extensively in the data, where it does, it reveals the way one participant values using sophisticated technology over more analog work methods in enacting the practice of working independently in the open concept workspace.

**4.1.6 The Sacred** Participants' descriptions of invisible territories in the office and of the delineations marked out by respect for the personal belongings of their colleagues reveal perceptions of the sacred in their work practice. For example, participants recognize invisible boundaries within the workspace that separate consultants from employees of the organization. That this is an appropriate seating arrangement is unspoken and symbolic (R1, R2). Invisible boundaries exist not only between corporate employees but also in the sense of age-clustered seating. There is a perception that employees tend to sit with their own age cohort, and that this might be due to more traditional preferences when it comes to work seating:

> But I kind of feel like…that seems to me more where the younger folks hang out. No, it's true! There seems to be a little bit of age clustering going on. I think that what I've noticed is that generally the older people, which I would put myself in that category, are along the long windowed wall in the [project] area. Right? Because they feel more desk like. Right? Whereas, I notice that the communal tables in the [project] area, not entirely, but at least the low tables, seat more of the younger people. (R1)

Participants also avoid using "reserved" workspace. Although hot-desking is the expectation within the open concept workspace, participants respect space that has been saved, usually demarcated by colleagues' unattended belongings. This can be challenging in an environment with limited workspace, and participants can feel as though they are violating a group norm when they trespass on this "sacred space" out of necessity.

Figure 5: *Practitioners respect "reserved seating" demarcated by unattended belongings*



In describing the motivations for moving a colleague's personal belongings, R5 explains that "when I wanted to use [her] space, I went out of my way to move her stuff so that I wasn't encroaching on her space. I was just kind of borrowing it, but being respectful". There is an acknowledgement that R5's colleague's personal belongings have marked the space as reserved, and that it would not be appropriate to move the items and claim the space for oneself unless it is done in a respectful manner.

Perceptions of the sacred highlight values of connection and consideration for colleagues that inform the enactment of the work practice, and identifying elements of the sacred reveals that employees are expected to be mobile in the space, and also that leaving one's belonging's in the shared workspace is a violation of a norm of the practice, causing inconvenience to other practitioners.

**4.1.7 The Picturesque** Participants' descriptions of domestic, informal objects in the workplace and of playful office decor highlight the picturesque in their work practice. Participants describe the presence colleagues' personal items in the workspace and how this fits with the informal ethos of the environment. The practice is enacted in such a way that the line between domesticity and work becomes less clear: "All of a sudden, there's

wine bottles around. There's people's things getting mixed in with mine, and food, things that we don't really associate with the workplace" (R5).

Serious work and fun co-create the workspace and the practice (in reference to the photograph of the wine bottle in section 4.1.1.1):

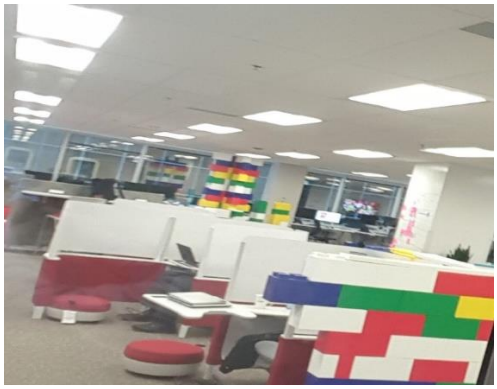
> Here I am doing a very boring report. I look over and see this assembly of not so boring items, which was the remnants of a beer and cheer, which I'd missed, but too bad for me. I just wanted to kind of capture how out of place these items are, but also how casually they were just left there. They're both invasive objects and very much a part of the way our workplace is. Nobody would be like, 'Oh, I should put this away because it doesn't need to be out'. It's just like, 'We'll leave it out there until either someone does something about it or we have another beer and cheer and we just end up consuming it' (R5).

These items highlight a personalization in the space, in alignment with the informal and spontaneous way in which the practice is enacted.

Figure 6: *Personal belongings are often found in the space*

Lego blocks fit with the informality of the atmosphere: "I mean Lego blocks are cute and I think they add a bit of colour to the space" (R1). They evoke a sense of playfulness, but are also a functional design element as they can be arranged in useful configurations: "Someone had set up the Lego blocks in a really interesting way, I think between two pods. I know there's one that has the Lego all around the pod, but I think someone had set up a wall between pods" (R4).

Figure 7: *Lego blocks add a quirky and fun element to the space*



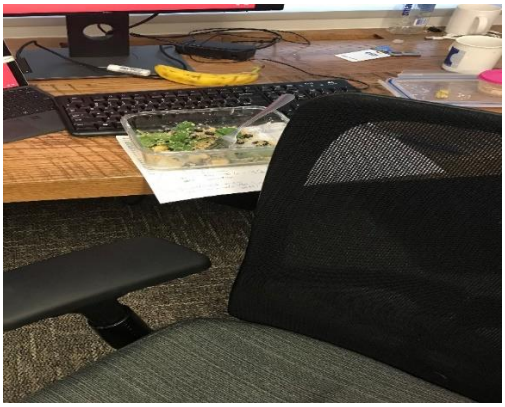
The picturesque highlights the values of informality, spontaneity, comfort, and aesthetic attractiveness of the space informing the enactment of the work practice. Identifying elements of the picturesque reveals norms such as being flexible and spontaneous and approaching work with an informal attitude.

**4.1.8 The Agogic/Rhythmic** Participants' references to the pace and flow of work, and the regularity of disruptions in the space, reveal perceptions of the rhythmic in their work practice. Most participants discuss the hectic (and perhaps unsustainable) pace of their own work in the space. One participant describes a busy, deadline-driven work schedule with little room for deviation from regular tasks: "My work is so deadline oriented that I need to do this by this time. I can plan my year to the day" (R4).

Another participant discusses the toll of many months of hectic project work: "I'm feeling a little kind of worn out. I think it's been a long few months, and I think it's just kind of the pace of the work and a bit of the uncertainty" (R1). Related to this is the acknowledgement by participants that meetings are constant and it is difficult to get time to complete work tasks. R5 describes a particular point in time during heavy project work:

> I think we were working on understanding the impact of the revised scope for the project and there were a lot of meetings and producing a lot of documents. It was a very busy time, hence the lunch at desk, not actually taking a break, a lot of collaboration. Again, a lot of meetings, so that was hot that fit into the quick touch and go sitting at a desk for 30 minutes and then going. It was definitely a stressful time.

Figure 8: *Finding time to eat lunch in between frequent meetings*



R2 reflects that work relationships are strained by the organization's meeting cadence: "I see you a lot when I'm in the office, but I'm constantly in meetings anyway, so I don't get a chance to talk to you that much".

The rhythmic is also apparent in descriptions of the flow of people in the space. Participants recognize times of the week when there are fewer or more employees in the workspace, and the associated level of disruption. In describing a photograph, one participant provides insights regarding the ebb and flow of people in the office: "Fridays in the office, in the work space, are quite quiet. Compared to, as you know, as compared to earlier in the week. Mid-week can get a little bit noisy and crowded" (R1).

Being mobile in the workspace is part of the rhythm of the work practice. All participants describe moving around in the space, or "hot-desking" and the way it impacts their work. R5 describes it as "constant movement and picking up and resettling in different spaces […]'. This flexibility in seating arrangements is a generally accepted part

of the way the practice is done: “I like being in the [project] area. I can move around a little bit” (R1). However, so much activity and movement in the space can negatively impact practitioners’ concentration. For example, as R1 explains, “I find there’s a bit too much movement and too much distraction”. Another participant describes how the frequent disruptions of colleagues using the centrally-located coffee machines punctuates the practice. This aspect of workspace design means that “even if the office is quite empty, because it is so open, sound travels and you can be disturbed. Within the one space is the coffee machine; it promotes quick chatter, but [it is] quite frequent during the day” (R4).

The rhythmic highlights the values of productivity, connection, collaboration, and consideration for colleagues (when the value of consideration is not upheld, as in the case of frequent disruptions in the workspace) that underpin the way the work practice is enacted. Identifying rhythmic elements of the practice reveals norms such as being mobile in the space and engaging in frequent meetings and violation of the norms of the practice in the form of disruptive socializing.

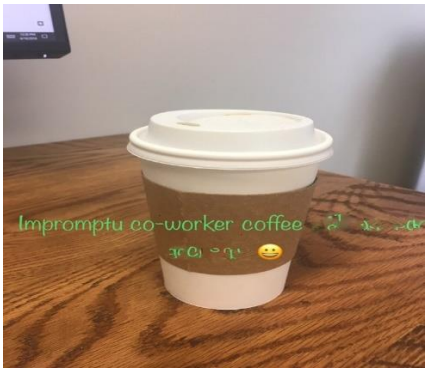
**4.1.9 The Graceful** Participants’ descriptions of pleasant relations between colleagues and interpersonal connection, spontaneity and flexibility at work, the feeling of comfortable informality at work, and the elegance of the workspace and technology reveal aesthetic perceptions of the graceful in their practice. Most participants perceive frequent, spontaneous interaction and collaboration to be a positive component of the practice. R2 discusses a moment of spontaneous collaboration that produced a positive work outcome:

> That picture on the wall is because me and [colleagues] were sitting after the bad news of, you know, this meeting and we said, ‘Well, let’s respond to that’, right?

> So we put the things on the wall. We build a counter plan, and we felt much better. So, you can see he's smiling. So, it's like…I think it was really spontaneous. It was nothing that we scheduled.

Spontaneous collaboration is part of the way the practice is done. Practitioners feel good about this: "It reflects the positive atmosphere, you know, like something that we overcome given the challenges that we have" (R2). They receive immediate help with work tasks: "If [colleague] wasn't there, I would have had to send an email. Or I would have had to physically go find her" (R4). A discussion of a photograph capturing an impromptu coffee outing further illustrates the way in which frequent interaction in the work practice enhances connections between colleagues and the well-being of practitioners: "There were just people there, and we were all randomly free at the same time. It didn't require any planning. I think we were gone for eleven minutes. It wasn't long, or anything, but it was nice" (R4). This spontaneous collaboration is inclusive and positively impacts productivity: "Taking breaks and actually knowing your co-workers makes you better at your job". Working in the open concept workspace also enables practitioners to expand their corporate network, which is also seen as beneficial: "People I know who sit in cubicles don't know as many people […] And I think it helps to know more people at work" (R4).

Figure 9: *Spontaneous interaction between colleagues is a graceful element of the practice*[2]




Interactions in the space are typically informal: "It's totally cool to talk about the date you went on and then go in and do a very serious presentation about your new budget. Maybe that's just the new world of working in an open space" (R5). Participants see this, again, as a graceful element of the practice: "I find just knowing who people are, and how they take their coffee, and stuff, it's a thing we should know. We spend so much time with these people" (R4).

Some participants also describe the visual appeal of the physical workspace and the tools they use to do their jobs. The office is "very nicely decorated with wood desks and bright light in the room. I think it was decorated really well. It's got lots of bright light, which is nice" (R3). Most participants appreciate the sophisticated, portable tools the organization provides, recognizing them as key supports for informal collaboration, such as instant messaging and video-conferencing (R1, R2, R4). Streamlined tools make it easier for practitioners to enact the work practice. The tablet-like device used by practitioners is "a good device in this context" and "fit in with the ethos" of the practice (R1).

[2] Photograph annotation has been re-touched to remove employee names

Participants' perceptions of the graceful in their practice reveal values of productivity, connection, collaboration, spontaneity, informality, aesthetic attractiveness of the space and using sophisticated technology. Identifying graceful elements of the practice reveals norms such as being flexible and spontaneous, approaching work with an informal attitude, and providing colleagues with immediate and direct help. Participants derive aesthetic pleasure from these norms of the practice.

**4.2 Norms and values of the practice** Practice is a collective knowledgeable doing, and competent participation in a practice is achieved by maintaining a common orientation (Gherardi, 2012, p. 3). In working independently together in the collaborative workspace, participants generate knowledge of how to do the practice, which reciprocally forms the basis of the practice itself. As summarized in Table 2, participants' aesthetic perceptions and judgments reveal practitioners' sense of how the practice *should* be done.

Table 2: *Summary of norms and values creating and sustaining the practice*

| ***Working independently in a collaborative workspace*** | |
|---|---|
| **Norms** | **Values** |
| • Being flexible and spontaneous<br>• Approaching work with an informal attitude<br>• Providing colleagues with immediate and direct help<br>• Being mobile in the space<br>• Engaging in frequent meetings<br>• Engaging in respectful, non-disruptive socializing<br>• Keeping personal belongings with oneself rather than leaving them in the workspace | • Informality<br>• Spontaneity<br>• Collaboration<br>• Productivity<br>• Flexibility<br>• Autonomy<br>• Using sophisticated technology<br>• Connection<br>• Comfort<br>• Aesthetic attractiveness of the space<br>• Consideration for colleagues<br>• Convenience<br>• Leadership responsiveness to staff |

### 4.3 Sensory knowledge and organizational knowledge creation

Themes relating to participants' sensory experiences arose out of the analysis. Sensory experience provides insight into the way in which the workspace informs practitioners' experience of work, and also highlights new knowledge created by and creating the practice. In the current study, although the sample size of five photo elicitation participants and two leadership participants was small, analysis revealed similar experiences across participants. Four major categories of sensory inputs emerged from the data, along with ways participants adapt to these inputs. Table 3 summarizes these inputs and the resulting adaptive strategies.

Table 3: *Adaptive strategies employed by study participants in response to noise, the need for privacy, the need for physical comfort, and the need to be mobile in the space*

| ***Sensory knowledge of the practice of working independently in a collaborative workspace*** | | | |
|---|---|---|---|
| **Strategies for Dealing with Noise** | **Strategies to Enhance Privacy/Solitude** | **Strategies to Enhance Physical Comfort** | **Strategies for Being Mobile in the Space** |
| • Whispering<br>• Sticking fingers in ears to block noise<br>• Wearing headphones/Listening to music<br>• Working from home<br>• Changing seating | • Facing window/away from colleagues<br>• Planning workload in advance<br>• Booking meeting space to do independent work<br>• Using phone booth for privacy<br>• Building Lego wall for privacy | • Planning attire or seating arrangements in advance | • Rotating locations within the space<br>• Being selective in terms of personal belongings |

The following section illustrates the ways participants describe their sensory experiences and how they cope with them in order to enact the practice.

**4.3.1 Noise disruption** Most participants express that, in general, the space requires "filtering out the noise a little bit" (R1). They consistently point to noise disruption in the open concept workspace: from colleagues' disruptive socializing to the hectic rhythms of busier times of the week. Practitioners are expected to be considerate of colleagues in the space and not disrupt others: "[You're] not supposed to be having a party or talking loudly or having meetings" (L2). Participants express frustration when this norm is violated, as it has legitimate impacts on concentration and productivity: "A positive of open work spaces is that these spontaneous conversations do take place […] A negative, though, is that they can, and in my case do, affect my ability to concentrate" (R3). Even though participants understand norms of the practice, they themselves may violate them: "The only thing I'm worrying about is that I can get too chatty and sociable and that I'm disrupting my work colleagues" (R1). Being distracted by noise levels in the open concept environment is an experience shared by most participants (R1, R2, R3, R5).

As illustrated in Table 3, participants employ a range of strategies to deal with noise disruption in the space. One participant expresses that "in the open space, […] sometimes you have to whisper in order not for someone in the other room to hear it" (R2). Another participant describes sticking fingers into ears to block noise: "I typically have to do this to concentrate when reading and noise in various forms distracts me […] If I put my fingers in my ears, in some cases I can just block it out completely and get through what I want to read" (R3).

Figure 10: *One participant's adaptive strategy to minimize noise disruption*

Participants also cite the use of headphones and listening to music as a way to minimize noise disruption in the open concept workspace and enhance productivity. R1, R3, and R4 describe feeling dependent on wearing headphones and listening to music in order to be productive:

> I can't get anything done. It's like, I need them. I need my headphones, and I go on this panic if my headphones aren't charged, or if I forgot [them]. It's like, 'ugh, this day is going to be the worst'. (R4)

Participants also listen to music in order to enhance productivity: "For me, yeah, listening to music's important just in terms of giving me a little bit of that space. And filtering out the noise a little bit" (R1). Participants express that, for some tasks, noise distraction in the open concept office is too severe and it is preferable to either change location or work remotely: "I tell you, if I need to write something or do something, it's very hard to concentrate. So, then, you know, I either try to find a space or I work from home" (R2). Some participants prefer to change seating to complete work tasks requiring more concentration like analytical writing tasks: "[There] were a lot of people around. And so, I just needed to focus. So, I went and found one of the pods, so that, I was like, 'okay, I'll be able to focus'" (R4).

**4.3.2 The need for privacy and solitude** Participants feel constantly visible to colleagues in the open concept workspace. As one participant explains, the office is "a panopticon. You're all looking at each other all the time" (R5). It is difficult to do anything in the office without being observed, including participating in a research study: "Most likely 50 percent of the people will see you in one area of the office, and then if you go into another one, the other 50 percent will see you there" (R2). Practitioners sometimes need privacy or solitude to complete work tasks, and have learned how to address this in their work practice.

To minimize interruptions, participants will do things like work in a private pod or sit facing away from colleagues. The general rule is that "no one bothers you in the pods. It's like, unspoken. It's the same if you face your chair to the window. No one talks to you" (R4). The pods also serve to enhance one's sense of solitude in the space: "To me, it's like horse blinders. You can't see all the fun stuff going on around [you]" (R4). However, the pods have limitations in that they do not provide enough privacy for certain tasks: "Sure, I can use a pod. I find they don't provide you enough privacy for telephone conversations. So, if I'm doing a telephone conversation, I'll usually use either the phone booth or one of the small meeting rooms" (R1).

Using phone booths is another strategy employed by practitioners, although they are not ideal for longer work periods as they are not particularly comfortable: "I don't mind the photo booth for privacy. I do find them a little bit kind of hot and stuffy sometimes. A little bit uncomfortable. I don't like being in them for more than like half an hour" (R1).

Figure 11: *Phone booths (seen at the end of the hall) provide privacy in the open workspace*

Due to the lack of privacy in the open concept workspace, participants also use meeting rooms to get work done. Sometimes it is easier to complete one's work alone in a quiet room: "[When] a meeting ends early, I stay in the conference room for half an hour" (R3). It is difficult to get uninterrupted private time to complete tasks in the open concept workspace, and so using meeting rooms for individual work is sometimes the best solution, as expressed by R5 in describing a photograph: "I have people coming up to me a lot and asking questions. I find myself booking rooms whenever I need to kind of get away from the space".

Participants also highlight a tendency to work from home when solitude is required. Often, they plan their workload in advance so that tasks requiring more concentration, such as reading or writing, can be completed on days that they work from home, leaving other tasks to be done in the open concept workspace. Individual needs vary with respect to the ratio of in-office work to at-home work; for example, R1 will "occasionally stay at home if I have to write a long document", while R3 prefers to "work at home probably two to three days of every week".

One amusing example of a strategy to enhance privacy is an anecdote that, at one point, a practitioner had set up Lego blocks in the open concept workspace to form a

barrier between pods: “Someone had set up the Lego blocks in a really interesting way, I think between two pods […] I’m thinking, ‘Is it one person who sits there all the time and thinks their neighbour is excessive, like, loud?’” (R5)

**4.3.3 The need for physical comfort** Participants work with their bodies; therefore, the way in which they experience physical comfort and discomfort while enacting their work practice is important aesthetic knowledge. Practitioners are inconvenienced when the workspace does not provide them with adequate material circumstances in which to be productive. Some participants highlight the disagreeable nature of furnishings in the workspace. For example, R4 describes frustration at having to sit on the floor to change footwear after a bench was removed from a coatroom/locker area in order to make space for more lockers: “And I was like, sitting on the floor like a child, and I was so mad. So, this is the one thing I want. This is it. I’m asking for a bench. I don’t think that’s unreasonable”. In this case, adequate furnishings were removed in order to make room for more storage, a decision that did not involve practitioners. Leadership’s perceived disregard for staff needs contributes to the participant’s frustration, but the primary concern is that changing footwear in the space will be inconvenient and uncomfortable: “Honestly, what am I going to do? How am I going to put my shoes on? There’s going to be mud everywhere, it’s going to be this whole thing. And, I was like, ‘Ugh’” (R4). Related to the lack of adequate furnishings in the space is participants’ ergonomic experience of the existing furniture. R3 and R1 allude to the lack of practicality of some of the furniture that has been selected for the workspace in that it is neither physically comfortable nor conducive to productivity:

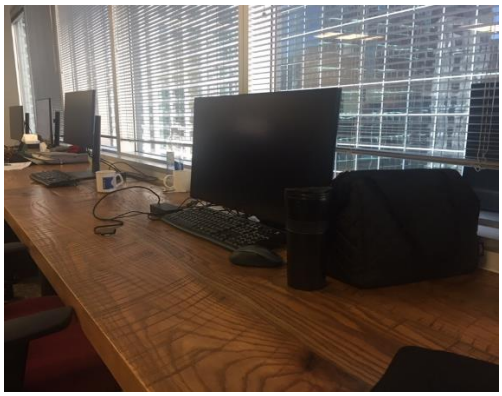
> Look, I made choices to not use the pods because I find the pods, as I discussed, don’t work. I don’t spend a lot of time in the other area, either. I find it hard to

> concentrate there […] I think people who are like in their 50s and above, like me, are going to want things that feel more desk like. That feel more like a traditional desk in an open environment, right? That we're not going to respond as well to café, communal tables, or whatever, right? High desks. I think we sometimes find that uncomfortable. (R1)

R3 comments on the ergonomic shortcomings of the furniture, its physical effects, and the level of inconvenience it creates:

> I took this picture one morning after spending approximately ten minutes of my day having to set up at the desk I was going to work at. I am limited to which desks I can effectively work at. Only those with external monitors that I can place in front of me as I sit straight in a chair, feet on the floor, are considered ergonomically correct. I try to find one of this type of workstation each day. I would suggest that approximately 25 percent of workstations fit this criteria […] I have an ergonomic mouse but find I am less inclined to use it because it has to be set up as well. Just adds to the time each morning. When my right elbow starts to hurt, I go back to being good and using it.

Figure 12: *Furnishings are aesthetically attractive but not ergonomically ideal*



Participants plan attire or seating arrangements in advance to enhance their physical comfort in the workspace. The informality of the space positively impacts the physical comfort of the practice: "I quite like being in a more informal, I find it more comfortable. I find it easier to do work" (R1). However, being comfortable in the open concept workspace requires forethought: "The type of environment that I knew I was going into, and the type of work I had to do, meant I needed to plan accordingly" (R4).

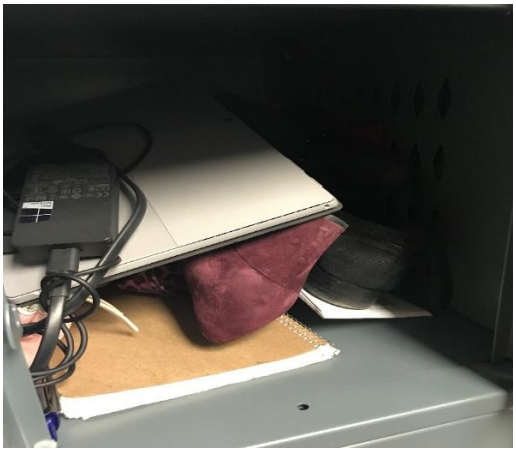
Even details like wardrobe decisions support the physical enactment of the practice: “I have a backpack, because I’m [in the open concept workspace]. I wear running shoes, because I take the bus” (R4). For R3, some planning is required in order to be able to work effectively in the workspace where a perceived 75 percent of workspace is not ergonomically ideal: “I have to plan my day in order to do this. I took the picture thinking, ‘Okay, I’m good. I’m set up now’” (R3). However, it is not always possible to sit at one of the more ergonomically correct workspaces, and this has real physical consequences: “It’s not like every seat in the place I think is available to me to sit there working. Because I’ve tried that and it’s like my body just takes a hit after a while, right?” (R3).

**4.3.4 The need to be mobile** Practitioners are expected to be mobile in the space: “It’s hot-desking. You just need to kind of grab your space and start working” (R1). This mobility has both positive and negative aspects. There is flexibility and autonomy in being able to “move to a different work station, like a couch or stand up desk, if you need a change of physical position” because “even ergonomically correct for seven to eight hours a day is uncomfortable” (R3). However, the constant rearranging of belongings can be challenging as well (R3, R4, R5). A hectic pace in the organization underpins the experience of hot-desking: “It’s definitely stressful: one, to find a spot; two, to sit down and carve out that space for yourself; and then do some work really quickly before moving onto the next thing” (R5).

In order to enact the practice, participants rotate locations within the space. Most practitioners tend to gravitate toward similar locations every day, despite having multiple options available to them: “It’s interesting, there are a lot of creatures of habit, too. We

tend to all go back to the same places" (R3). In fact, some practitioners openly opposed the concept of hot-desking when they moved into the open concept workspace and have been given designated seating: "Some people were very vocal in the beginning and got permanent spaces" (R3). This, however, is not true for the majority of employees in the space, and it is not true for any of the study participants. Some participants prefer to move around in the space based on work tasks. Being unencumbered by personal belongings in the space facilitates mobility: "I move around a little bit. I don't have any of my stuff there, right? I don't have, like, photos of my kids and all that sort of stuff" (R1). Learning to be mobile is a gradual process for some participants: "I'm still learning how to adapt, so not bringing everything to work, being more selective" (R5). Employees have small lockers to store personal belongings (see Figure 14), but, as illustrated in Section 4.1.1, it is expected that they not leave belongings at individual work stations.

Figure 13: *Employees store personal belongings in small, cubby-sized lockers but are otherwise unencumbered while working in the open concept office*



**4.3.5 Summary** The body is important in the analysis of situated work practices (Gherardi, 2012). In *doing*, participants are also *knowing*, and so the current study prioritizes the physical experience of working independently in a collaborative

workspace. Embodied knowledge of the practice includes strategies for dealing with sensory inputs such as noise disruption, a need for privacy and solitude, a need for physical comfort, and a need to be mobile within the workspace. These strategies constitute new organizational knowledge of the practice of working independently together.

### 4.4 The Connection Between Workspace and the Experience of Work

This study is influenced by the ways in which practice-based studies and knowledge management conceptualize the relationship between space and the knowledge created within that space. It explores photo elicitation participants' aesthetic and sensory experience in the open concept workspace and recognizes that these experiences take place in a workspace that is the result of a deliberate organizational strategy for change. Data from leadership team interviews and organizational documents (analyzed following the process outlined in Section 3.4 and 3.5) highlight leadership objectives behind the change and the way in which it has been managed and communicated. One leadership participant is a C-Suite executive who has been with the organization for four years. This individual is responsible for organizational operations and transformation. The other leadership participant is a senior director responsible for financial risk management. This individual has been with the organization for two years and manages a team working in the open concept office space in Ottawa and Toronto.

**4.4.1 Objectives for the open concept workspace** Organizational leadership considers the move to an open concept workspace to be part of "a whole transformation; [transformation meaning] change that has more variables" (L1). The new workspace configuration is meant to increase organizational performance and productivity:

"producing more stuff, doing more things, doing them better, in the same amount of time, with more or less the same amount of resources" (L1). Most of the documents analyzed (seven out of ten) foreground the organizational desire to create a productive work environment.

Enabling cultural change is another desired outcome of the move to an open concept workspace: "I very much believe that culture is a manifestation of physical space and vice versa. They influence each other" (L1). In terms of the nature of the desired cultural change, both leadership participants (L1 and L2) indicate that encouraging a culture of collaboration is a goal of the office redesign, and this is also communicated in most of the organizational documents (six out of ten).

The need to accommodate organizational growth has also motivated the change to an open concept workspace: "We were also adding more people, but we didn't necessarily plan to add more space" (L2). Organizational growth is framed as a positive phenomenon: "We have been in the enviable position of rapid growth, which translates into creating a positive work environment for our growing teams" (L1). The need to accommodate growth is highlighted in the way the change has been communicated to staff; five out of ten documents make reference to the need to make room for a significant number of new employees in an office space originally designed for fewer people. While organizational leadership acknowledges that the increased workforce will not be supported by increased physical office space, L1 stresses that the move to open concept has not been about reducing costs, but has rather been about using space efficiently: "One thing that can distort everything else is if people think it's economically driven. That's

when they stop trusting, thinking you're being cheap. We've managed to ensure that doesn't take hold, because if it does, then it doesn't work".

Leadership interviews and organizational documents, therefore, reveal that supporting transformational change, increasing performance and productivity, enabling a culture of collaboration, and accommodating organizational growth are the leadership objectives motivating the organizational change to an open concept workspace.

**4.4.2 Organizational approach to the change** The way the transition to an open concept workspace is implemented influences organizational members' experience of the space. Approximately one-third of all organizational members currently work in the open concept workspace, including a large number of consulting staff. The rest of the organizational members remain in cubicles and offices. Chronicled in organizational documents, the change to an open concept workspace has been rolled out in two phases. The first phase was voluntary, and the second phase was mandatory. In the first phase, completed in September 2016, employees voluntarily became "untethered", an organizational term that refers to the fact that they could optionally relinquish their cubicles and work in the open concept workspace on a trial basis (the voluntary move to become "untethered" is referenced in half - five out of ten - of the documents). If this arrangement suited them, they were able to remain in the open concept office on a permanent basis. In the second phase of the change, completed in March 2017, all employees working on a large program within the organization were required to relinquish their cubicles or offices and move to the open concept workspace. Only one of the documents analyzed discusses the mandatory move to the open concept workspace for program members. The organization has been actively redesigning the rest of the

office space from cubicles and offices to a more open layout, which will be implemented in 2019. This change will be mandatory for those staff who remain in cubicles and offices. Seven out of ten documents discuss the plans to convert the remaining office space into a more open configuration. All seven emphasize that the redesign efforts will enhance collaboration and accommodate the growing workforce.

While the first phase of the change was implemented on a voluntary basis, it still reflects a deliberate decision on the part of organizational leadership: "From the point of view of where we were when we started, [the open concept floor] was first. We always planned it that way. We would have it done first in Ottawa, Toronto was second" (L2). As something brand new to the organization, leadership made the decision to allow staff to attempt to work in the space if they felt able to do it: "The way we did it was on a voluntary basis. Those who want to do it, go untethered, can do it. That's the first level […] Then there wouldn't be the frustration associated with forcing one option on everyone" (L1). A result of allowing staff to voluntarily move to the open concept workspace was that leadership overestimated the amount of space needed for the actual number of people. "We thought also that there would be more people taking up the offer. We only had a few, and actually then the space was empty a lot of the time" (L1). One organizational document indicates that, while the organization aimed to move 20-25 employees in the open concept workspace in phase one, only 12 employees voluntarily made the transition.

As indicated, the second phase of the change has been mandatory for all employees who are part of a multi-year program in the organization: "At that point, we went to the next level. If you're in [the program], then you must be in this space" (L1).

Both leadership participants (L1 and L2) acknowledge that the mandatory approach has been frustrating for some. The transition has been difficult for some employees:

> There were about three people in the organization who really were not happy about it. They had serious issues. We told them, 'look, we're sorry, but this is the way it's going to be. You have to do it if you want to work in [the program]'. They've adjusted to it now, and I think they've stopped being frustrated by it. (L1)

One organizational document makes reference to this change by providing a summary of the anonymized results of a survey of program staff conducted by organizational leadership regarding employee satisfaction with the approach to the open concept workspace. The survey results indicate that staff are satisfied with perceived increased collaboration in the space, but dissatisfied with storage space, furnishings and technical support. The document does not discuss staff perceptions surrounding the mandatory element of the change. In the current study, of the photo elicitation participants who were affected by the mandatory move to the open concept workspace (R1, R2 and R3), only R3 explicitly expressed dissatisfaction with the fact that the move to the open concept workspace for program staff has been mandatory.

The third phase of the change to a more open office layout is ongoing: "So now, we will go one more round. We will be converting office spaces on the [other floors], and everyone will be able to do it" (L1). As discussed above, the majority of organizational documents analyzed in the study make reference to the organization's plans to redesign the remaining office space (seven out of ten documents). Two themes emerge from these documents: consultation of affected staff, and the accommodation of additional employees. Five out of ten documents make reference to the way in which a more open configuration will support a growing workforce. However, the predominant message in

all seven documents is that leadership will consult with staff in designing the new workspaces so that staff needs are taken into account in planning for the third phase of the transition to an open concept workspace. This staff consultation is being achieved through surveys and group forums.

The move to the open concept workspace has been implemented in a series of phases, each with its own characteristics. These characteristics reflect a process of refinement and learning: "I think the roll out of the open concept, at least I'm hoping, it has enabled [us] to really think about how [we] go about rolling out changes" (L2).

Table 4: *Organizational approach to the transition to an open concept workspace*

| | **Phase One** | **Phase Two** | **Phase Three** |
|---|---|---|---|
| **Timeline** | Completed September 2016 | Completed March 2017 | Target completion December 2019 |
| **Leadership approach to the transition to an open concept space** | • Voluntary; staff may elect to move into the open concept workspace<br>• Redesign planned entirely by leadership | • Mandatory for subset of staff<br>• Redesign planned entirely by leadership | • Mandatory for all staff<br>• Staff are being consulted as part of the redesign |
| **Staff experience of the change (according to organizational documents)** | • Low staff uptake | • Staff has expressed frustration with some aspects of the change | • No staff experience has been communicated yet as the redesign is ongoing |

**4.4.3 Leadership perspectives on the outcome of the change** Leadership participants and organizational documents reveal perceived positive and negative outcomes of the change. In Section 4.1.2, R4 expresses frustration that those designing the change are not actually working in the open concept workspace. This is only partially accurate; within

the organization, some leadership team members who have been involved in the workspace redesign efforts also work in the open concept space. In this study, of the two leadership participants interviewed, L1 does not work in the open concept workspace but L2 does. This means that, despite the small sample size, the leadership perspectives provided in the study represent a balanced picture of the way in which leadership understands the outcomes of the change.

As discussed in Section 4.4.1, seven out of the ten organizational documents communicate that the purpose of the change to an open concept workspace has been to increase productivity, and six out of the ten documents emphasize a desired cultural shift toward more collaboration across the organization. One document, already discussed, reports the results of a survey of staff working in the open concept workspace. These results indicate that staff perceive a positive cultural shift toward more collaboration, but are also frustrated by elements of the physical space such as storage and uncomfortable furnishings.

Leadership participants express divergent perspectives regarding the relationship between the open concept workspace and collaboration. L1 believes that collaboration has increased as a result of the open concept redesign: “People can meet and know each other cross-functionally. We really struggled with people working across groups before. In coordinated activities, people really didn’t know each other. Now people overhear conversations and hang out. They’re spending more time together”. L2, however, does not believe that collaboration has been enhanced by the move to an open concept space:

> From my perspective, collaboration is not about forcing people to go into a space, because, frankly, I can be in an open concept but never say hi to people around me. I personally don’t think it’s really changing how we collaborate, to be very

> honest. I don't think it's achieved the objective. I actually think that it's more disrupting how people work.

It is possible that this difference in perspectives regarding collaboration in the open concept workspace can be attributed to leadership participants' different experiences with the workspace. This study does not, however, take the position that one of these perspectives is more valid or accurate than the other, but rather seeks to capture the full spectrum of findings as they emerge from the data.

Only one organizational document, referencing the results of the staff survey, makes reference to negative outcomes of the transition to an open concept workspace. While staff responses indicate the belief that collaboration has increased within the organization, they also express dissatisfaction with elements of the workspace such as insufficient storage and inadequate furnishings.

Both leadership participants (L1 and L2) recognize that the organization has been slow to make improvements to the space throughout the first two phases of the transition and that the workspace is not a perfect fit for all employees. While L1 expresses that this lack of fit leads to staff sometimes "being ungrounded, feeling like a guest in the organization", L2 reflects that, more concretely, the workspace does not support all work styles, and, in particular, that it may be too disruptive for those who need quiet space or solitude to complete their work tasks.

Leadership participants highlight both positive and negative perceived outcomes of the transition to an open concept workspace. Organizational documents emphasize the positive objectives of the change, but only one document communicates the way in which staff have experienced the change so far. Similarly to the way in which leadership

participants express both negative and positive outcomes, this document presents a balanced view of the outcome of the change.

Table 5: *Leadership perspectives on the outcome of the change to an open concept workspace*

| **Positive Outcomes** | **Negative Outcomes** |
|---|---|
| • Increased collaboration (Source: L1, Staff survey) | • Does not support collaboration (Source: L2)<br>• Insufficient storage (Source: Staff survey)<br>• Inadequate furnishings (Source: Staff survey)<br>• Does not support all work styles (Source: L2)<br>• Staff feeling ungrounded within the organization (Source: Staff survey) |

**4.4.4 Summary** Like photo elicitation participants, leadership participants influence the practice of working independently together. While a practice is created through its enactment and knowledge of it is situated therein, organizational leadership is responsible for providing its enabling and constraining conditions. In the current study, leadership participants and organizational documents reveal organizational objectives for the open concept workspace, the ways in which leadership has designed and implemented the change, and its perceived outcomes. Objectives for the workspace include supporting transformational change, increasing performance and productivity, enabling a culture of collaboration, and accommodating organizational growth. While leadership perspectives on the outcome of the change are not completely aligned, it is clear that there is some organizational perception of increased collaboration as a result of the redesigned space,

as highlighted in L1's interview data and the results of a staff survey of approximately half of the employees of the organization.

### 4.5 Summary

This chapter provided findings on the way in which participants' aesthetic modes of knowing and the physical space itself create the practice of working independently in an open concept workspace. Together, the findings point to the relationship between the sensory, lived experiences of practitioners and the workspace as a context for organizational change. The next chapter discusses the implications of this research.

# Chapter 5: Discussion

The previous chapter examined how practitioners aesthetically perceive the experience of working independently in an open concept office space, how these aesthetic perceptions create new knowledge of their work practice, and the role of leadership and organizational strategy in creating and managing the context for the practice. Five themes emerged from the findings of the research: 1) the intersubjectivity of aesthetic knowledge; 2) working together as part of working alone; 3) reordering the flow of work; 4) materiality of leadership; and 5) leadership and staff perceptions of the workspace. These themes are discussed in this section.

## 5.1 The Intersubjectivity of Aesthetic Knowledge

The research examined aesthetic knowledge of a work practice at the individual level and the collective, intersubjective level. It conceptualized aesthetic knowledge of practitioners as tacit knowing in practice that is experiential and symbolic (Ewenstein & Whyte, 2007). Aesthetic approaches to studying organizational knowledge explore subjective phenomena, in that the perceptions of the senses are unique to individuals (Strati, 2003), and incorporating more subjectivism in organizational knowledge management research contributes to a more fulsome understanding of the way humans relate to each other and to their workplaces (Huizing, 2007). In this study, employees discussed their experiences working independently in an open concept workspace. Of interest to the research is how aesthetic categories, aesthetic judgments, and sensory perceptions were present in photo elicitation participants' descriptions of their individual work practices. The emergence of these phenomena provided insight into the way in which practitioners evaluate and enact their practice.

Even with the study's focus on individual work and the subjective nature of aesthetic knowledge, intersubjectivity emerged in the way in which participants experienced their work practice. Through their aesthetic perceptions, practitioners formed judgments about what is acceptable, unacceptable, pleasant, and unpleasant about the practice, and these illuminated the implicit norms and values they have attached to it. Practitioners have developed similar ways of doing their practice and evaluating how it is done, including behavioural and attitudinal expectations for those working in the space, although none of this has been explicitly defined by employees or the organizational leadership. These findings suggest that employees working in the open concept workspace have developed a tacit, collective knowledge of how the practice "should be done".

In addition to the intersubjective norms and values of the practice, participants' references to sensory perceptions revealed collective knowledge in the form of responses to their corporeal experiences in the space. Practitioners' senses were activated in similar ways within the workspace, and they employed adaptive strategies in response to noise, the need for privacy and solitude, the need for physical comfort, and the need to be mobile in order to enact the practice in a way that is considerate of others and conducive to productivity.

The degree of intersubjectivity in the findings regarding participants' aesthetic knowledge has implications for leadership and designers of open concept workspaces. As discussed, organizations often implement an open floorplan to promote a more "open" workplace culture; one in which individuals collaborate across hierarchical levels and departmental divisions, sharing knowledge and forming connections with one another. In

this study, while the open concept office space was perceived as promoting positive cultural transformation, it also imposed some constraints on practitioners. Participants consistently reported experiencing a high degree of sensory disturbance in the space, impacting their concentration and ability to complete analytical tasks. This suggests that this workspace configuration is not necessarily appropriate for all workers, nor all work tasks. It is, therefore, important that the organization carefully consider ways in which such a transition will be supported; for example, with activity-based, flexible design (as discussed in Candido et al., 2019; Haapakangas et al., 2018; Wohlers & Hertel, 2016) and support for remote work.

### 5.2 Working Together As Part of Working Alone

Prior to the transition to the open concept space, employees worked exclusively in offices and cubicles. Working independently in an open concept workspace is therefore a new practice in the organization. As reflected in the objectives described by leadership participants, the ideology behind an open workspace is that the environment will foster a similar degree of openness in the work culture by increasing teamwork and collaboration (Wholers & Hertel, 2016).

In describing their independent work practice, photo elicitation participants' consistently referred to collaboration with others in the space. The concept of collaboration was indivisible from the concept of working independently; in the open workspace, working with others underpins how one works alone. Collaboration was regarded as both pleasant and unpleasant, and this was reflected in the normative accountability of the practice. For example, when working in the open concept workspace, it is generally held as appropriate that practitioners provide colleagues with

immediate and direct help, engage in frequent meetings, and not disrupt others' work. Participants expressed disapproval and distress when norms were not upheld and values like collaboration, consideration for others, and connection were disrespected.

Participants' descriptions of working in the space revealed an aesthetic understanding that working together strengthens the way in which one accomplishes independent work tasks by enriching individual contributions. They also revealed the understanding that the expectation that employees are constantly available to others to either work collaboratively or socialize, as implicitly conveyed by the work environment, can undermine the focus required to complete work tasks independently.

### 5.3 Reordering the Flow of Work

The collapsing of spatial boundaries in the open concept office space required photo elicitation participants to reorder the way they worked. In response to the demands of their surroundings, they embodied new routines, new ways of interacting with colleagues, and new tactics to complete work tasks (Mengis, Nicolini, Gorli, Lebaron, Jarzabkowski & Pratt, 2018; Richardson & McKenna, 2014). Engaging in this ongoing reordering of their workspaces to meet their practical, structural, and psychological needs involved a number of adaptive strategies. Participants employed these strategies to reconstruct the purpose and functions of the space and the practice of working independently together.

To meet the practical challenges posed by the space, participants planned their workload, attire, and seating arrangements in advance. Participants also adapted their behaviour based on structural aspects of the space: keeping minimal personal belongings with them as they moved around, and working remotely more often. To address their

psychological needs for privacy and solitude, participants made physical adjustments such as working in phone booths or meeting spaces, or wearing headphones to minimize noise disruption, and symbolic adjustments such as facing away from colleagues to signal a desire not to be disturbed, or building a wall out of Lego blocks to segregate oneself from coworkers. Participants' ongoing reordering of the way of working through the employment of adaptive strategies demonstrates how the material workspace and the practice of working independently in the space mutually construct one another.

### 5.4 Materiality of Leadership

The "spatial turn" in organization studies refers to the growing attention paid by organizational scholars to the concept of space (Dale & Burrell, 2008; Dale, Wasserman & Kingma, 2018; De Vaujany & Mitev, 2013; Kornberger & Clegg, 2004; Mengis et al., 2018; Taylor & Spicer, 2007; van Marrewijk & Yanow, 2010). It exposes the importance of organizational space in social and cultural relations, as a materialization of power structures, as a lived experience, and as fluidly constituted by the practices and processes of organizing. This study explores the relationship between the workspace and one's experience of work. It therefore benefits from scholarly contributions asserting that space matters in organizing, and, in particular, from contributions conceiving of space as lived experience.

Leadership and material space are related to one another. In this study, the workspace conveys leadership values and objectives and leads employees through their embodied experiences (Ropo, Sauer, & Salovaara, 2013). These experiences shape their actions and interpretations; through working in the space, participants tacitly know what leadership expects from them. They understand that the space is designed to encourage

collaboration, openness, and flexibility. The material space communicates these leadership intentions, acting in some ways as a substitute for leaders themselves.

Some study participants expressed displeasure at the fact that leaders responsible for the design of the open concept workspace do not physically situate themselves in the space and believe that this has contributed to the inadequacy of the workspace in a number of ways. Participants suggested that leadership is "out of touch" with the needs of staff working in the space because they are not aesthetically and sensorially experiencing the space themselves, and do not, therefore, know the space nor the practice of working within the space.

### 5.5 Leadership and Staff Perceptions of the Workspace

Leadership and staff perceptions of the open concept workspace were aligned in a number of areas. In this study, leadership participants expressed a desire to transform the organization through a workspace that accommodates additional staff, increases productivity and encourages a culture of collaboration. The implementation approach has been refined over time, with some staff able to voluntarily move into the new, open workspace, and some required to do so as a condition of their roles in a large program. Within the small pool of participants, leadership members were not completely in agreement as to whether or not the space has successfully enabled these objectives, although official organizational communications suggest that the transition has increased collaboration. Leadership participants also acknowledged several negative outcomes of the move to the open concept workspace, primarily related to the physical furnishings and staff productivity.

Photo elicitation participants' descriptions of their experience in the open concept workspace revealed that the workspace *is* enabling more collaboration, but that this comes at a cost. Although they value increased connection with colleagues, individual productivity has suffered as a result of the move to the shared space due to noise disruption and a lack of private space. Participants acknowledged leadership efforts to support a comfortable work environment – for example, the provision of phone booths and work pods for privacy/solitude – but all participants nevertheless employ strategies to adapt to the space that were not required when working in cubicles and offices. This often involves things like working remotely or sacrificing physical comfort (for example, working on a stool for long periods of time without back support for lack of alternative seating options).

In addition to this, participants expressed the view that leadership has not been sufficiently responsive to staff needs in the open concept workspace. Some participants felt that making it mandatory for staff to work in an open concept workspace in the first place indicates leadership's disregard for staff needs. While, aesthetically attractive, the workspace is not perceived to be conducive to focused, analytical work. Participants speculated that this misalignment exists because leadership designed the space without any experience of working in an open concept office, and, since rolling it out, have not solicited staff feedback on what is working and what is not. For example, some participants feel the need to work remotely in order to complete tasks they could previously complete at the office and feel that this cuts them off from their colleagues. While this is not an option, they would prefer to have a dedicated workspace, like a desk, cubicle, or office, which would allow them to remain connected to teammates and better

support the way they work. Participants also reported that requests for more comfortable workspace configurations, such as more ergonomic, desk-like seating, have either been ignored or addressed slowly.

Both leadership participants and photo elicitation participants discussed positive *and* negative aspects of the workspace change. In fact, most photo elicitation participants disclosed their decision to submit photographs that represented pleasant and unpleasant aspects of working in the space in interviews, and all described positive and negative aesthetic experiences within the workspace. Leadership participants also recognized both positive and negative outcomes of the transition to the open concept workspace. They described the ways in which the space has positively affected the culture, while acknowledging that it does not perfectly support the way all employees prefer to work. What is important in this study, however, is the fact that the collective norms and values supporting the practice of working independently in the open concept workspace appear to reflect leadership's objectives for the space and their plans for further workspace transformation.

### 5.6 Summary

In summary, this study contributes to the literature on knowledge creation in organizations by looking at organizational leadership's role in providing its enabling conditions and the aesthetic experience of employees. The results of this study demonstrate that exploring tacit organizational knowledge will help scholars to better understand it as situated and mutually constitutive of work practice.

# Chapter 6: Conclusion

This chapter summarizes the research undertaken in this study, outlines its contributions, limitations, and makes suggestions for further investigation.

## 6.1 Research Summary

Exploring work practices and the context in which they take place reveals that new knowledge and new ways of working are produced as a result of both deliberate actions taken by organizational decision-makers and the aesthetic perceptions of practitioners. Using an exploratory ethnographic approach which combined text analysis, photo ethnography, and semi-structured interviews, the goal of this study was to investigate the relationship between the workspace and how organizational knowledge is created. Findings offered insight into the following research questions:

1. What is the relationship between knowledge creation and aesthetic modes of knowing?
2. How does the workspace contribute to one's experience of work?

Regarding the first question, organizational members' aesthetic perceptions of enacting a practice both create and sustain the practice. While the study's findings should not be generalized, common themes exist across practitioners' sensory and symbolic experiences within the workspace, highlighting the way the practice *should* be done and the ways practitioners adapt themselves to their surroundings. Interviews with photo elicitation participants reveal collective knowledge that is simultaneously created by and creating the practice of working independently in the open concept office space, such as norms, values, and adaptive strategies. Regarding the second question, the workspace functions as a material-discursive intermediary for the practice (Gherardi, 2005). The

workspace is comprised of physical space, the organizational members within the space, and the interactions that take place between organizational members and the space. It is the result of deliberate organizational strategy and communication. Organizational leadership determines the degree to which the space enables or constrains knowledge creation by designing the space to facilitate the achievement of cultural and performance objectives and managing the change process.

Both research questions are related in that photo elicitation participants' aesthetic modes of knowing form the basis for their experience of the workspace. Knowledge and practices are equivalent, in the sense that in doing the practice, one knows the practice (Gherardi, 2012). Through their bodily and symbolic interactions with the space, practitioners know how to "do" the practice of working independently in a collaborative space.

### 6.2 Implications and Opportunities for Further Investigation

This study brings together three concepts: aesthetic knowledge, practice-based research, and organizational space. All three concepts suggest avenues of further investigation. Firstly, this study identifies aesthetic knowledge as symbolic, personal and experiential. All of these aspects could be explored in further detail. While this research touched on how aesthetic knowledge emerges in participant interview narratives and their interaction with visual images, the methodology could be expanded and given more substance. One study participant provided photographic annotations, which added texture to the photographs as memory prompts. Use of annotations, and participant-generated "image-texts" (Mitchell, 1994; Warren, 2008), in which participant words (from annotations to longer narratives) and images are juxtaposed with one another, would

allow for a richer understanding of participant aesthetic experience of the moment(s) being captured. Additionally, bodily sensations could be explored further through directed lines of inquiry into the five senses to further illustrate practitioners' aesthetic understanding of the practice (Gherardi, 2012).

Secondly, this research looked at a new practice within an organization. No organizational member is unfamiliar with the concept of working independently; this is how most analytical work is completed. The study, however, looked at how practitioners manage to work independently in a new workspace that has been designed for collaboration. Unsurprisingly, practitioners were heavily influenced by the workspace and found it difficult to distinguish independent work from collaborative work. Further research could explore practitioners' aesthetic perceptions of collaborative work practices within the space, such as brainstorming or video-conferencing, in order to compare independent and collaborative practices in an open concept workspace and suggest ways the environment can be adapted to support all work practices.

Lastly, this study dealt with organizational space as an enabling context for knowledge creation. The findings show that leadership defines the context and mobilizes resources to drive toward desired outcomes, and that organizational space impacts both culture and productivity. Employees perform a range of activities in the space and have physical and social needs; the findings indicate that flexible floorplans that provide private, semi-private, and open workspaces (for example, A-FOs, as described in Wohlers & Hertel, 2016), will best support a variety of work styles. The results could be transferred to other organizations implementing an open concept floor plan and have

important implications for leadership in terms of designing the space to support the way in which employees actually work.

### 6.3 Critique of the Study

This study had some limitations. There is very little research on the role of aesthetic knowing as knowledge both created by and creating an organizational practice. The way in which the study conceives of aesthetic knowledge as symbolic, personal and experiential is influenced by theoretical and methodological approaches across organization studies. While this research emphasizes the way in which all of these facets interrelate as aesthetic modes of knowing, it is possible that this picture is incomplete, as there may be other facets that should form part of the framework of aesthetic knowledge.

Aesthetic knowledge was also explored only through the use of photographs and participant interviews. A methodology that incorporates image-texts (Mitchell, 1994), or visual elements *and* other sensory inputs such as sound, or taste, might produce a more complete "sensory ethnography" (Pink, 2009), enabling greater participant recall and richer description of the aesthetic experience of organizational life. Additionally, as part of the ethical guidelines for the project, participants were directed to avoid taking photographs that included colleagues or their personal belongings (Appendix E: Guide for Photo Elicitation Participants: <<How to take Photos for this Study>>). This was challenging for participants as the nature of work in the space involves others most of the time. Some aspects of the practice, therefore, could not be photographed and may not have been described.

While the small sample is heterogeneous, a larger study could also investigate the aesthetic experience of more participants in the space, eliciting perhaps more divergent or

similar views and could produce more generalizable results. A larger sample pool of leadership participants would have provided a richer perspective on leadership objectives and perceptions of the organizational change. Organizational documents available for analysis were typically short and did not contain rich content. Communication about the space took place largely via internal organizational emails, which, for ethical reasons, were not selected for analysis in the study. A larger and more diverse sample of organizational communication around the transition to the open concept workspace would provide a more nuanced understanding of how the change was managed and implemented.

### 6.4 Final Thoughts

The trend toward open concept office floor plans reflects evolving management styles in modern organizations. However, as this office design movement grows, more and more research suggests that collaborative work areas are distracting and, sometimes, even decrease collaboration. A 2018 study by Harvard Business School, for example, suggests that an architecturally more open workspace often overwhelms staff and causes them to socially withdraw from officemates (Bernstein et al., 2018).

While the open concept office is not without its merits, organizations should mitigate the openness of organizational floor plans to provide staff with workspaces conducive to concentration (Brown, 2017; Candido et al., 2019; Haapakangas et al., 2018). The current study contributes a practice-based perspective to the literature in this area, emphasizing the individual aesthetic experiences of participants and revealing organizational learning in response to the office environment. The findings of this study indicate that open concept workspaces both positively and negatively impact

organizational culture, but have primarily negative effects on staff productivity. They also suggest that organizational leadership can improve open workspace outcomes by taking employees' embodied experiences into account in the design and implementation process.

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## Appendix A: Ethics Approval

**File Number:** 12-17-07 **Date (mm/dd/yyyy):** 02/20/2018

Université d'Ottawa University of Ottawa
Bureau d'éthique et d'intégrité de la recherche Office of Research Ethics and Integrity

### Certificate of Ethics Approval

### Social Science and Humanities REB

**Principal Investigator / Supervisor / Co-investigator(s) / Student(s)**

| First Name | Last Name | Affiliation | Role |
|---|---|---|---|
| Mary F. | Cavanagh | Arts / Information Studies | Supervisor |
| Elizabeth | Marasse | Arts / Information Studies | Student Researcher |

**File Number:** 12-17-07

**Type of Project:** Master's Thesis

**Title:** "How Does Working Alone Together Feel?": Aesthetics Ways of Knowing and Creating Knowledge

| Approval Date (mm/dd/yyyy) | Expiry Date (mm/dd/yyyy) | Approval Type |
|---|---|---|
| 02/20/2018 | 02/19/2019 | Initial |

**Special Conditions / Comments:**
N/A



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**Appendix B: Letter of Information**

**Subject:** Participation in a Research Project to Study Knowledge Creation in a Collaborative Workspace

Dear [organizational leader name],

I would like to have the opportunity to conduct my Master's thesis research entitled *"How Does Working Alone Together Feel: Aesthetic Ways of Knowing and Creating Knowledge"* in your organization. This research is an exploratory study examining aesthetic, sensory ways of knowing and learning in the workplace - in particular, in a new open-concept office environment. Organization members likely have a shared definition of what it means to "work independently". The premise in this study is that "working independently together" is an entirely new practice, or way of working, because prior to moving into this informal, collective workspace, practitioners in the organization were working independently in cubicles.
From a practical perspective, studying work practices allows for an examination of knowledge as it is being created. The research aims to generate insights relevant to the fields of knowledge and information management and organization studies.

I would be asking five employees to take photos with a smartphone during their daily work activities for a four-week period. Before they begin this data collection period, they would be educated in photo ethics in order to respect the privacy of individuals on the premises. The participants would be asked to share their photographs with me, and I would hold 1.5 hour individual interviews in English to discuss the corpus of photographic data each has produced. These interviews will entail an open-ended discussion about five photographs of the employee's choosing, guided by a set of approximately 20 questions. These interviews will take place outside of working hours – therefore participation will require time outside of work as well as at work.

The project is meant to be an open-ended exploration of individual experience at work, and there is therefore no quantity requirement in terms of the number of photographs taken by any participant. I will, however, meet with all participants to explain and suggest types of moments that one might consider capturing in the course of daily work activities, but it will ultimately be at the discretion of the individual participant. I want to stress that participating in the collaborative photography is meant to be an enjoyable opportunity for self-reflection, as opposed to a burdensome interference with regular work tasks. Participants will be free to discontinue participation at any point during the data collection period or the interview process.

I would also be asking for two members of the leadership team to agree to individual 30-minute interviews in English to discuss the objectives behind the move to a collaborative workspace, and first impressions regarding the impact of the change on the organization. These interviews would consist of an informal discussion guided by a set of 3-4 questions. These interviews will take place outside of working hours – therefore participation will require time outside of work as well as at work.

Several measures will be undertaken to ensure 1) the participants freely agree to participate, 2) the anonymity of the participant and the organization are respected, and 3) information relating to the participants and the organization is secured. All interview data will be seen and analyzed only by me, as the principal researcher, and will be protected under the confidentiality sections of the Research Ethics Board approval process at the University of Ottawa. This means there will be physical, administrative, and technical safeguards protecting all the data for this project from unauthorized access, use, disclosure, modification, loss or theft.

This study is being undertaken in fulfillment of the requirements of a master's degree within the School of Information Studies at the University of Ottawa and is being supervised by [contact information redacted].

Your approval to conduct this study would be greatly appreciated. If you have any questions regarding this research, please do not hesitate to contact me via email or by phone.

If you agree, kindly sign and submit the letter of permission I have appended to this communication on your letterhead acknowledging your consent and permission for me to conduct this study in your organization.

Thank you in advance for your attention to this request.

[Contact information redacted]

**Appendix C: Interview Guide: Photo Elicitation Participants**

Respondent pseudonym:

Date of Interview:

Start time of interview:

Finish time of interview:

Location:

**Introduction:**

- Introduce self
- Thank the respondent for agreeing to the interview
- Review study purpose and goals
- Review the signed informed consent form once again
- Answer questions from the respondent
- Tell the respondents to feel free to ask any questions at any moment; to end his or her participation at any time or to choose not to answer any questions
- Reassure the respondent that there is no "right" or "wrong" answer. The researcher is interested in his or her experience; he or she is the expert

1. Principal investigator explains the format of the interview:
    a. This interview will be 1.5 hours in duration and will involve the principal investigator and each participant on an individual basis. The interview will be conducted in English only.
    b. The interview will be audio recorded on a secure device to which only I have access
    c. Interviewee selects up to five photos from the corpus of photos he/she has submitted
    d. Proceed with the investigator asking questions about the photos and the interviewee answering questions. The photos will be discussed in the order preferred by the interviewee.

Principal investigator:

Reiterates: I am interested in anything you have to say. If you would like to stop at any point, or decline to answer a question, please feel free to do so.

Interview Format:

*(Interviewee is presented with all of the photographs he/she submitted to the study. The Interviewee selects a photo to begin.)*

For each photo:

Investigator:

- "Tell me about this photo/What is the story of this photo?"
- "What did it feel like?"

After a maximum of five photos have been discussed, the investigator will continue to ask more general questions, choosing from among the following questions (depending on what seems appropriate at the time):

- "Is there a pattern that you see upon reflecting on the photos you submitted?"
- "Is there anything that surprises you or stands out to you?"
- "Aside from the photos, tell me about what's been going on in your work, and how it might relate to the photos here"
- "Do you have a favourite photo? Why is it your favourite?"
- "How did you feel about taking photos of your work?"
- "Did you learn anything about yourself?"

The investigator and the participant together will delete all of the photos not discussed during the interview.

To the extent that it is necessary in order to gain more detailed answers from the interviewees, the investigator will ask probing/follow up questions such as "tell me more about that", or "can you provide a bit more detail" as they provide answers to the above questions. The investigator will close the interview by thanking the participant. The investigator will encourage the participant to contact the investigator via email if he or she wishes to retract any of his or her statements, or add to them in any way.

Note:

The interview will end by letting the participant know that he or she can review the interview transcripts once completed (subject to confidentiality form). The researcher

will then ask the participant if he or she has anything else to add, thank the participant, and invite him or her to contact the principal investigator with any further thoughts.

[Contact information redacted]

**Appendix D: Interview Guide: Leadership Participants**

Respondent pseudonym:

Date of interview:

Start time of interview:

Finish time of interview:

Location:

**Introduction to the interview:**

- Introduce self
- Thank the respondent for agreeing to the interview
- Review study purpose and goals
- Present the consent form and review the information
- Answer questions from the respondent
- Tell the respondents to feel free to ask any questions at any moment; to end his or her participation at any time or to choose not to answer any questions
- Reassure the respondent that there is no "right" or "wrong" answer. The researcher is interested in his or her experience; he or she is the expert
- Invite the respondent to sign the consent form (two copies) and give respondent a copy

This is a study about working in a collaborative space. I have a general interest in learning and knowing at work. My study is interested in participants' aesthetic experience of work ("aesthetic" primarily refers to a perspective informed by sensory knowledge).

I am interested in speaking with you individually, as a decision-maker in the organization, about the decision to move to the open concept workspace model. This is meant to be an informal, open-ended discussion. I am interested in anything you have to say. If you would like to stop at any point, or decline to answer a question, please feel free to do so. The interview will proceed in English only.

This discussion, or interview, will be audio-recorded, but your identity will be kept confidential. I will be transcribing and coding the interview for themes to inform my research, but neither the transcripts nor the audio recording will be submitted with the final research paper.

Questions: (there is no defined number of questions that might be asked – this will be dictated by the length of the respondent's answers and how much is possible to accomplish in a 30 minute timeframe)

1) What were the objectives behind the decision to move to an open-concept office space? From your perspective, what was the leadership team hoping to achieve with this change?
2) What are your impressions, so far, about how it is going? Has the change been a success?
3) What do you think the move to an open concept workspace enabled? What do you think it has constrained?

Thank you very much for your time and your insights.

Note:

The interview will end by letting the participant know that he or she can review the interview transcripts once completed (subject to confidentiality form). The researcher will then ask the participant if he or she has anything else to add, thank the participant, and invite him or her to contact the principal investigator with any further thoughts.

[Contact information redacted]

**Appendix E: Guide for Photo Elicitation Participants: « How to take Photos for This Study »**

Dear participant,

My thesis is called *"How Does Working Alone Together Feel?" Aesthetic Ways of Knowing and Creating Knowledge*. The project looks at people's aesthetic, or sensory, experience of working in an open concept office.

As a participant in the study, you will be taking photos with a smartphone for a 4-week period, and then sharing your photos with me on an encrypted USB drive and speaking with me about them at an interview.

The project is meant to be an open-ended exploration of individual experience at work, and you can choose to take as many or as few photographs as you choose over the course of the 4 weeks.

The photographs are being used only for the purposes of knowledge elicitation – that is, they will serve as memory prompts during our interview. In order to conduct the research respectfully, we must aim to protect colleagues' privacy as much as possible. I would therefore advise you to follow the below guidelines when taking photos:

1. Avoid including colleagues or other individuals in the open space office in your photos. This can be challenging in a collective workspace, but it is achievable. A useful technique might be to rearrange a photographic shot to exclude others' faces and bodies, or to zoom in closer to relevant objects so that the object or scene might be captured but other individuals are not.
2. In order to respect the privacy of others' work, avoid taking photos of the screens of colleagues' or other individuals in the open office space's devices (laptops, mobile phones, tablets, etc)
3. Avoid taking photos of the personal belongings or private objects of colleagues and other individuals in the open space office if these items might personally identify the particular individual. This would include, for example, photos of family members. Some people might be uncomfortable with this information being collected.

It is a priority of the study that every effort is made to ensure that not only the privacy of participants, but also that of individuals in the vicinity, is protected.

If you have any questions at any time during your participation in the study, please do not hesitate to reach out to me at my contact details below.

Again, I thank you sincerely for your participation in the project.

[Contact information redacted]

## Appendix F: Consent Form for Photo Elicitation Participants

[Contact information redacted]

### Research Statement

Project title: *"How Does Working Alone Together Feel?" Aesthetic Ways of Knowing and Creating Knowledge*

Purpose and objectives

The objective of this research is to examine aesthetic, sensory ways of knowing and learning in the workplace – in particular, in an open-concept office environment – by exploring individual independent work practices in the space.
This study receives no financial support. It is being undertaken in fulfillment of the requirements of a master's degree within the School of Information Studies at the University of Ottawa [Contact information redacted].

To realize this study, participants will be asked to take photos with a smartphone during their daily work activities for a four-week period. Participants will be asked to share their photographs with the researcher at the end of the four-week data collection period. The researcher will conduct individual interviews with participants that will last up to 1.5 hours in English only. The researcher will ask questions about participants' experiences working and learning in an open concept workspace as they relate to the photographs taken by individual participants. Each participant will only see and comment on his or her own photographs. The researcher will audio record the interview and transcribe these recordings. You can request to view the transcription of the interview should you wish. The researcher will conduct interviews with five participants. All interviews will be conducted in English.

Confidentiality

The names of all respondents will be kept completely confidential and they will not be identified in any publication. Email addresses will only be collected for the purpose of communicating with participants throughout the duration of the study. Interview notes and records will be kept in protected facilities at the School of Information Studies for five years, after which they will be destroyed by the researcher. Digital records will be password-protected. Only the researcher and her research supervisor will have access to these notes and records.

The protection of the anonymity of participants and confidentiality of the information they share is of the utmost importance to this study. Because the research is being conducted in the workplace it may still be possible to associate some comments to some participants. Mitigating measures will be put in place - any quotations that might lend themselves to personal identification of the speaker will be either paraphrased or

excluded from the written thesis, and participants will be interviewed outside of their working hours.

Questions

Your participation is entirely voluntary. You are free to ask questions at any time during the interview. You are particularly welcome to ask questions before signing this form. You are free to end your participation at any time during the study. You are free to end the interview at any time and to choose not to answer any question without having to justify your decision. If you wish to withdraw, simply tell the researcher and all corresponding interview notes and records will be securely destroyed. You will be advised if there is any new information or if there are changes to procedures that might affect your decision to participate. Participation does not affect (favorably or unfavorably) performance evaluations, career advancement, or other employment-related decisions made by peers or supervisors.

Benefits

Your participation will contribute to the expansion of knowledge of how the workspace contributes to one's experience of work, and of aesthetic modes of knowing in the workplace.

Ethics Concerns or Questions

You may contact the Office of Research Ethics and Integrity at the University of Ottawa at any time with any concerns regarding the ethical conduct of the research. The Office can be reached at:

Office of Research Ethics and Integrity
[Contact information redacted]

Respondent's statement (please check if you agree)

___ The study described above has been explained to me.
___ I agree to participate in the study.
___ I can voluntarily withdraw from the study at any time.
___I have had the opportunity to ask questions.
___ I have received a copy of the consent form.
___ I agree to have the interview audio recorded.
___ I am 18 years or older.
___ I would like to receive a summary of the research results when they become available and here is how you can reach me with this summary:

Email address:
_____
_____

## Appendix G: Consent form for Leadership participants

[Contact information redacted]

### Research Statement

Project title: *"How Does Working Alone Together Feel?" Aesthetic Ways of Knowing and Creating Knowledge*

Purpose and objectives

The objective of this research is to examine aesthetic, sensory ways of knowing and learning in the workplace – in particular, in an open-concept office environment – by exploring individual independent work practices in the space.
This study receives no financial support. It is being undertaken in fulfillment of the requirements of a master's degree within the School of Information Studies at the University of Ottawa [Contact information redacted].

To complete this study, the researcher will conduct interviews that will last up to 30 minutes in English only. The researcher will ask questions about the organization's move to a collaborative workspace, and interviewees' individual first impressions regarding the impact of the change on the organization. The researcher will audio record the interview and transcribe these recordings. You can request to view the transcription of the interview should you wish. The researcher will provide hard copy, printed transcripts to you. The researcher will conduct interviews with five participants. All interviews will be conducted in English.

Confidentiality

The names of all respondents and any personally identifiable information will be kept completely confidential and respondents will not be identified in any publication. Email addresses will only be collected for the purpose of communicating with participants throughout the duration of the study. Interview notes and records will be kept in protected facilities at the School of Information Studies for five years, after which they will be destroyed by the researcher. Digital records will be password-protected. Only the researcher and her research supervisor will have access to these notes and records.

The protection of the anonymity of participants and confidentiality of the information they share is of the utmost importance to this study. Because the research is being conducted in the workplace it may still be possible to associate some comments to some participants. Mitigating measures will be put in place - any quotations that might lend themselves to personal identification of the speaker will be either paraphrased or excluded from the written thesis, and participants will be interviewed outside of their working hours.

Questions

Your participation is entirely voluntary. You are free to ask questions at any time during the interview. You are particularly welcome to ask questions before signing this form. You are free to end the interview at any time and to choose not to answer any question without having to justify your decision. If you wish to withdraw, simply tell the researcher and all corresponding interview notes and records will be securely destroyed. You will be advised if there is any new information or if there are changes to procedures that might affect your decision to participate.
Participation does not affect (favorably or unfavorably) performance evaluations, career advancement, or other employment-related decisions made by peers or supervisors.

Benefits

Your participation will contribute to the expansion of knowledge of how the workspace contributes to one's experience of work, and of aesthetic modes of knowing in the workplace.

Ethics Concerns or Questions

You may contact the Office of Research Ethics and Integrity at the University of Ottawa at any time with any concerns regarding the ethical conduct of the research. The Office can be reached at:

Office of Research Ethics and Integrity
[Contact information redacted]

Respondent's statement (please check if you agree)

___ The study described above has been explained to me.
___ I agree to participate in the study.
___ I can voluntarily withdraw from the study at any time.
___I have had the opportunity to ask questions.
___ I have received a copy of the consent form.
___ I agree to have the interview audio recorded.
___ I am 18 years or older.
___ I would like to receive a summary of the research results when they become available and here is how you can reach me with this summary:

Email address:
_____
_____

**Appendix H: Recruitment email for study participants**

Subject:

Help with Master's thesis: Studying knowledge creation in a collaborative workspace

Hello [program] employees,

As you might already know, I am currently working on a Master's thesis in Information Studies at the University of Ottawa. I am writing because I am looking for volunteers to help in my research.

My thesis is called *"How Does Working Alone Together Feel?" Aesthetic Ways of Knowing and Creating Knowledge*. The project looks at people's aesthetic, or sensory, experience of working in an open concept office.

I am looking for participants who would be willing to take photos with a smartphone for a 4-week period, and then share their photos and speak with me about them. The project is meant to be an open-ended exploration of individual experience at work, and participants can choose to take as many or as few photographs as they choose over the course of the 4 weeks. Participation is meant to be enjoyable for respondents – an opportunity to explore their experiences working in the open workspace.

Informal interviews would last up to 1.5 hours and will be held in English at a convenient location close by. I am looking for five volunteers who will be selected on a first come, first serve basis. These interviews will take place outside of working hours – therefore participation will require time outside of work as well as at work.

I am also looking to speak with leadership team members who would be willing to individually discuss the organization's decision to move to the open concept workspace model: what were the objectives behind this decision, what was the leadership team hoping to achieve with this change, and what are your impressions (so far) about how it is going? These interviews would last up to 30 minutes and will be held in English at the [organizational] location, or at another convenient location close by. I am looking for two volunteers, who will be selected on a first come, first serve basis.

If you think you would be interested in participating, or would simply like to speak with me about the project, you can contact me directly using your personal email address at my coordinates below.

Thanks so much for your kind consideration.

[Contact information redacted]

## Appendix I: Confidentiality Agreement

All data collected for the study "*How Does Working Alone Together Feel?" Aesthetic Ways of Knowing and Creating Knowledge* is protected under the confidentiality sections of the Research Ethics Board approval process. This means there are physical, administrative, and technical safeguards protecting all the data for this project from unauthorized access, use, disclosure, modification, loss or theft.

You are being given hard-copy, printed access to transcripts of your interviews for this project with the understanding that after you review them, you will return them to the researcher or destroy them. Your signature confirms that you have read and understand your obligations to respect the confidentiality of the transcripts.

Signature:

Date:

If you have any questions or would like to discuss this form further, please feel free to contact:

[Contact information redacted]