The experience and material of light –metaphysical thoughts and intimate encounters

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Bio

F. Derek Ventling has originally trained in Switzerland as a scientist and a graphic designer, Derek has experience in diverse realms of design: education, business and research. He recently completed his doctoral thesis at AUT University's School of Art & Design, contemplating the spiritual aspect of creative endeavour.

Abstract

This paper discusses the author's practice-led research, and the process of negotiating an evolving experiential pathway through sensate engagement. Drawing medieval theory into contemporary artistic practice, he considered his relationship with metaphorical light and its potential influence on creative consciousness and endeavour. Embodied within experimentally assembled material arrangements, moments of emotive resonance were sought. These were documented photographically to create a personal mode of visual expression. As the research advanced, the photographic artefacts were developed into animated sequences projected within designed installations. A final immersive installation invited viewers to contemplate perception and consciousness, and consider their own embodied relationship with light.

The research design of the project employed a heuristic framework. This provided valuable support through several existential aspects: It developed the practitioner's self-awareness, connecting perception and tacit understanding. It facilitated the discovery of new meaning from and through artistic experiences. Finally, it fostered exchange, building interpersonal learning. As this case study demonstrates, heuristics can be recognised as a flexible empirical framework for experiential artistic enquiries into certain phenomena, offering the practice-led researcher a catalytic means to generate fresh perspectives and new thinking.

KEYWORDS: practice-led research, experience, metaphysical light, embodiment, photography, installation, heuristic framework, consciousness.

Introduction

Within the heterogenous realm of artistic research, practice-led research can be described as a dynamic relationship where research and art practices work and develop in partnership, and where making and perception precede thinking or theory (Mäkelä, Nimkulrat, Dash & Nsenga, 2011). This is a cyclical creative and rationalising process, "at the heart of which lies the undeniable curiosity of the artist or designer" (Mäkelä & O'Riley, 2012, p. 8). Many scholars (for example: Griffiths, 2010; Klein, 2010; Jacob, 2013; Nimkulrat, 2012; Seago & Dunne, 1999) have discussed the pivotal role of the researcher/practitioner, interacting with artistic materials and processes, and probing personal responses to these interactions.

This type of research demands a considerable personal engagement – one where existential boundaries are re-negotiated, where emotive and exhaustive self-search prevails, and where the extremes of perception are challenged (Pallasmaa, 2009; Douglass & Moustakas, 1985). Therefore, a subjective stance is not simply acknowledged – it is cultivated, as the artist explores and articulates a personal awareness and a deeper understanding of the self. This "interiority of experience" (Sela-Smith, 2002, p.54) is a significant area worth investigating, because our feeling responses to external occurrences contribute to new ways of seeing the world, and to our creation of meaning.

My thesis "Illuminativa" (for the written exegesis, see: Ventling, 2017) exemplifies such an investigation. The practice-led research represents a "search for the discovery of meaning and essence in significant human experience" (Douglass & Moustakas, 1985, p. 40). My personal journey of experiential discovery combined my situated artistic knowledge, philosophy, and sensate, embodied impressions. Throughout this journey, I questioned and reflected on my subjective assumptions of spirituality, and my perception of consciousness and existential connectedness. In practice, I used artistic methods to try and establish an authentic visual language that would capture and communicate my thoughts.

Metaphysical thoughts, practical implications

Reading works by the medieval scholar Bonaventure (1221–1274), I was intrigued by his description of a progressive path of human cognitive development along the familiar nexus of making, sensing and thinking towards wisdom (Hayes, 1996; Miccoli, 2001; Schumacher, 2009). I recognized remarkable parallels between Bonaventure's concept of experientially generating insights and the modes of contemporary artistic research. Almost 800 years ago, Bonaventure put making and sensing before thinking and theory, much as the practice-led research process is described today (Mäkelä, Nimkulrat, Dash & Nsenga, 2011). Artistic scholars concede that by working experimentally, making and sensing without pre-conceived concepts, we allow opportunities for higher levels of discovery (Mäkelä and Löytönen, 2015, Marzotto, 2009). Exploratory and experiential practice thus becomes the dialogical basis for questioning and learning, opening up novel possibilities, and enriching a creative artist with new knowledge and ultimately an insightful understanding or expression or skill (see also: Arnold, 2012; Crawford, 2009; Ings, 2013; Rosenberg, 2008; Sennett, 2008). Regardless of the complexity and individuality of this process, these scholars acknowledge the same distinct realms as Bonaventure, in the same order. Wisdom invariably depends on a dynamic process through *making*, *sensing* and *thinking*.

However, there is one notable difference. Bonaventure argues that this learning process is illuminated by metaphysical light – a connective agent that provides stimulus and purpose to our cognitive potential (McAdams, 1991; Noone & Houser, 2014). It was St Augustine (354-430 AD), who proposed that humans undergo a transformative journey of fulfillment towards Divine wisdom and clarity. This journey would be assisted and inspired by archetypal light, a spiritual force guiding humans and enabling them to transcend the conventional with new ideas and insights. According to Bonaventure, this journey of cognitive development begins with our practice: As we make and improve our practical understanding of the material world, we are illuminated through a sensory embodied experience. This sensate apprehension is accompanied by feelings, instinctive and prior to reasoning. As the instinctive pleasure gives way to intellectual reflection, we are illuminated with new thinking, precipitating fresh ideas and understanding (Noone & Houser, 2014, Schumacher, 2009). Through metaphysical light, therefore, we are able to reach out to the not-yet-known, the indistinct potentiality, the latent and the unrealised. Within human endeavour, light might be the key, the catalyst that we require to bridge the real and the imaginary, the material and the immaterial, the seen and the

unseen.

On a practical level, Bonaventure believes light is much more than an abstract philosophical concept. He suggests that it works from the metaphorical/ spiritual to the literal/corporeal, and defines three aggregates: Light begins as *lux*, informing beings and radiating from them as *lumen*. And when it is viewed as it becomes perceptible, it is called *color* (Hayes, 1996; Miccoli, 2001). Following this idea, visible light can thus be understood as the perceptible evidence and continuation of this unseen permeating force.

This consideration ultimately became the genesis of my investigation. I wanted to explore the idea of being in a continuous state of *lumen*, infused and surrounded by this light, an active presence and energy that I normally did not acknowledge. I wanted to examine my personal relationship with light, and how this might be perceived from my viewpoint of creative practitioner. My research enquiry took the form of a creative-production project, where the artistic practice is the research activity, and is realised through and in artefacts (Scrivener, 2000, p. 15). Making and sensing was the place from which I wanted to work towards Bonaventure's ideas on light. I was hoping to make meaning by bringing his philosophical words into a physical contemporary context, and probing their phenomenological resonance through material experiences. I wanted to take a primal, visceral approach, seeking emotive responses to this engagement. I needed to *feel* my way into the irrational notion of metaphysical light in order to gain insights.

Immersive material experiments

Beginning the exploration of my relationship with light, I manually created large immersive environments with an array of materials (such as silver leaf, sheet metal, glass, fabric, sequins, water, wax, paint, cardboard, etc). These mediators harboured capacities and vitalities of their own (see Bennett, 2010; Mäkelä & Löytönen, 2015), and I let them teach me how their relationship with light influenced their reflection, radiance, opacity and luminosity. Sometimes I would erect walls to drape, hang or fasten materials, sometimes I would work with large horizontal trays of liquids, placing mirrors or various light sources around these. Over a number of experiments I kept changing, re-orchestrating and combining materials, adding projections of earlier photographs and calligraphy. I strove to generate situations where I could be embodied in these assembled environments, dwelling in light's catalytic capacity, and discover meanings by "focusing on the feeling dimension of personal experience" (Sela-Smith, 2002, p. 63). Over time, I was able to develop my sensibility for the expressive qualities of these materials and assemblages (see Figure 1), and consider what they might contribute to the theme of the research and the new visual language I was trying to develop.



Figure 1. Images produced during the early stages of the enquiry, testing a number of materials for their expressive qualities (form left to right: water, silver leaf and sequins).

Through the combination of material forces, my own physical immersion, and the perceived energy of light, a transient sensate relationship developed. As I explored and observed while moving within my assemblages, atmospheric changes from these conjunctions affected the way I experienced my self and my being. I found that, even with small movements or by simply breathing, the perceived aspects and details of my appearance kept shifting, becoming more indistinct or more prominent. Over time, I came to think of light as a unique material with an omnipresent suffusive quality, continuously influencing me and subsequently altering my sense of space, my consciousness, and even my corporeity.



Figure 2. "Momentaufnahmen" self-portraits. In the immersive experiments, I sought a resonance between atmosphere, feeling and metaphysical questions. It was important to stay in a place of 'now', driven by impulse, sensing and capturing atmospheric possibilities

within the instability of the moment. These photographs were produced in a variety of ways within the material arrangements: sometimes the camera was fixed to a tripod while I moved in front of it, but more often I held the camera in my hand and aimed it through a mirror, at a silver leaf surface or at myself.

Throughout the embodied sessions I tried to capture intimate moments of resonance with the camera, attempting to find a form of expression beyond literal substance and shape. Photography was valuable agency, because it allowed me to quickly document transient situations, and because it provided visual artefacts that illustrated my approach. As the experiments evolved, I developed a large volume of what I called *Momentaufnahmen*: photographic images of distinct spatio-temporal moments. Each of these images represents an ephemeral constellation, a distinct existential encounter – that brief glimpse of understanding where my momentary rapport with light made intuitive sense. They are self-portraits, not in a literal sense, but depict a mingling of mood and form. The photographs serve as gestural memories, evocative of experiential process, drawn within the continual unfolding in *lumen* (see Figure 2).

As the research trajectory unfolded, these photographic artefacts helped shape the further direction, and became catalysts in subsequent phases of presentation. This progression was originally not intended, but became a source of expressive potential, and the basis of further reflexive development.

Experiential Installations

In order to communicate my research findings and create opportunities for feedback, I decided to design installations at distinct intervals along the research trajectory. I was not content with only organising paper presentations, and I did not want to produce curated exhibitions of printed photographic imagery because these would be too static. I felt it was important to find a way to show the fluid, ephemeral qualities of light as an ongoing interactive experience. From this realisation the idea was born to assemble my photographs into an animated sequence. Projecting these within a designed space would give viewers a similar sense of deliquescent, ever-changing transformation that I had experienced.

I knew I was trying to "make visible" (Klee, quoted in Read, 1974, p. 182) an invisible, metaphysical concept, so the emotive aspect of apprehension, the sensing itself, was of particular relevance. I therefore developed my installations into atmospheric spaces where the viewers could dwell in the projected animated imagery. This would allow viewers to immersively examine their relationship of light through their own embodied experience. Feedback could then be based around experiential feelings, in an exchange of observations and interpretations.

Three installations were conceived over the course of four years. Written and verbal peer critique from the first and second installations was taken back into the exploratory enquiry along with feedback from paper presentations and discussions. This data helped focus the material experiments as well as the installation design. A number of aspects were reconsidered and refined, for example: medieval calligraphic projections were removed because the viewers perceived them as too didactic. The animated sequence was repeatedly re-worked with fresh photographic imagery and modified editing to improve the pace. The accompanying music was reviewed, and changed from a soundtrack to a more subtle contemporary acoustic experience. Finally, the overall dimensions of the installation were a closer, more immediate experience. As the thesis, the articulation, and the imagery developed, so did the conceptual planning towards the third and culminative installation.



Figure 3. The first installation presented a selection of early photographic imagery projected onto three large cloth screens within a room. Aspects of the encounter were carefully considered, with the room darkened and a selected atmospheric piece of music playing. The viewers were encouraged to circulate and interact with the projections. I felt however, that this arrangement was not adequately immersive, and each viewer's interaction with the imagery was disturbed by the presence of other viewers.



Figure 4. Second installation -a singular experience. This iteration was conceived as an embodied experience, with an aim to physically immerse a singular viewer. I constructed an atmospheric space that was clad entirely in subtly reflective silver leaf. Because my imagery was suggestive rather than literal, it opened an interpretive space for viewers to add or create meaning, rather than interrogate mine.

The final installation was created as an architecturally designed space, which was positioned within a large blacked out theatre. The entering viewer was thus obliged to leave the everyday world, cross the threshold of darkness and become sensitised to a new perceptiveness while approaching the installation. The reflective silver leaf interior dissolved the physical dimensions and heightened the tactile and visual engagement. My images were projected onto the entire front wall (made from cotton cloth) from the outside, permeating into the space and enveloping the viewer by reflecting on walls, floor and ceiling. As one photograph faded into the next throughout the animated sequence, light ebbed and pooled, shifting shapes and boundaries, and giving the space a sense of breathing.

My self-portrait photographs, in their poetic and mystically vague expression, took on a different role again. These images, having come into existence as my own artefacts, imbued with my subjective memories and meaning, were being re- experienced by the viewers, and interpreted through their own existential questions of memory, time, identity and self-image. The emotive capability of the images had been transferred from my making to the viewers' perceiving. This re- contextualisation gave the imagery a more direct relevance to viewers, arguably stimulating their own resonant memories and feelings, particular to their own life story or repertoire. I concluded that the imagery drew out the viewer's own self and called for its presence within the space, thereby crystallising new thoughts and insights. The meditative atmosphere allowed viewers to dwell in the space, contemplate their own phenomenological relationship to light, and consider its mysterious influence on their existence.



Figure 5. Third and final installation. As the viewer moved within the space, the reflective extensions seemed to respond by shifting their position and size. This created a sense of being centred in the light, and actively negotiating a relationship with it. When observed, the reflective qualities of silver leaf gave an impression of an expansion into a further, intangible dimension - a visible manifestation of light's fervent permeability and ability to develop consciousness for things beyond. As Cerbone (2006) asserts, "human existence is always a combination of facticity and transcendence" (p. 98); blending the perceived reality with imaginative, mystical realms beyond. (A short video of this installation can be viewed here: https://youtu.be/-100x7y6ufo).

Research framework and design

As a process, practice-led artistic research is reciprocal – it influences, and is equally influenced by, the artist's self (Griffiths, 2010). The researcher is led into unknown territories both outside and within, reflexively reshaping assumptions, and also the course of exploration. Documenting and interpreting such a shifting and unpredictable engagement necessitates a research framework that is relevant to a personal involvement, and above all dynamic. The framework must be able to assist and support the researcher by acknowledging the individualistic effort – the intuitive decisions, the multiplicity of forays, and the impassioned, cyclic self- dialogue. It must allow a combination of methods to advance the particular investigative interest. Finally, it needs to bring a scholarly basis to the process, ensuring rigor and validity beyond the personal.

Heuristics (from the Greek *heuriskein*: to discover) represents just such a framework. Revolving around "the self of the researcher" (Hiles, 2001, para 4), heuristics depends on a deep personal involvement to cast light on a specific theme or question – one that is significantly "infused in the researcher's being" (Moustakas, 1990, p.43). Therefore, its focus is on the human person in experience, or, more accurately, on the self in relation and in context to a dynamic whole (Douglass & Moustakas, 1985; Moustakas, 1990). Through a combination of methods a heuristic researcher challenges himself or herself with the intent to uncover or correct a deeper understanding, a new way of seeing the world, or a new form of knowing (Ings, 2011; Kleining & Witt, 2000).

Heuristics broadly represents a physical commitment to a personal investigative pursuit, through an ardent desire to learn and understand. Of particular significance to practice-led research is that it supports three capacities: *tacit exploration* – thus affirming intuition as a valid voice (Polanyi, 1966, 1969), *experience-based perception* – probing a dynamic personal involvement (Klein, 2010), and *reflective learning* – thereby iteratively seeking the meaning of experiences in relation to the self (Boyd & Fales, 1983).

My practice-led thesis was aligned to a heuristic framework because of a number of aspects. The research question was in essence a deep-seated existentialist matter. Through the research I was addressing my consciousness as part of my essence. This was not a problem requiring a conclusive answer, but was calling me to authentically negotiate my inner feelings towards experienced spirituality. In accordance, Hiles (2001) claims that "although heuristic

enquiry is not by necessity transpersonal, it has a central role to play in the research into transpersonal and spiritual issues" (para. 17).

Furthermore, my intention was to investigate the potential manifestation of light as a personal corporeal experience. I felt that working physically and embodied towards an aspect of spiritual awareness would give me a more tangible and sensate support. I knew that my perception of this feeling dimension would draw from my subjective self, my repertoire, history and values. My subjective being would always be centred within the making, and the artefactual outcomes would remain rooted within a personal interpretation.

In addition, I needed the approach to be flexible and process-driven, working through iterations of experiments without antecedent concepts. The practice of making and documenting material experiences was experimental and unpredictable. Favourably resonant outcomes drove the reflective thinking and generated new insights (Mäkelä & Routarinne, 2006). These subjective responses in turn stimulated and determined further experiments and directions, and helped solidify the research question.

Initially, the research question was aligned with reflecting on Bonaventure's theory; working through making and sensing towards a clarity of understanding about spiritual light and its connective potential. Over the course of the research however, the aspect of embodied experience intrigued me most. Thus, I became more concerned with examining our experiential relationship to light, and how this may define our perception and our creative consciousness. The heuristic framework allowed this flexibility and change of focus. As the research question crystallised, so did the idea of sharing my insights in the form of experiential installations, beyond presentations and discussions. Although personal, these designed experiences related my perception and my meanings to viewers in a non- verbal, tacit way – allowing them to also experience and interpret the issue, and provide valuable feedback from this resonance.

Importantly, under the heuristic framework, the researcher's choice of methods is not fixed. In artistic research, multiple methods are generally applied in conjunction because of the complexity of the processes and parameters, and because of the challenges of representing one's own experience. These methods are not universally adaptable, it is therefore up to the artistic researcher to assemble a combination of methods suitable and relevant to the enquiry, and integrate these sequentially into their heuristic framework.

In this research enquiry, I employed a range of systematic methods concurrently to the artistic methods (material experimentation and photography) used in the practice. The following systematic methods helped shape the enquiry: reflective questioning (journal entries and notes to the evolving photographic imagery), literature and artistic practice review (surveying contextual literature, visiting other artist's exhibitions and installations), discussions (with questioning supervisors, with external scholars, and with peers) and critique (feedback after conference presentations and installation viewings).

Importantly, these methods represented opportunities to actively turn outward and give my enquiry a supportive context. This exchange solidified the enquiry with academic rigor. I was able to test my thinking, my practice and my verbal articulation, gather valuable data, and I was able to decide at what point in the research trajectory to do this. Although at some early stages I was challenged with forming arguments, the methods stimulated decisive insights. They helped to strengthen my ideas, focus the research question, develop my reflexivity and reasoning, and refine my visual, spatial and literary vocabulary. As I learned through practice, I grew through reflection and exchange, and as a consequence of this dialectic the research advanced.

The heuristic framework, however, gave me a valuable perimeter. Because of the flexibility in approach, my research question itself was able to rise, shift and settle. As I learned experientially, read additional literature, heard other opinions, worked through articulating more precisely, I changed, too. As an artist, I found a new emotive articulation and expression beyond the realms I had previously occupied. The immersive questioning allowed me to refine spiritual considerations. Through the investigation I expanded my consciousness and sense of self, and encouraged viewers and readers to ponder their own perception of light.

Rather than dictate a pathway, the heuristic framework represented a constellation by which I could navigate. By defining its aspects and their interdependence, I was able to clarify research expectations, consider timing and modes of gathering feedback, and determine the depth and breadth of my practice-led enquiry.

Conclusion

In a broad sense, this undertaking has been a pilgrimage for me; a passage where practice, research, perception and consciousness have merged to a transformational experience. It is published here to serve as an example of how one might study phenomena in the context of artistic research.

The thesis did not set out find answers, but to reflect on personal questions. I did this by returning to a foundation where I could rediscover a sensitivity for phenomena through experimental material investigation, i.e. through making and embodied sensing. This practice was the driving force for the enquiry. This approach follows the philosophy of Bonaventure, who asks us to realise that the sensate experience is irrevocably embedded in our cognitive journey, and is the vestibule of knowledge.

By extending a visual exploration into a spiritual dimension I sought to challenge my limitations of perception and the definitions I place upon my world. Returning to a primordial, phenomenological approach allowed me to transcend potential rational and conceptual barriers, and reconnect with the irrational, magical and obscure. Supported by the heuristic framework, the enquiry was able to pursue its individual trajectory. As a consequence, it has changed the way I regard my self and my appreciation of creative practice, particularly within the perception of my reality.

Trying, as I have in this thesis, to observe the unseen, represents an admittedly paradoxical venture. Yet concepts such as the metaphysical and the transcendental make up the fabric of human existence, and I believe we must explore our own individual responses to them, even if these remain riddled with scepticism and prejudice. By immersing myself in, and reflecting on, deeper sensate and instinctual resonances, I sought to fathom an awareness beyond an immediate material reality, and beyond intellectual reason. I tried to apply an experimental artistic approach, because "ideas come after unexpected encounters with things that cannot be recognised in habitual ways" (Rajchman, 2000, p. 196).

A significant aspect of light is that it assists us in defining ourselves physically and spatially. The sum of our visual experiences sediments as knowledge, and becomes the foundation by which we function and interact. Discussing light, the artist James Turrell proclaims: "we live within this reality we create, and we are quite unaware of how we create the reality" (Govan, 2011, para 6). Light has a formidable but often unrecognised influence on how we interpret our world and situate ourselves within it. Furthermore, if we are to support Bonaventure's philosophy, light does not simply clarify beings, it establishes them. Perhaps we are who we are because of light's catalytic affect. Therefore, as creative artists, radiating in the force of illumination, I believe we should re-examine our relationship with light – principally through experience and sentience. Merleau- Ponty claims that some materials and their properties can only be understood in the context of our experience of them (Cerbone, 2002), and I regard light as one of these materials.

By sharing my insights, I invite colleagues to equally ponder the interminable presence of metaphysical light, and its influence as a catalytic force. Can spirituality and artistic practice be considered interrelated and mutually enriching rather than disconnected? Creative practitioners might develop new forms of thought from this, and view their endeavour and ethos of practice differently. They might also review how they perceive light in general, appreciating a connectivity beyond technological commodity, and beyond the visible. My hope is that this re-introduced metaphysical dimension might challenge self-imposed boundaries of perception, and generate new aspects of practical awareness or artistic consciousness.

References

- Bennett, J. (2010). Vibrant matter: A political ecology of things. USA: Duke University Press.
- Boyd, E., & Fales, A. (1983). Reflective learning: Key to learning from experience.

Journal of Humanistic Psychology, 23 (2), 99–117.

- Cerbone, D. (2006). Understanding phenomenology. Durham, England: Acumen Publishing.
- Douglass, B. G. & Moustakas, C. (1985). Heuristic inquiry The internal search to know.
- Journal of Humanistic Psychology, 25(3), 39–55.
- Griffiths, M. (2010). Research and the self. In M. Biggs & H. Karlsson (Eds.), *The Routledge Companion to Research in the Arts*. New York, NY: Routledge.
- Hayes, Z. (1996). On the reduction of the arts to theology. Works of Saint Bonaventure, 1.
- Coughlin, F. (Ed.) New York, NY: The Franciscan Institute of St. Bonaventure University.
- Hiles, D. (2001). Heuristic inquiry and transpersonal research. Paper presented to CPPE London. Retrieved July 23, 2016, from http://psy.dmu.ac.uk/drhiles/HIpaper.htm
- Ings, W. (2011). Managing heuristics as a method of inquiry in autobiographical graphic design theses. iJADE 30.2, Blackwell Publishing.
- Jacob, M. (2013). Experience as thinking. In M. Ambrozic and A. Vettese (Eds.) *Art as Thinking Process*. Germany: Sternberg Press.
- Klein, J. (2010). What is artistic research? Gegenworte 23. Berlin-Brandenburgische Akademie der Wissenschaften. Retrieved May 17, 2016, from https://www.researchcatalogue.net/view/15292/15293
- Kleining, G. & Witt, H. (2000). The qualitative heuristic approach: A methodology for discovery in psychology and the social sciences. Rediscovering the method of introspection as an example. *Forum Qualitative Sozialforschung* 1(1).
- Mäkelä, M., Nimkulrat, N., Dash, D. & Nsenga, F. (2011). On reflecting and making in artistic research practice. *Journal of Research Practice*, 7(1). Retrieved June 25, 2015, from http://jrp.icaap.org/index.php/jrp/issue/view/15
- Mäkelä, M. & Löytönen, T. (2015). Enhancing material experimentation in design education. *Learn xDesign*. DRS Cumulus, Design-Ed 2015, Chicago, IL.
- Mäkelä, M. & O'Riley, T. (2012). The art of research II. Process, results, contribution.
- Aalto University, School of Arts, Design and Architecture, Helsinki. Finland.
- Mäkelä, M. & Routarinne, S. (2006). The Art of Research. *Research practices in art and design*. University of Art and Design, Helsinki, Finland.
- Marzotto, C. (2009). The rule and the imprint. The role of the handmade within contemporary graphic design processes. IASDR 2009 Conference, 4115–4119.
- McAdams, S. (1991). The aesthetics of light: A critical examination of St. Bonaventure's doctrine of light in view of his aesthetics. Vatican City. ProQuest Dissertations and Theses. UMI No. 9134216.

- Miccoli, L. (2001). Two thirteenth-century theories of light: Robert Grosseteste and Saint Bonaventure. *Semiotica*, 136, 69–84
- Moustakas, C. (1990). Heuristics research: Design, methodology and applications.
- London, England: Sage.
- Nimkulrat, N. (2012). Hands-on intellect: Integrating craft practice into design research.
- International Journal of Design, 6(3), 1–13.
- Noone, T. & Houser, R. E. (2014). Saint Bonaventure. In E. Zalta (Ed.) *The Stanford Encyclopedia* of *Philosophy* (Winter 2014 Edition). Retrieved October 12, 2014, from http://plato.stanford.edu/archives/win2014/entries/bonaventure/>.
- Pallasmaa, J. (2009). *The thinking hand: existential and embodied wisdom in architecture*. Chichester, England: J. Wiley & Sons.
- Polanyi, M. (1966). The tacit dimension. New York, NY: Doubleday.
- Polanyi, M. (1969). *Knowing and being*. Chicago: University of Chicago Press. Rajchman, J. (2000). *The Deleuze connections*. Cambridge, MA: MIT Press.
- Read, H. (1974). A concise history of modern painting. London, England: Thames and Hudson.
- Schumacher, L. (2009). *Divine illumination in Augustinian and Franciscan thought*. PhD Dissertation, University of Edinburgh, Scotland.
- Scrivener, S. (2000). Reflection in and on action and practice in creative production doctoral projects in art and design. The foundations of practice based research. *Working Papers in Art and Design, 1.* England: Centre for Research into Practice, University of Hertfordshire.
- Seago, A. & Dunne A. (1999). New methodologies in art and design research: The object as discourse. *Design Issues*, 15(2), 11–17.
- Sela-Smith, S. (2002). Heuristic research: a review and critique of the Moustakas method.
- Journal of Humanistic Psychology, 42(3), 53–88. doi: 10.1177/0022167802423004 Ventling, F. D. (2017). Illuminativa the resonance of the unseen. Doctoral thesis. New
- Zealand: Auckland University of Technology, School of Art & Design. http://hdl.handle.net/10292/10414