MEANWHILE/BECOMING:
A POSTPHENOMENOLOGICAL POSITION EXPLORING
VISION AND VISUALITY IN LANDSCAPE PHOTOGRAPHY

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ABSTRACT

Meanwhile/Becoming is a practice-led research project that includes a written thesis and a final exhibition of work investigating methods of creating photographs that do not conform to the Cartesian perspective prevalent in photographs taken with a standard format camera. The research explores the opportunity of examining a visual space other than that offered by the standard single lens reflex camera through manipulation of the pinhole camera.

The photographic series that constitutes *Meanwhile/Becoming* uses processes that produce what the research describes as a reinterpretation of phenomenology, postphenomenology and posthumanism through photographic practice; where the photographs are expressive of the *what* and *how* humans see and the lived experience of the situated perspectives of a specific space. The research question reflects and critiques this position asking, if multiple viewpoints are presented within a single photograph, does the resulting photograph incorporate the human experience of, relation to and presence in, the world? Once expressed within this framework, the research questions if these multiple viewpoints more closely represent the physiology of *how* humans see.

The concept of the *meanwhile* is taken as the timespace between events, examining the "*meanwhile*" through the landscape of the domestic garden. "*Becoming*" refers to "the movement between events", an interval between events that allows the processes of creativity and change through differentiation and duration, identified by Gilles Deleuze and Félix Guattari (2004) and Henri Bergson (1911).

Together, my practice and thesis interrogate the restricted boundaries of the Cartesian model of constructed visual space through the apparatus of a unique purpose-built multiple pinhole camera. This apparatus mediates between me and the world, enabling me to develop a new method of making photographs that considers space/place and how we respond to it both physically and perceptually.

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This is dedicated to my father Peter, who I miss very much and who passed away at the beginning of the doctoral research

TABLE OF CONTENTS

Introduction

Meanwhile/Becoming, the title chosen for this project and supporting the practice-led research, is used as an analogy for thinking about change in perspective and change in practice as in the creation/making of a photographic image. I used this phrase after reading Yve Lomax's essay *Thinking Stillness* and through diary and note taking I developed this methodology to enrich my language and ways of expressing the notion of opening up a moment or space in time within which to position my photographic practice.[1] In setting up the narrative of "*meanwhile*" and "*becoming*", it is not the intention for them to be regarded or viewed as a binary or dualism, an either/or, but as a complex enfolding of the time/duration and topology of the landscape – not linear, but multiple – both words implying the temporal.

Meanwhile is part of 'becoming' and is defined in this thesis as "the timespace between events" where things are given the opportunity to be seen as some thing else, where objects are deconstructed, repeated and re-presented in a different visual space, examined through the landscape of the domestic garden. The term "event" in this research does not denote a function or gathering or incident, instead it is regarded in Deleuzian terms where the event 'has no present' and 'is always and at the same time something which has just happened and something about to happen; never something which is happening.'[2] It is not the time of Chronos 'composed only of interlocking presents' but the time of Aion which is 'constantly decomposed into elongated pasts and futures.'[3] *Meanwhile* infers the durational aspect of making; waiting for the right sort of day with the best light, high thin cloud and scant wind; waiting for the event, which manifests in photographs of infinite subdivisions and simultaneities of pasts and futures. Aesthetic strategies lie within this meanwhile as I wait for the conditions that are best suited to the technology I am using, when the next move is undetermined, rather than choosing the best weather situations or other criteria to produce an aesthetically pleasing photograph.

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[1] Yve Lomax, "Thinking Stillness," in *Stillness and Time: Photography and the Moving Image*, eds. David Green and Joanna Lowry (Brighton: Photoforum and Photoworks, 2006).

[2] Gilles Deleuze, *The Logic of Sense*, trans. Mark Lester with Charles Stivale, ed. Constantin V. Boundas (London and New York: Bloomsbury Academic, 2013), 73.

[3] Ibid.

Becoming refers to "the movement between events" and is *in* the "meanwhile", the timespace. It is a dimension of multiplicity, of simultaneity when things happen or change rather than a phase between events, and draws on the critical theories of Gilles Deleuze and Félix Guattari in *A Thousand Plateaus* (1980) and Henri Bergson's concepts of time and duration in *Creative Evolution* (1911). Following Bergson, and perhaps borrowing from Thomas Hobbes (1655) (who believed life was matter in motion), Deleuze and Guattari suggest 'a mode of becoming that is both material and creative, rather than mechanical and equilibrium maintaining.'[4] Applications of these theories to the photographic practice are explored through thinkers Yve Lomax, Elizabeth Grosz and Rosi Braidotti.

A photograph is often perceived as representational of whatever is positioned in front of the camera at the time of exposure. Although operated by human hand and directed by the decisions of the photographer, the photograph shows a fragment of the range of vision experienced by human beings. Range of vision refers to the physical extent of human vision including peripheral vision and does not refer to the different wavelengths of light that the receptors in the human eye are not responsive to. Light with short or long wavelengths like infra-red or ultra-violet are outside the range of human vision but can be picked up by cameras, which are more sensitive to light than the human eye.[5] My photographic art practice investigates this range of vision, not only through the human eye but also through what the camera can do in terms of manipulating the light.

Meanwhile/Becoming is a practice-led thesis that poses three core questions within the field of fine art photographic practice. First, it asks if there is a way of producing photographs without the Cartesian perspective prevalent in photographs taken with a standard format camera. The research explores the opportunity to create a visual space other than that offered by the standard single lens reflex camera (SLR), through manipulation of the pinhole camera. *Meanwhile/Becoming*

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[4] Thomas Hobbes, *De Corpore* (On the Body), 1655, pt.II, 8.10, (Oxford: Oxford University Press, 2008); Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham and London: Duke University Press, 2010), p.60.
[5] See "Cameras vs. The Human Eye," Cambridge in Colour, accessed August 10, 2017, http://www.cambridgeincolour.com/tutorials/cameras-vs-human-eye.htm.

uses processes that I describe as a postphenomenological position through mediation between technology and human beings; where technology (the multiple pinhole camera) shapes relations and transforms experience between human beings and the world. Second, the research question reflects and critiques this position asking, if multiple viewpoints are presented within a single photograph, does the resulting photograph incorporate the experience of, and presence in, the world?[6] Third, once expressed within this framework, the research questions if these multiple viewpoints more closely represent the physiology of *how* humans see, how can the photograph "capture" the mimicking of saccadic eye movements.[7]

Meanwhile/Becoming builds on earlier work undertaken with my landscape photography practice (*Untitled* 2011), which identified the significance of introducing different viewpoints into a single photographic image. This was achieved through layering techniques where different photographs were used to distort the linear perspectival view generated by a standard SLR camera. Bringing different focal planes together suggested hypothetical interstices between the planes that altered the viewer's perception of the space, appearing to bring the viewer closer to the picture plane and drawing them into the picture.[8] Through this earlier study, I have identified a gap in the knowledge, which this thesis aims to fill. *Untitled* 2011 utilized different layering techniques that distorted and manipulated the normative temporal and spatial planes of the landscape photograph. The research for *Meanwhile/Becoming* differs by incorporating movement and multiple viewpoints into single photographs. *Untitled* 2011 focused on a singular iteration of a photograph while the PhD work focuses on the movement and situation of these multiple points.

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[6] The term "image" is used as defined by Henri Bergson as 'a certain existence which is more than that which the idealist calls a *representation*, but less than that which the realist calls a *thing* – an existence placed [half-way] between the 'thing' and the 'representation' in *Matter and Memory*, trans. Nancy Margaret Paul and W. Scott Palmer (New York: Cosimo Classics, 2007), vii-viii. Where the word 'photograph' is used, it specifically refers to the physical manifestation of a photographic print. In this thesis, using the word 'photograph' challenges the notion that it refers to the representation of an object and can thus be interchangeable with the word 'image' in certain instances.

[7] Saccadic eye movements are small, fast, simultaneous, involuntary and jerking movements of both eyes in the same direction. They convey images of the visual world onto the fovea (the central part of the retina) by changing the point of fixation and assist in forming a three-dimensional map of the visual world.

[8] The term "viewer" is used to include any person who has the capacity to see or visualize the world around them or specific things within it. It encompasses the meanings of "observer" or "spectator" but does not include the meaning "non-participant".

The key research aim of *Meanwhile/Becoming* is to create photographs that resist and move away from the dominant structures and practices of the linear perspectival viewpoint of the SLR camera. The aim is to bring together the lived experience of multiple eye movements and viewpoints humans incorporate when looking at things, as well as the sense of being in a specific space. The repeated forms in the photographs from multiple viewpoints refer to the constant eye movements that send repeated messages of recognition of those forms to the brain, movements without which the foveal image would fade and die, each transfer of information being slightly different to the last one.

The research for *Meanwhile/Becoming* is situated by the fields of vision and through a critique of the cultural construction of perspective. The research is motivated by and questions the agency of the perspectival cultural conditioning of Cartesian principles (the effects of linear perspective, the situation of the subject). It engages the physiology of seeing and evaluates the results of the photographic experimentation carried out with a hand-made multiple viewpoint pinhole camera. When I refer to fields of vision I am referring to the history of vision that Martin Jay (1988) suggests is 'a contested terrain, rather than a harmoniously integrated complex of visual theories and practices,' dominated by 'Renaissance notions of perspective in the visual arts.'[9] The research traverses two disciplinary categories (photographic practice and photographic theory) and is critically situated by the historical context of twentieth and twenty-first century investigation by theory, philosophy and practice of the phenomenological expression as a vision of lived experience. This thesis will discuss the photographic theories of Jay and Jonathan Crary (1988) which are key in understanding the history of visual culture and the importance of the eye; Maurice Merleau-Ponty (2012) on the centrality of the body in phenomenological perception; the postphenomenological extension of perceptual and bodily lived experience through technological mediation; Giles Deleuze and Félix Guattari (2004) and their notions of the meanwhile, becoming, the event, repetition and difference; Henri Bergson (1911) on the body as a centre of action and Bergson and Doreen Massey (2014) on duration, movement and space.[10] The

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[9] Martin Jay, 'Scopic Regimes of Modernity,' in *Vision and Visuality: Discussions in Contemporary Culture*, ed. Hal Foster (Seattle: Bay Press, 1988), 4.

[10] Jonathan Crary, "Modernizing Vision," in *Vision and Visuality: Discussions in Contemporary Culture*, ed. Hal Foster (Seattle, Washington: Bay Press, 1988); Maurice Merleau-Ponty, *Phenomenology of Perception,* trans. Donald A. Landes (Abingdon, Oxon and New York: Routledge, 2012); Gilles Deleuze and Félix Guattari, *A Thousand Plateaus,* trans. Brian Massumi (London and New York: Continuum, 2004); Henri Bergson, *Matter*

theoretical field is divided into themes of linear perspective (including vision and visuality), temporality and space. Sub-divisions under photographic practice include the preceding field of art practice and the work of other practitioners (such as Jules Etienne Marey, Eadweard Muybridge, Jem Southam and David Hockney), the technology surrounding the pinhole camera and the use and science of light. A literature review is not included as a separate section but is embedded and woven into the fabric of the thesis and informs the practice.

Describing the implications of adopting the visual order of linear perspective, Jay believes the single viewpoint of the Cartesian gaze creates a distance between the spectator and the spectacle that causes a 'withdrawal of the painter's emotional entanglement with the objects depicted in geometricalized space.'[11] In Chapter 1, "Perspective", which supports the practice component of the thesis, I argue that the use of multiple viewpoints within a photograph will augment understanding of things *as they are perceived*; different to the notion of a singular representation that aims to capture the nature of things *as they are*. Using multiple viewpoints within a photograph differs from Jay's "geometricalized space" and has the effect of drawing the viewer into the space rather than creating distance from it; and the artist's body becoming part of the photographic apparatus.

How the human eye is physiologically capable of seeing, saccadic eye movements and the way in which vision is constructed is considered in relation to light, and the movement of diffracted light rays is discussed in relation to the practice of multi-image investigation.

I also explore the idea of the artist's body as intrinsic to the creation of the photographic image, a concept that is focal for a number of thinkers' reflections on the way that vision is constructed through and by a body. Bergson's thesis of "the image" posits the body at the centre of the image; Goethe's notion of the centrality of the body in vision highlights the capacity of the body to enhance visual experience; Merleau-Ponty's concept that the body, being in the world, perceives

and Memory, trans. Nancy Margaret Paul and W. Scott Palmer (London: George Allen and Unwin, 1911); Doreen Massey, *For Space* (London: Sage Publications Ltd, 2014).

[11] Martin Jay, "Scopic Regimes of Modernity," in *Vision and Visuality: Discussions in Contemporary Culture*, ed. Hal Foster (Seattle, Washington: Bay Press, 1988), 8.

the world through the body.[12] Crary writes, 'the body [...] in all its physiological density [is the basis] on which vision is possible.'[13] The phenomenological experiences explored in Husserl's work on *Lebenswelt* (notably *The Crisis of the European Sciences and Transcendental Phenomenology* (1970)), express the notion of vision that *Meanwhile/Becoming* is investigating where he considers the central role of the cultural and historical variations of everyday life and the lived body.[14] He says:

> In whatever way we may be conscious of the world as universal horizon, as coherent universe of existing objects, we, each "I-the-man" and all of us together, belong to the world as living with one another in the world; and the world is our world, valid for our consciousness as existing precisely through this "living together". We, as living in wakeful world-consciousness, are constantly active on the basis of our passive having of the world... Obviously this is true not only for me, the individual ego; rather we, in living together, have the world pre-given in this together, belong, the world as world for all...[15]

My body is the centre of my world and as I move in space the world is perceived through and by the proprioceptive and visual experiences enabled by these movements. These encounters with the world are available to all but they will be received and sensed in a different way to my own.

Following Husserl, I propose that the visual experience of the body does not rely solely on the sense of sight. Martin Heidegger's notion of *Dasein* frames the concept of "being there"; the idea of the discourse(s) between a person and the world they inhabit as common for 'existence in an ordinary world.'[16] Parallel to such philosophical investigations into the nature of reality as constructed by

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[12] See Henri Bergson, *Matter and Memory*, trans. Nancy Margaret Paul and W. Scott Palmer (New York: Cosimo Classics, 2007), 4, 12, 43; Johann W. von Goethe's *Theory of Colours*, (1810), trans. Charles Lock Eastlake (Cambridge, MA: MIT Press, 1982). Goethe was mainly concerned with retinal afterimage but helped define how vision was a combination of physiological processes and external stimulation; Maurice Merleau-Ponty, *Phenomenology of Perception*, trans. Donald A. Landes (Abingdon, Oxon: Routledge, 2012), 213.

[13] Jonathan Crary, "Modernizing Vision," in *Vision and Visuality: Discussions in Contemporary Culture*, ed. Hal Foster (Seattle, Washington: Bay Press, 1988), 34.

[14] *Lebenswelt* – lifeworld – the phenomenological concept of a world experienced by all. Edmund Husserl, *The Crisis of the European Sciences and Transcendental Phenomenology: An Introduction to Phenomenological Philosophy*, trans. David Carr (Evanston: Northwestern University Press, 1970), 139ff; Martin Jay, *Downcast Eyes: The Denigration of Vision in Twentieth-Century French Thought* (Berkeley, Los Angeles, London: University of California Press, 1994), 268.

[15] Edmund Husserl, *The Crisis of the European Sciences and Transcendental Phenomenology: An Introduction to Phenomenological Philosophy*, trans. David Carr (Evanston: Northwestern University Press, 1970), 108-109.

[16] Thomas A. Schwandt, *Qualitative Inquiry: A Dictionary of Terms* (Thousand Oaks, California: Sage, 1997), 37.

vernacular experiences, art forms of the twentieth century revise how to express experience. Paul Cézanne repeatedly painted Mont Sainte-Victoire over a twenty-three-year period. He desired 'to represent the object, to find it again behind the atmosphere' and retained Impressionist techniques 'to capture the organization of the object itself in our visual field.'[17] Merleau-Ponty's critical essay on Cézanne's practice, *Cézanne's Doubt* (1945), also contains an outline of the philosophical methodology that he developed in *Phenomenology of Perception* (1945), his manifesto on existential phenomenology. Here Merleau-Ponty stresses the importance of the body as being the main site for knowing the world. For Cézanne, this manifested in *being out in the landscape.* In a letter dated 28 January 1902 to his friend Charles Camoin he says: 'Indeed one says more and perhaps better things about painting when facing the motif than when discussing purely speculative theories …' and again, in September 1903, '… we must hasten out and by contact with nature revive in us the instincts and sensations of art that dwell within us.'[18] In his investigations into painting, Cézanne realized that 'perspective, that which we actually perceive, is not [...] geometric or photographic [...]', but is lived.[19] Cézanne endeavoured to compose his paintings to be seen without perspectival distortions, with the resulting works (*Mont Sainte-Victoire* 1904-06) giving the impression of 'an object in the act of appearing, organizing itself before our eyes', as they do in natural vision.[20]

The methodology that *Meanwhile/Becoming* uses is neither that of Cézanne nor is it Merleau-Ponty's exposition on Cézanne, but it is in dialogue with their desire to express the experience of a lived perspective. *Meanwhile/Becoming* does not take the existential position of the early twentieth-century modernists; rather it arises out of a set of material conditions of making photographs, engaging a phenomenological awareness in looking; one that enables expression of the situation of consciousness and awareness while acknowledging the affect of agential

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[17] Maurice Merleau-Ponty, "Cézanne's Doubt (Le doute de Cézanne)," in *The Merleau-Ponty Aesthetics Reader: Philosophy and Painting,* eds. Galen A. Johnson and Michael B. Smith (Evanston, Illinois: Northwestern University Press, 1993), 62; Theodore A. Toadvine Jr., "The Art of Doubting: Merleau-Ponty and Cézanne," *Philosophy Today*, Winter (1997): 546, accessed 15.11.14, url: www.academia.edu3838806/The_Art_of_Doubting_Merleau_Ponty_and_Cézanne
[18] Herschel B. Chipp, *Theories of Modern Art* (Berkeley, Los Angeles and London: University of California Press, 1968), 18.
[19] Maurice Merleau-Ponty, "Cézanne's Doubt (Le doute de Cézanne)," in *The Merleau-Ponty Aesthetics Reader: Philosophy and Painting,* eds. Galen A. Johnson and Michael B. Smith (Evanston, Illinois: Northwestern University Press, 1993), 64.
[20] Ibid., 64-65.

assemblages of entities and technological mediation. *Meanwhile/Becoming* expresses the self-reflexivity of looking.

Methodologies and Methods

Methodologies

I describe the methodological framework in terms of the dominant theoretical positions on phenomenology and postphenomenology and my own practice of multi-image investigation (through photographers such as David Hockney and Joyce Neimanas) within the context of the field of cultural posthumanism. I phrase my practice in the context of three core theoretical positions: Merleau-Ponty's phenomenology of perception in terms of the centrality of the physical body in perception and the mode of expression of that perception; Don Ihde's postphenomenology as an '"extension" of perceptual and bodily intentionality into the smaller and larger worlds [...] revealed through science and its instruments;' and cultural posthumanism at the beginning of the twenty-first century, which seeks to challenge the governing epistemological Western scientific framework drawn between humans, animals and technology and 'displaces man from his central position in the definition of the human,' making all things worthy of consideration.[21] These theoretical positions combined with my practice have produced my overall methodology and enabled me to express what my practice has been researching.

In *Eye and Mind*, Merleau-Ponty speaks of things being created through movement and through an action of a body. He argues that the artist lends 'his or her body to the world to bring forth a metamorphosis of the visible, an imaginative expression of the mute meanings and richness of the prereflective world.'[22] This is a phenomenological position that describes the world through a hapticity, a looking or a touching, where the eye looks at something as touching the objects in the world. My moving body is part of the visible world and vision is attached to

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[21] Don Ihde, *Postphenomenology: Essays in the Postmodern Context*, (Evanston, Illinois: Northwestern University Press, 1993), 3; Jay David Bolter, "Posthumanism," in *The International Encyclopedia of Communication Theory and Philosophy* (Hoboken, NJ: John Wiley and Sons Inc, 2016), 1-8.
[22] Galen A. Johnson, "Ontology and Painting: Eye and Mind," in *The Merleau-Ponty Aesthetics Reader: Philosophy and Painting*, eds. Galen A. Johnson and Michael B. Smith (Evanston, Illinois: Northwestern University Press, 1993), 45.

movement. He asks: 'What would vision be without eye movement?'[23] The Cartesian gaze augments stasis, detachment and control of the eye whereas hapticity engages and unites the body with the world we inhabit, where the sense of vision is also a form of touch. For Juhani Pallasmaa, 'Tactile sensibility replaces distancing visual imagery by enhanced materiality, nearness and intimacy. Vision places us in the present tense, whereas haptic experience evokes the experience of a temporal continuum.'[24] Scientific knowledge of the physics of light and the physiological saccadic movements of the eye, as sight, but also as perception, and the construction of the technological apparatus of a camera provide the tools necessary to develop my photographic practice.[25]

In my photographic practice, experience and perception of the world are attained through the mediation of the apparatus and so I also consider a postphenomenological position, which aims to overcome the limited subjectivism of phenomenology while reflecting historical changes occurring during the late twentieth/early twenty-first century. Together with the agency of the camera, the light, the silver nitrates, the film stock and all that goes into the creation of the photograph, consideration is also given to the subject matter of the photograph – the agency of the living but nonhuman element of the plants/trees within the studio garden. Individually these different elements are agencies in themselves yet they all play a part and work together to form something new. This introduces a posthumanist viewpoint where we are encouraged to 'live amidst large shifts in how we understand the world and our place within it.'[26]

Traditional Renaissance lines drawn between humans, nature, culture and technology are being breached by twenty-first century new materialist thinking of theorists like Jane Bennett (2010) who regards matter (things) as mutable and

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[23] Maurice Merleau-Ponty, "Ontology and Painting: Eye and Mind," in *The Merleau-Ponty Aesthetics Reader: Philosophy and Painting*, eds. Galen A. Johnson and Michael B. Smith (Evanston, Illinois: Northwestern University Press, 1993), 124.
[24] Juhani Pallasmaa, "Hapticity and Time – Notes on Fragile Architecture," in *1999 RIBA Discourse Lecture*, RIBA Architecture Gallery, London, 2.
[25] Barry Smith and David W. Smith, eds, *Cambridge Companion to Husserl* (Cambridge: Cambridge University Press, 1995), 168-238. In earlier works of Kant and Spinoza, Husserl believed their work related to the nature of perception and that direct experience of the world is behind a 'veil of perception.' Perception is meaningless until we build a conceptual framework to make sense of it with.
[26] Liz Wells, ed. *Photography: A Critical Introduction* (London and New York: Routledge, 2006), 336.

Bergson's 'latent belief in the spontaneity of nature."[27] By acknowledging the porous interface between humans and the world, (contrary to the Cartesian conception that bodies have clearly defined boundaries), new materialism, for Stacy Alaimo, releases that binary between humans and nature and 'opens up a mobile space that acknowledges the often unpredictable [...] actions of human bodies, nonhuman, creatures, ecological systems, chemical agents, and other actors.'[28] Matter is not just about "there-ness". There is vibrancy in things and nature, it is not just matter.[29] 'In posthumanist (and post-Cartesian) ideation, new materialism abstracts agency as present in all matter, which is always in a state of becoming.

Posthumanism is a term given to a number of current theoretical positions that reject traditional Western humanism and focus instead upon a 'way of understanding the human subject in relationship to the natural world,' removing it from Cartesian dualism and anthropocentricity.[30] Cultural posthumanism interrogates historical philosophies of human and human nature. It challenges ideas of human subjectivity and embodiment by observing and developing theories of change and positioning technology in relation to these changes.[31] Donna Haraway (1991) and Rosi Braidotti (2013) are key in blurring the boundaries between human, nonhuman and technology, gaps regarded by humanism as unbridgeable.[32]

Immy Holloway maintains 'that researchers [using] phenomenology are reluctant to prescribe techniques' or put labels to things.[33] The methodology that *Meanwhile/Becoming* describes and refers to is a postphenomenological position in that it acknowledges and critiques a situated subjectivity and uses a technique that is also situated in a posthumanist context that refuses a single point subjectivity and acknowledges multi-modal perception.[34] *Meanwhile/Becoming* takes this

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[27] Henri Bergson, *Creative Evolution*, trans. Arthur Mitchell (Mineola, New York: Dover Publications Inc, 1998), 45.
[28] Stacy Alaimo, "Porous Bodies and Trans-Corporeality*," Larval Subjects*, May 24, 2012, https://larvalsubjects.wordpress.com/2012/05/24/stacy-alaimo-porous-bodies-and-trans-corporeality/
[29] See Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham and London: Duke University Press, 2010).
[30] The Anthropocene is a term used by Paul Crutzen and Eugene Stoermer in 2000 to describe the significant impact of humanity on the environment in the present geological epoch.
[31] Andy Miah, "A Critical History of Posthumanism," in *Medical Enhancement and Posthumanity*, eds. Bert Gordijn and Ruth Chadwick (Dordrecht, Netherlands: Springer, 2008), 71-94.
[32] Donna Haraway, *Simians, Cyborgs and Women: The Reinvention of Nature* (New York: Routledge, 1991); Rosi Braidotti, *The Posthuman* (Cambridge: Polity Press, 2013).
[33] Immy Holloway, *Basic Concepts for Qualitative Research* (Oxford: Blackwell Science, 1997), 116.
[34] Postphenomenology is a method descriptor, a revised form of phenomenology that aims to overcome the limitations of subjectivism. 'Subjectivism is the doctrine that all knowledge is limited to experiences by the self,

interdisciplinary approach to produce what I refer to as a camera-based postphenomenology, where theories of phenomenology, postphenomenology and posthumanism are regarded in tandem. The research also draws on Merleau-Ponty's use of the word hapticity to try and capture the feeling of the eye and body being touched by something that it sees.

A core component of the research methodology is observation of the elements. Contingent upon these is whether or not the camera is set into position. This contingency contains an intentionality to the work resonant with Merleau-Ponty's phenomenology of perception; the phenomenological position. The postphenomenological position aims to remove the subject where it is the agent of making or describing the world around them; instead, it concentrates on how technologies form the relations and experiences human beings have with the world. My method-step of deciding when to set the camera in motion or not is weather and time dependent, but once that decision is made, the camera as a mechanical apparatus becomes impartial, and then the film, as the agent of the chemicals, the silver nitrates and the light, mediate between the subject and the world and enables photographs to be formed in a postphenomenological and posthuman way. My body acts as if it is part of the instrument of the camera being situated in a space that is a landscape of my choosing; for Flusser, 'photographers are inside their apparatus and bound up with it.'[35] I am part of the apparatus that is allowing the light and the matter of the landscape to come into being, to pass through the pinholes - and the duration of exposure enables the light to be seen and fixed by the photographic film; producing photographs. For Peter-Paul Verbeek: 'Things – and in our current culture especially technological artifacts – mediate how human beings are present in their world and how the world is present to them ...'[36] In this research, postphenomenology describes this process where the apparatus, the camera (inclusive of my body), the multiple planes of the camera, the multiple

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and that transcendent knowledge is impossible,' accessed November 26, 2014. url: http://dictionary.reference.com/browse/subjectivism Postphenomenology develops from the classical phenomenological traditions of philosophy aiming 'to integrate science and technology in its analysis of relations between human beings and their world.' Robert Rosenberger and Peter-Paul Verbeek, eds, "Introduction," in *Postphenomenological Investigations: Essays on Human-Technology Relations* (Lanham, Maryland: Lexington Books, 2015), 11.

[35] Vilém Flusser, *Towards a Philosophy of Photography* (London: Reaktion Books, 2012), 27.

[36] Peter-Paul Verbeek, *What Things Do: Philosophical Reflections on Technology, Agency and Design*, trans. Robert Crease (Pennsylvania: Pennsylvania State University Press, 2005), 235.

points of light and the duration of light enables a specifically situated perceptual model.[37]

The subject of my research in respect to posthuman theory is well-timed through its mediation *by* technology but also *with* the human intervention through technology. It searches outside the humanist overemphasis of subjectivism and considers the roles played by nonhuman agents to investigate and perceive the world through my photographic practice.[38]

Methods

I have employed various methods throughout the practice that contribute to the overall methodology.

a) Notebook

Details of all images made within the camera were catalogued in a notebook at the time of exposure and then collated with the developed and printed photographs for comparison. (See Appendix I) The photographic images were catalogued by number and a system of tears or cuts made along the edges; tears in photographic paper and cuts in film. In their book, *Qualitative Data Analysis,* Matthew Miles and Michael Huberman discuss "memoing" as an 'important data source in qualitative research. Memoing refers to the researcher's field notes; the recording of what the researcher hears, sees, experiences and thinks in the course of collecting and reflecting.'[39] It is an approach usually employed during an interview process and involves the collection of additional data that the researcher observes during the process. I use this method of memoing by collecting information during

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[37] By "situated", I refer to the mode of situated knowledge that Donna Haraway describes in Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective. *Feminist Studies,* Vol. 14, No. 3 (Autumn, 1988), pp. 575-599. url:
http://www.staff.amu.edu.pl/~ewa/Haraway,%20Situated%20Knowledges.pdf
[38] See Theodore Schatzki, "Introduction: Practice Theory," in *The Practice Turn in Contemporary Theory*, eds. Theodore R. Schatzki, Karin Knorr Cetina and Eike von Savigny (Abingdon and New York: Routledge, 2001), 10-11.
[39] Matthew B. Miles and A. Michael Huberman, *Qualitative Data Analysis: A Sourcebook of New Methods* (Newbury Park, California: Sage, 1984), 69; Thomas Groenewald, "Phenomenological Research Design Illustrated," *International Journal of Qualitative Methods* 3, no. 1. (2004), accessed 14.11.14, url:
http://www.ualberta.ca/~iiqm/backissues/3_1/pdf/groenewald.pdf

the image making process, collated into a notebook. In a methodical and logical way, I gather into the notebook quantitative empirical (practical) data in terms of the date and time of day, weather conditions, type of film or photographic paper, length of exposure and number of pinholes utilized for generating the images. The project notebook also contains a log of the empirical (observed) experience, detailing lived responses to the situation of being in the space. My selection process, making aesthetic decisions, provides the qualitative element, and the quantitative empirical research and the qualitative assessments I make incorporates both a strategic and an intuitive approach to the phenomenon observed, made and recorded as material, data, light and time. The notebook for *Meanwhile/Becoming* is an artefact that is a record of the content of the work and the materiality of the experience of being there during the image-creation.

b) <u>Location</u>

As a photographer, my method always involves repeatedly visiting the same location over a period of time, enabling an intimacy of that place to develop. This evolves where familiarity augments understanding and recognition, heightening relationship to that place. Fay Godwin articulates this well:

> I have a simple rule and that is to spend as much time in the location as possible. You can't expect to take a definitive image in half an hour, it takes days, often years. And in fact I don't believe there is such a thing as a definitive picture of something. The land is a living, breathing thing and light changes its character every second of every day.[40]

Photographer Jem Southam was one of the main motivators for me to work in this way. He personally engages with and interacts with the landscape invoking memory and personal experience. An ongoing project of his involves looking out of his kitchen window into the garden, observing and recording the changes that occur in this very personal space. He explains: 'My overall artistic intentions are to make work that explores how our history, our memory and our systems of knowledge combine to influence our responses to the places we inhabit, visit, create,

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[40] David Clark, "Fay Godwin 1931-2005 – Iconic Photographer," *Amateur Photographer* December (2010), accessed June 19, 2017, url: www.amateurphotographer.co.uk/technique/fay-godwin-1931-2005-iconic-photographer-18907

and dream of.'[41] This is evident in his series *The Pond at Upton Pine* (1996-2001), shown at the Tate Britain Exhibition *How We Are Photographing Britain*, 2007, and particularly in his series *The Painter's Pool* (2002-2007).[42]

His whole practice involves working on multiple series of landscape photographs (often simultaneously) repeatedly visiting the same locations, observing the cycles of decay and renewal that occur. As part of my phenomenological approach 'posed from an embodied and situated perspective', in an interview with Southam at his home in 2012, the questions I asked were 'directed to the participant's experiences, feelings, beliefs and convictions about the theme in question.'[43] I focused on the series titled *The Painter's Pool* [Figs. 1 and 2] where the aim was 'to understand the world from the subjects' point of view, to unfold meaning of peoples' experiences' as the intent was to comprehend and appreciate the phenomena from the individual's personal point of view rather than through the direction or experience of others.[44] In dialogue with Southam, he stressed the importance for him to have a connection and an attachment with a particular place and, with much thought and reference going into a body of work, he believes the essence of the photographer becomes distilled into that place.[45]

[41] Schuman, Aaron. "Landscape Stories: An Interview with Jem Southam, February 2005," Seesaw Magazine. Accessed January 12, 2011. http://seesawmagazine.com/southam_pages/southam_interview.html
[42] Jem Southam, *The Painter's Pool,* (Portland, Oregon: Nazraeli Press LLC, 2006).
[43] Robert Rosenberger and Peter-Paul Verbeek, eds, "Introduction," in *Postphenomenological Investigations: Essays on Human-Technology Relations* (Lanham, Maryland: Lexington Books, 2015), 1; Johannes Christiaan Welman, S.J. Kruger and Fanie Kruger, *Research Methodology for the Business and Administrative Sciences* (Johannesburg, South Africa: International Thompson, 1999), 196.
[44] Steinar Kvale, *Interviews: An Introduction to Qualitative Research Interviewing* (Thousand Oaks, California: Sage, 1996), 1-2.
[45] Interview with Jem Southam at his home on 18 December 2012.

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Fig.1: Jem Southam: *The Painter's Pool*, 3 February 2003

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Fig.2: Jem Southam: *The Painter's Pool*, 28 May, 2003

My approach is similar to Southam, in particular where the working method combines the predetermined with the intuitive (where the intuitive act is one of the catalysts for the practice), but discussions with him highlighted that his observations of the landscape were predominantly topographical and personal. His strategy is to visit a site regularly, gradually assembling a body of work through the slow absorption of the space by making photographs and through discussion with the people connected to it. Part of his methodology involves building a distinct body of work, one 'which has been directed by the process of exploring the site itself.'[46] This, in turn, informs the process. As a result, he cannot predict how the work will turn out.

Here our methods diverge. While Southam concentrates on various singular viewpoints of a particular place to inform the viewer, I am concerned with combining a number of different aspects of a particular place into a single photograph as well as incorporating the way we see, both scientifically and physiologically. My practice is about being situated within the garden landscape, with empirical observation being a strategy for engaging with that site. As a result, Southam's open, public sites are experienced in different ways to the domestic, enclosed and feminine space of the domestic garden.

Repeatedly visiting the same site is also a method adopted by David Hockney who returned many times to paint, film and photograph the hills of the Yorkshire Wolds. Like Southam, Hockney engages with the perennial theme in landscape painting of the changing faces of the four seasons. In *Meanwhile/Becoming,* I embrace the nuances of changing light and weather conditions due to seasonal differences. More pertinent to my own practice, Hockney posed the question of how one can 'translate a visual experience … a fleeting event involving expanses of space, volumes of air, water vapour and varying qualities of natural light – into a picture.'[47] His concern has been how the world has been represented in contrast to what the world actually looks like, and his antagonism towards the camera's geometric depiction of space is understandable.[48] Joyce

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[46] Schuman, Aaron. "Landscape Stories: An Interview with Jem Southam, February 2005," Seesaw Magazine. Accessed January 12, 2011. http://seesawmagazine.com/southam_pages/southam_interview.html

[47] Martin Gayford, *A Bigger Message: Conversations with David Hockney*. (London: Thames & Hudson Ltd, 2011), 8.

[48] Ibid., 10.

Neimanas uses a similar mode of practice to represent time shifts from various perspectives but taken over a period of time, resulting in a space that could never have existed. [Fig. 3]

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Fig. 3: Joyce Neimanas: *#2 (Lautrec)*, 1981

c) Landscape

Landscape is formed by the forces of nature and by human intervention but this research is not concerned with the study of landscape per se. Instead, it examines Merleau-Ponty's phenomenological accounts 'of embodied vision as an enlacement or intertwining of self and landscape' as discussed in his unfinished text, *The Visible and the Invisible* (1968), hence releasing 'the visual gaze from its detention as the accomplice of Cartesian spectatorial epistemology.'[49] The landscape is used as a tool, part of the method of working with the camera and the garden.

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[49] John Wylie, *Landscape* (Abingdon, Oxon: Routledge, 2007), 152, 139; See also Simon Schama, *Landscape and Memory* (London: Fontana Press, 1996), 10. The word 'landscape' was imported from the Dutch at the latter end of the sixteenth century and became part of the English language. Old English *landscipe*, German *landschaft* and Danish *landscab* link two roots. Land is both a place and the people that inhabit it. '*Skabe*' and '*schaffen*' mean 'to shape' and '*-skab*', '*-schaft*' and '*-ship*' mean association or partnership, so landscape is an essential part of human experience, activity and communication and cannot be detached from the cultural experiences we bring. In Old English, it implied both an association with a place and a physical shaping (directly with the hand or tool or through law, public policy, capital investment etc). In *Webster's Third New International Dictionary* (Springfield, MA: Merriam-Webster, 2008) 'landscape' denotes (1) those portions of land which the eye can comprehend in a single view and (2) representations of such land.

Stephen Daniels (1988) writes about 'the duplicity of landscape' with its coincident 'appeal as subjective experience and pleasure and its role as social expression of authority and ownership' and, though John Wylie (2007) points out that 'landscapes are human, cultural and creative domains as well as [...] natural or physical phenomena', Rosi Braidotti (2013) believes the delineation between cultural domain and natural phenomena has 'been displaced and [...] blurred by the effects of scientific and technological advances.'[50] Writing specifically about the domestic garden as landscape has not been widely undertaken, but the Land2 research network at Leeds University has been a useful resource in considering contemporary writing on landscape, in particular the writings of Iain Biggs and the artist network LAN2D.[51] Because of the limited research undertaken on the domestic garden as subject, it offers potential for reflecting on "I" as a perspective. As this exploration progressed, I saw the domestic and cultivated garden as landscape and chose to investigate this microcosm of the "natural" world, designed and developed by me over the years, as a space that lies somewhere between the domestic (interior) and the area that extends beyond the periphery of the garden walls.[52] The domestic garden, in this thesis, is taken as a private space delineated by walls, hedges or fences and attached to a house. It can be of any size and its identity is determined by the owner (albeit limited by climate, available materials and means) and by significant differences in complexity, morphology and management.

Although not the main focus of the research, I acknowledge that making photographs in *my* garden, not any garden, does influence the practice through the personal (subjective) connection. I do not consider the social, environmental and political theories relating to the landscape. These are discussed extensively by Simon Schama (1996), Liz Wells (2011), Rod Giblett and Juha Tolonen (2012), Rachael Zaidy DeLue, James Elkins and Anna Whiston Spirn (2010) among others.[53] Having a garden puts me in a privileged position but I will not be

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[50] See James Elkins et al in *Landscape Theory*, eds. Rachael Zaidy DeLue, James Elkins (New York and London: Routledge, 2010), 27; Stephen Daniels, "The Political Iconography of Woodland in Later Georgian England," in *The Iconography of Landscape*. eds. Denis Cosgrove and Stephen Daniels (Cambridge: Cambridge University Press, 1988), 43-82; John Wylie, *Landscape* (Abingdon, Oxon: Routledge, 2007), 8; Rosi Braidotti, *The Posthuman*, Cambridge: Polity Press, 2013), 3.
[51] "Land2 Texts," Land2, accessed August 7, 2017. http://land2.leeds.ac.uk/texts/ See Iain Biggs, *Between Carterhaugh and Tamshiel Rig: A Borderline Episode* and *Contested Terms: Rethinking "Landscape" and "Nature"* and David Hill, *Beyond Landscape?*
[52] 'Natural' here it taken to mean present in or produced by nature, of, relating to, or concerning nature.
[53] Simon Schama, *Landscape and Memory* (London: Fontana Press, 1996); Liz Wells, *Land Matters: Landscape Photography, Culture and Identity* (London and New York: I B Tauris & Co Ltd, 2011); Rod Giblett and Juha

addressing the garden from the aspect of public versus private space or national identity, or the political aspect of gendered space (though I acknowledge the Cartesian gaze is gendered and that I will be impinging on male territory). Instead, I address the garden as my studio space, its agency and my presence within it, therefore claiming the territory as mine.[54] I refer to Yi-Fu Tuan's belief that we take 'space and place [as] basic components of the lived world [...] for granted', and it is only when we reconsider them we find unexpected meanings and ask different questions.[55] He distinguishes between place and space as: 'What begins as undifferentiated space becomes place as we get to know it better and endow it with value.'[56] The Japanese word *ma* has many different meanings and is used in many contexts, but I refer to the definition as explained by Gunter Nitschke (1988) in *Kyoto Journal*. He says:

> Place is the produce of lived space and lived time [and] "sense of place" infuses the objective space with an additional subjective awareness of lived, existential, non-homogenous space. It also incorporates a recognition of the activities which take place in a particular space and different meanings a place might have for various individuals or cultures.[57]

For me there are no strict divisions, there are only subtle differences between place and space. In the context of my garden, the words can be interchangeable. Place is somewhere you have given time and attention to but space can also be familiar and meaningful, perhaps more abstract, nebulous and open to change.

The following explores the role played by my garden within the research and photographic practice and highlights the importance of agency in those elements that affect, combine and manifest in the photograph.

Tolonen, *Photography and Landscape* (Bristol and Chicago: Intellect, 2012); Rachael Zaidy DeLue and James Elkins, eds. *Landscape Theory* (New York and Abingdon, Oxon: Routledge, 2008).
[54] See Deborah Bright's essay *Of Mother Nature and Marlboro Men: An Inquiry into the Cultural Meanings of Landscape Photography* for a detailed discussion about the cultural, political and gendered space that is landscape published in Richard Bolton, ed, *The Contest of Meaning: Alternative Histories of Photography* (Cambridge: MIT Press, 1992), 125-143.
[55] Yi-Fu Tuan, *Space and Place: The Perspective of Experience* (Minneapolis: University of Minnesota Press, 1977), 3.
[56] Ibid., 6.
[57] Gunter Nitschke, "Ma: Space, Place, Void," *Kyoto Journal* 8 (1988):1, accessed August 26, 2017, url: http://www.kyotojournal.org/the-journal/culture-arts/ma-place-space-void/#_ftn5

d) <u>The Garden</u>

Meanwhile/Becoming requires the repeated return to a specific place and the connection and intimacy this brings to the work. The cultivated landscape in the form of the domestic garden was chosen.[58] Experimentation with the camera necessitated me using a darkroom in the house and, because of its proximity and the personal connection I have with it, the garden became my research landscape. My garden and the study of the notion of the domestic garden forms a further aspect of my study. I propose that my methodology can be utilized and taken to any space imbued with personal connection or acknowledgement. The relationship between humans and the mediation of things in the world are central to this perspective. Technological artifacts, as well as the material agency of nonhuman elements like plants, trees and walls, shape and affect the way humans interact with and interpret the world.

i) <u>As Landscape</u>

The garden can take on many forms, utilitarian as well as utopic. The work I make interrogates the uses of the garden, with the photographs establishing a desire, conscious or unconscious, to take us somewhere else, to an exotic world that is "other" to the world that exists beyond the garden wall. Foucault's concept of heterotopia describes spaces of otherness where space is a shifting, fluid, transitory element. He postulates several possible types of heterotopia to describe spaces that have more layers of meaning or relationships than are immediately apparent. Shifting planes within my photographs [Figs. 5, 6, 12, 47, 49, 54, 55, 56, 60 and 61] compress the depth of field and flatten the image, which has the effect of bringing individual elements to the fore. As linear perspective lessens or disappears, we can relate the impenetrable and dense atmosphere to a heterotopia, a non-place, a site with no real place (not to be confused with Marc Augé's idea of non-place as 'a space which cannot be defined as relational, or historical, or concerned with identity').[59] We might consider the garden as landscaped by Foucault's third principle where 'heterotopia has the power of

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[58] The word 'domestic' derives from the Sanskrit, *damah*, the Avestan *demana* and the Greek *domos*, all meaning house. Within this thesis a domestic garden is taken to be a garden attached to a house.
[59] Marc Augé, *Non-Places: Introduction to an Anthropology of Supermodernity*, trans. John Howe (London and New York: Verso, 1997), 77-78.

juxtaposing in a single real place different spaces and locations that are incompatible with each other. Perhaps the oldest example of these heterotopias in the form of contradictory locations is the garden.'[60] He speaks of a traditional Persian garden divided into four sections that represent the world with a central section containing all vegetation as symbolic of perfection.[61] For him the garden is a real space where plants from all over the world create a microcosm of different environments that present a small fragment of the world in its totality.

There is a basic need for all living creatures to dwell or inhabit a piece of our world. Humans, in many cases, have chosen to augment their shelters with gardens, a space adjacent to residencies where plants, rocks and water have been organised into extensions of us. The garden is an expression of humans' attempts to shape and control nature and can reveal the aspirations of the cultures that created them. A distinctive private place as opposed to a public space, the garden is as much created as a work of art, no more natural than a seventeenth century painting of an Arcadian landscape. Yet a garden is not easily defined and each culture has its own definition.

In the domestic garden, walls, hedges, fences, gates, guard dogs and security systems form barriers that delineate the boundaries of private land and create islands isolated and detached from the natural landscape, though still part of it. Walls can provide the structure and surface for things to grow and are an integral part of the garden. They are also the backdrops against which silhouettes and shadows of objects can be seen.

My garden is enclosed by walls on all sides. It is a place of retreat, separate from the world, a space between inside and outside and yet it is still "in the world". In Jerzy Kosinski's novella *Being There*, Chance, a simple-minded character, never goes beyond the house or garden walls or been 'curious about life on the other side of the wall.'[62] He moves from tending the garden to addictively watching television inside the house, 'both spaces removed

[60] Michel Foucault, "Of Other Spaces: Utopias and Heterotopias," in *Rethinking Architecture: A Reader in Cultural Theory*, ed. Neil Leach (London and New York: Routledge, 1967), 354.
[61] Ibid., 354.
[62] Jerzy Kosinski, *Being There* (London: Black Swan Books, 1995), 9.

from the real world while still remaining part of it' suggesting the garden is an "other" space not unlike the world portrayed on the television screen.[63] The idea of a discourse between a person and the world they inhabit is where I have chosen to interrogate the specific space of my garden, relying on my body and my phenomenological experience. The camera is mediator and enables me to interrogate the space and see the world through the process of multi-planar imagery.

ii)   <u>As Gendered Space</u>

It is acknowledged that communicating through and with a camera positioned in the garden will leave behind identity markers of culture, race and gender. The viewer is caught up in Martin Jay's "scopic regime" of Western visuality 'fashioned in Enlightenment philosophy and by Cartesian dualism and perspectivalism,' the centre of which is the centred humanist self.[64] This dominant system, in place for some 500 years, was always, according to Sarah Kember, unstable and gendered: gendered as the humanist ideal of Man at the centre of all things; unstable, for writer Liz Wells, through 'a system that depended upon a desire to exercise power and control over nature and others.'[65] Helen Sear's series *Beyond the View* [Fig. 4] counters this system and shows the gendered perspective of female subjects in the landscape, but access to them is denied through the use of multiple overlaid and altered layers. The power and control usually given to the viewer is shifted and instead afforded to the female subject.

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[63] Kerry Brougher and Michael Tarantino, "Being There," in *Enclosed and Enchanted* (Oxford: Museum of Modern Art, 2000), 9.

[64] Martin Jay, "Scopic Regimes of Modernity," in *Vision and Visuality: Discussions in Contemporary Culture*, ed. Hal Foster (Seattle, Washington: Bay Press, 1988), 3-20; Sarah Kember, *Virtual Anxiety: Photography, New Technologies and Subjectivity* (Manchester and New York, Manchester University Press, 1998), 23.

[65] Liz Wells, ed. *Photography: A Critical Introduction* (London and New York: Routledge, 2006), 330.

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Fig 4: Helen Sear: Beyond the View #9, 2010

Unequal power relationships have resulted in, for Jane Darke, 'traditional ideologies [that] view the home as the private realm of the woman, whilst the public sphere (paid work, politics) is predominantly the man's space.'[66] The garden is generally viewed as an extension to this private realm and is often recognized as an enclosed, domestic and feminine space with women responsible for the labour and decision making. Griselda Pollock writes extensively on Impressionist female artists working in the confined, social and gendered environments of the bedroom, drawing room, veranda and private garden, in particular Berthe Morisot (1841-1896) *La Chasse aux Papillons* (1874) and Mary Cassatt (1844-1926) *Auguste Reading to Her Daughter* (1910) who painted in areas morally and culturally accessible to women.[67]

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[66] Jane Darke, "Women and the Meaning of Home," in *Housing Women*, eds. Rose Gilroy and Roberta Woods (London: Routledge, 1994).
[67] Griselda Pollock, "Modernity and the Spaces of Femininity," in *Vision and Difference: Feminism, Femininity and Histories of Art* (London: Routledge Classics, 2003), 248.

In my practice, I wish to avoid a binary humanist ideal of man at the centre of all things. I take a deliberately posthumanist, post-feminist, technological position so there are no bodies of any gender in my photographs. I remove any sense of *a* particular body to eliminate any binary of gender by depicting a person. By rejecting any suggestion of identity references Rosi Braidotti's ideas on 'the positivity of difference and posthuman ethics' that reject 'the binary logic of identity and otherness' in the humanist 'scale of asymmetrical power relations.'[68] My photographs consider the posthumanist position in that they are produced through interactions between and 'assemblages of human, non-organic, machinic and other elements.'[69]

Though my position is about looking and therefore culturally subjective and nuanced, my practice predominantly relies on light and matter and the transposition of light into form. Practitioners are therefore included for their relevance to or influence on my practice and are not chosen for any particular gendered interpretation.

iii)   As Studio Space

I refer to my garden as the "studio garden". This "studio" site could refer to any garden, landscape or site with uncontrolled light. Artists' studios are unique spaces of production, the locus of creativity. They share basic features like walls and tend to be stationary, private places yet the studio garden is open to the serendipitous nature of the elements while the other is closed, contained and controllable. Working within the studio garden is dictated by the changing seasons, time of day, available light and the climate whereas conditions within the closed studio can be inflexible and immutable, referencing the single and limited Cartesian viewpoint. Emile Zola's novel *The Masterpiece* (1886) is a fictional portrait of Claude Lantier, a troubled Impressionist painter, based on his friend Paul Cézanne and his studio in the South of France with its view of Mont Sainte Victoire (though

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[68] Rosi Braidotti, "Posthuman Critical Theory," *Critical Posthumanism and Planetary Futures*, XIII, 277. (2016): 1, accessed January 24, 2018. file:///C:/Users/Jan/Downloads/9788132236351-c2%20(4).pdf
[69] Rosi Braidotti, *Metamorphoses. Towards a Materialist Theory of Becoming* (Cambridge: Polity Press, 2002).

it's publication caused a permanent rift in their friendship). In an interview for *The Archives of American Art*, sculptor and land artist, Robert Smithson, mentions Cézanne specifically when he talks of having to move out of the studio and into the world to make his site-specific land art.[70] '[W]e now have to reintroduce a kind of physicality; the actual place rather than the tendency to decoration, which is a studio thing …' acknowledging the physical reference of making work outside the artist studio.[71]

The light in my studio garden is unique to this particular space and continually changes with the moving position and direction of the sun. Junichirō Tanizaki speaks eloquently of the light at the end of the day as 'fading rays clinging to the surface of a dusky wall, there to live out what little life remains to them.'[72] My studio garden lies in the northern hemisphere, in the north-west of England, and the sun sits low in these northern skies bringing a specific quality to the light, producing long shadows that accentuate the foliage. Light is an energy form that moves and illuminates the world in an allegorical sense but also in the real physical sense of illuminating space. Several things happen when light waves encounter an object and depend upon the construction of the object and wavelength. They 'can be transmitted, reflected, absorbed, refracted, polarized, diffracted, or scattered.'[73] 'The moisture-laden atmosphere of England may diffuse and obscure the light of the sun and create exaggerated perspectives […] while overcast skies […] provide a delicate, diffuse light that reveals […] intricate details of surface.'[74] Altostratus cloud (high sheets of light grey cloud that cover all or part of the sky) provides the perfect soft light, particularly important when using all seven pinholes, and minimizes the chances of over-exposure.

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[70] George P. Lebourdais, "A Brief History of the Artist's Studio," Artsy.net, Last modified August 27, 2016, accessed January 17, 2017, https://www.artsy.net/article/artsy-editorial-why-do-we-care-about-an-artist-s-studio
[71] "Selected Interviews with Robert Smithson: Fragments of a conversation," Robertsmithson.com, accessed January 17, 2017, https://www.robertsmithson.com/essays/fragments.htm
[72] Junichirō Tanizaki, *In Praise of Shadows*, trans. Thomas J. Harper and Edward G. Seidensticker (London: Vintage Books, 2001), 30.
[73] "Wave Behaviors," Mission Science, accessed 4.12.16, http://missionscience.nasa.gov/ems/03_behaviors.html
[74] Charles W. Moore, William J. Mitchell and William Turnbull Jr, *The Poetics of Gardens* (Cambridge, MA: The MIT Press, 1988), 7-9.

For Daniel Buren, one purpose of the studio is to filter the work of the artist prior to public view.[75] Selected work would then move from that space to a viewing area, 'its place of promotion', removing it from its place of production with the resultant change of status or context.[76] The meaning of the work can change, multiply and fragment into other, different, meanings. For art historian John Berger: 'The meaning of the original work no longer lies in what it uniquely says but in what it uniquely is.'[77] This situation exists with most exhibition spaces because most work will have been created elsewhere and this change in context requires careful consideration before the work is exhibited. All my photographs will be viewed in a place and form other than that of their creation and these changes in context will not provide the same light, sound, textures and experiences as those present at the time of making. This should not be viewed as a negative or lesser experience, but as a different experience, a new phenomenon.

The studio garden was the chosen space to experiment with the newly constructed pinhole camera.[78] Close to a dark space within the house to load/unload the film, it allowed the testing of the camera without having to transport the apparatus and tripod to another, distant, space for each exposure. During this period of testing time, the significance of the garden as a studio space became apparent, the fixed and private place where the work was made with all its limitations, borders and enclosures and it literally illuminated the subject of space. In my garden, I can explore and experiment with the ideas I have and, though my working methods can be taken out of this space and used elsewhere, the close relationship I have with my garden, the place I have tended and nurtured and that has evolved with me for over twenty years, would be missing. Here the significance of

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[75] Daniel Buren, *The Function of the Studio,* trans. Thomas Repensek. *October* 10 (1979): 51-58, accessed October 5, 2016, url: http://www.jstor.org/stable/778628

[76] Ibid.

[77] John Berger, *Ways of Seeing* (London: Penguin Books Ltd, 1977), 21.

[78] To facilitate my intention of producing multiple perspectives and focal planes within the same photograph, I had to design and build a pinhole camera. It consists of two 5-sided boxes, one sitting inside the other, providing a negative size of 10 inches by 8 inches that sits behind four pieces of quarter dowel that hold the photographic film or paper in place. The inside and outside is painted matt black and black velvet material covers the outside of the inner box to prevent light ingress. First three then four further holes were drilled into the front face of the camera and each has a wooden shutter to open and close. Small brass plates were drilled with either 0.5mm or 0.3mm holes and affixed to the inside front face of the camera behind the shutters. A handle is positioned on the outside of the inner box to allow it to be moved in and out, altering focal depth and a facility to attach the camera to a tripod is positioned on the bottom of the outer box. See Appendix II.

particular trees and plants resonates with me and brings a very personal experience into the process. I use this garden landscape to critically engage with "reality" as I perceive it.

The basic structure that provides the stability and backdrop for the individual entities within the photographic image in this studio space is a wall, sometimes glimpsed, at other times hidden [Figs. 5, 49, 55 and 60]. Against this wall structure lies the vegetation chosen, when planting, for its individual beauty and form: the mass of the honeysuckle, the ease of the tree trunk, the gnarl of the old rose tree. The resulting multiple views of the same elements enable me to experience the thingness of the wall, plant or tree as it presents itself in different ways, from different positions as I move throughout the space. The movement of camera and photographer, where the photographer interacts with the space throughout the making process, creates fluidity rather than stasis within the final image.

iv)   <u>As Agency</u>

Taking on Jane Bennett's concept of "thing-power" provides 'a way of encountering the nonhuman world' as dynamic and vibrant, having vitality rather than consisting of passive, inert objects.[79] Believing the vitality of matter to be real, Bennett accepts that this can be difficult to discern and is 'a much wind as thing' but, in this way, is regarded as 'a movement always on the way to becoming otherwise.'[80] Nonhuman bodies have 'the ability to make things happen, to produce effects' and agency is the capacity of an entity (human, nonhuman) to act in any given environment.[81] For Tim Ingold, landscape is not merely 'a backdrop to human activities.'[82] John Wylie concurs, believing it 'is a powerful, elemental and active agent […] it shapes us as we shape it' and becomes, following Ingold, 'the ongoing practice and process of dwelling.'[83] It is viewed, by Owain Jones and Paul Cloke (in a study of orchards in Somerset), as a place where many entities

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[79] Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham and London: Duke University Press, 2010), xvii.
[80] Ibid., 119.
[81] Ibid., 5.
[82] Tim Ingold, "The Temporality of Landscape," *World Archaeology* 25 (1993): 152-74.
[83] John Wylie, *Landscape* (Abingdon, Oxon: Routledge, 2007), 143, 162.

(people, flora, fauna, climate, history, culture, technology, topography) unite 'in a unique way to form an unfolding timespace of particular landscapes and places.'[84] They combine to form a material agency of human-nonhuman assemblages that can exert influence on attitudes, decisions, outcomes.[85] For Bennett, '[a]n assemblage owes its agentic capacity to the vitality of the materialities that constitute it.'[86]

Human and nonhuman entities are "actants", interveners - Bruno Latour's term meaning 'that which has efficacy, can *do* things … produce effects, alter the course of events.'[87] It is 'any entity that modifies another entity…'[88] The trees, plants, birds, insects, walls, wind, sun, rain, snow, light and I are all actants in the garden because we (they) can alter the course of events. As can the camera, which can show me things I might not be able to see. Walter Benjamin calls this the "optical unconscious."[89] Film goes beyond our sensitivity to visible light and so the camera can show us what we may not be able to experience and, in this way, enriches our perception.

e)   The Epigraph

I draw from the practice of Chinese painter Su Tung-Po (1036-1101), one of many artists who established the practice of inscribing poetry in the blank space of a picture, and I use the epigraph like one uses the poem to extend the experience of the photograph.[90] François Cheng notes that '[w]ithin a painting characterized by three-dimensional space, the poem, through its rhythm and its content (which relates a lived experience), reveals the process by which the painter's thought

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[84] Owain Jones and Paul Cloke, *Tree Cultures: The Place of Trees and Trees in Their Place* (Oxford and New York: Berg, 2002), 9.

[85] The notion of assemblages is an ontological framework borrowed from Gilles Deleuze and Félix Guattari in *A Thousand Plateaus*, trans. Brian Massumi (London and New York: Continuum, 2004).

[86] Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham and London: Duke University Press, 2010), 34.

[87] Ibid., viii.

[88] Bruno Latour, *Politics of Nature: How to Bring the Sciences into Democracy*, trans. Catherine Porter (Cambridge: Harvard University Press, 2004), 237.

[89] Walter Benjamin, "The Work of Art at the Age of its Technical Reproducibility" (Second Version) (1955), in *The Work of Art at the Age of its Mechanical Reproducibility and Other Writings on Media,* eds. Michael W. Jennings and others, trans. Edmund Jephcott and others (Cambridge, Massachusetts and London: The Belknap Press of Harvard University Press, 2008), 37.

[90] François Cheng, *Empty and Full: The Language of Chinese Painting* (Boston, MA and London: Shambhala Publications Inc, 1994), 14.

process arrived at the picture.'[91] The addition of the epigraph under my photographs brings space and time into one place. It situates the photograph within the studio garden and brings a specific duration to the evolving time that created it.[92] Epigraphs are fragments and the epigraph is a fragmentary form in a similar way in that my photographs are fragmentary forms of experience.

These epigraphs are extracted from notes in my working diaries. They are comments made while sitting in the garden waiting for film exposures to take place. They contain information about the conditions as well as my reflections and ideas, doubts and uncertainties as the photograph was made [Fig. 5]. The notes bring together the sensations that I experience as I wait – what I see, smell, touch, hear and think as they occur. These senses are integrated and are not regarded in isolation but combine at every stage of processing to aid perceptual experience. Laura Marks (2000) speaks of 'using [...] vision as though it were a sense of touch' arguing that '[i]n haptic visuality, the eyes themselves function like organs of touch' thus creating a closer form of looking.[93] This references Merleau-Ponty's notion of the interaction between the senses and the sensuality and simultaneity of experience. He says, 'My perception is [...] not a sum of visual, tactile, and audible givens: I perceive in a total way with my whole being: I grasp a unique structure of the thing, a unique way of being, which speaks to all my senses at once.'[94] For Luce Irigaray, 'touching [...] concern(s) an intimacy that cannot be approached with the hand.'[95] Intimacy can develop from internal relationships between human and nonhuman subjects and touch or touching, viewed in this way, is not restricted to a physical act. Like the gaze, it is not arrested or limited and so offers countless opportunities for the individual experiences.

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[91] François Cheng, *Empty and Full: The Language of Chinese Painting* (Boston, MA and London: Shambhala Publications Inc, 1994), 96.
[92] "Studio garden" refers to the research space that is my garden landscape and is discussed later in the thesis.
[93] Laura U. Marks, *The Skin of the Film: Intercultural Cinema, Embodiment, and the Senses* (Durham and London: Duke University Press, 2000), 127 and 162.
[94] Maurice Merleau-Ponty, "The Film and the New Psychology," in *Sense and Non-Sense*, (Evanston, Illinois: Northwestern University Press, 1964), 18.
[95] Luce Irigaray, "Toward a Diving in the Feminine," in *Women and the Diving: Touching Transcendence,* eds. Gillian Howie and J'annine Jobling (New York: Palgrave Macmillan, 2009), 23.

Fig. 5: Meanwhile/Becoming - Photograph No 58, 3 Tears, 1&2 Apertures (16 May 2013)

Blue sky and clouds, little breeze, mostly cloud cover. I was thinking today about perspective and how I prefer my photographs to look as though there isn't one, though there is obviously some depth in them. It's almost as if I am looking for anti-perspective through the use of multi-viewpoints. A disruption in what the viewer would normally expect, a shifting of planes to create something that becomes impenetrable and dense yet full of life and stuffed full of natural beauty.

The epigraph is one aspect of traditional Chinese painting that has influenced and helped to define and articulate my photographic practice, but I also draw upon the way space is depicted, arbitrary sizing, scale, the use of voids and three depths as well as the decision to photograph in black and white rather than in colour.[96] Chinese and Japanese photography is not relevant to the research in this thesis and is not considered further. Instead, key influences within Chinese and Japanese art lie with painting and, in particular, the work of specific Chinese

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[96] As part of the research, experiments with colour film were undertaken at the early investigative stage and compared with photographs made with black and white film. It became obvious that using colour was distracting and confusing. The photographic images did not provide what I wanted from them or failed completely so it was part of my methodology to reject the use of colour for this particular project.

artists/painters since the fourth century allow me to better articulate and define my work with their understanding of space and place.[97]

f)   The Multiple Pinhole Camera

The ability to incorporate various concepts and theories on multiplicity, perspective, vision and duration into a symbolic form presented a challenge as part of the research. The limitations of conventional analogue and digital cameras did not afford me the flexibility I needed; to produce photographs onto single pieces of film or photographic paper and to incorporate multiple viewpoints whilst acknowledging the experientiality of being in a particular space.[98] I considered twin lens reflex and stereoscopic cameras but the twin lens reflex camera provides a single fixed viewpoint as the photographer looks through one lens but takes the photograph through the other, and stereoscopic cameras and cameras specifically designed to take multiple photographs have their own limitations.

Endeavouring to find an apparatus to achieve the aims of *Meanwhile/Becoming*, I realised I had to design and build a unique pinhole camera with multiple pinhole apertures with the ability to alter focal length during exposure time, which was developed and modified with the practice. I chose to build a 10in x 8in pinhole camera (see Appendix II), which links to early photographic processes and landscape photography and gave an increased assurance of photographs with higher resolution. I deemed this necessary when considering the characteristics of the pinhole camera, especially when using the less light sensitive and responsive photographic paper. The ability to alter the focal length of the camera is pertinent to my research to emulate how humans view the landscape with changes in focus where some objects would appear nearer to the viewer than others.

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[97] Japanese ukiyo-e pictures (ukiyo-e means pictures of the floating world) in their earliest form are black and white prints made from single woodblocks, later coloured by hand and later still printed in colour (from 1765). They are mentioned here to indicate an awareness of this method of picture making, not as a comparison to the visual space depicted by Chinese painting.

[98] In this thesis, experientiality means the 'embodiment of [perceptive] faculties, the understanding of [intentionality], the perception of temporality, and the emotional evaluation of experience' as expressed by Marco Caracciolo, *Experientiality*, The Living Handbook of Narratology, July 2014 [accessed 14.6.17] url: http://www.lhn.uni-hamburg.de/article/experientiality#Fludernik1996 citing Monika Fludernik, "Natural Narratology and Cognitive Parameters," in *Narrative Theory and the Cognitive Sciences,* ed. David Herman (Stanford: CSLI Publications, 2003), 243–67.

Shifting focal lengths and/or changing direction during exposure produces complex photographs more akin to what might be perceived by the roving eye.

The thesis for *Meanwhile/Becoming* is divided into three themed chapters with an introduction and a concluding chapter.

In Chapter 1 "Perspective", I investigate perspective on a number of levels: the scientific, through the single viewpoint of Cartesian Perspective; the philosophic, through Merleau-Ponty's *Phenomenology of Perception* and the heterotopic spaces of Michel Foucault, as well as physiological perspectives of vision. I will argue that the detachment between the viewer and the viewed object fails to include the observer to be part of, and experience, the space. Engaging Martin Jay and Jonathan Crary, I discuss the historical construction of vision and the reorganization of vision prior to 1850. I also examine the break with and collapse of the Renaissance model of vision and focus on the observer rather than on representation.

I discuss what the standard received Renaissance art historical text tells us about linear perspective and what I have found when thinking about the practice of photography in terms of light. Through landscape painting, I examine how the viewer has become conditioned by principles of perspective laid down in fifteenth century Northern Europe and argue that these principles contradict the way humans actually see. I analyze cultural differences of spatial cohesion in paintings that do not adhere to these limitations and refer to texts written by George Rowley and François Cheng discussing how certain Chinese artists have represented space. Chiang Yee provides a different perspective with his practical experiences of painting the English countryside in the traditional style of his homeland, challenging how Chinese art is understood and interpreted.

By moving away from the rigid constraints of Renaissance perspectivalism, my intention is to find, through a series of single photographs taken with my multiple pinhole camera, a way of producing photographs more closely associated with how human eyes see as they move in dynamic fashion, moving with what

scientists call saccadic jumps.[99] The eyes move around a scene, locating multiple points of interest and create a three-dimensional "map" that corresponds to the scene rather than looking with the fixed steadiness of the single viewpoint of the camera lens. Understanding the construction of paintings displaying characteristics of linear perspective enables me to break down this dominant visual order and reconstruct my own method of picture making.

Texts surrounding linear perspective primarily lie with its rediscovery, history and practical application from the mid fifteenth century and address why it became the dominant visual order in Northern Europe. Rebekah Modrak believes a history of draftsmanship and painting has reinforced these principles and W.J.T. Mitchell argues that it was readily accepted and absorbed into an age of 'reason, science and objectivity.'[100] The camera's invention supported the belief that this was the accepted mode of representation and continued to reinforce the perspectival vision.

In Chapter 2 "Meanwhile", I take the concept of the *meanwhile* as the timespace between events where *becoming* becomes and consider the notion of "temporal space" within the photographic image, explored through the landscape of the domestic garden. Aspects of this temporal space are considered with the philosophical notions of Merleau-Ponty's phenomenology of perception, Deleuzian ideas on the event and Doreen Massey on movement and multiple durations and the applications of these concepts by thinkers that include visual artist and writer Yve Lomax, visual theorist Jonathan Crary and political theorist Jane Bennett.

Merleau-Ponty addresses the experience of being-in-the-world and the integrated sensual experience of a phenomenon, of, say, a snowy morning, in *Phenomenology of Perception*, subsequently redefining vision in terms of corporeality. However, he does not account for the technological mediation of the camera as, for

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[99] Looking is achieved by orienting the eyes by 'directing their visual axes to point to a new location. Large orienting movements involve [coordinated] action of the eyes, head and body, but smaller movements, such as those made when looking at a picture [or scene] are made with the eyes alone.' Alfred L. Yarbus, *Eye Movements and Vision,* trans. Basil Halgh (New York: Plenum Press, 1967). These step movements are known as saccades or saccadic eye movements.
[100] Rebekah Modrak and Bill Anthes, *Reframing Photography: Theory and Practice* (Oxford: Routledge, 2011); William J. T. Mitchell, *Iconology: Image, Text, Ideology* (Chicago and London: University of Chicago Press, 1987), 37.

instance, Gilbert Simondon (who influenced Deleuze) and Vilém Flusser who discuss technology and the incorporation of the machine into the family of things human and as a way of making things visible.[101] Merleau-Ponty's "things in the world" are considered by Bennett in the role that nonhuman objects play in the everyday.

Meanwhile is considered in Deleuzian terms to suggest a temporary state between events, but, contrary to Deleuze who regards '[t]he meanwhile […] is always a dead time; it is there where nothing takes place,' I suggest this temporary state between events is where creativity and change occurs.[102]

Massey regards space as the dimension where multiplicity and simultaneity of different trajectories exist simultaneously, connected through movement. As we move through space we cut through the movements of others that are occurring concurrently. Massey's position articulates how awareness of spatial factors of landscape or a site ends up determining durational factors. A key part of the methodology of how I approach this work of what could be called landscape pictures (which they are not) include durational factors. While Massey's emphasis is with space and the duration and simultaneity of times, Gilles Deleuze, in Chapter 3, examines a similar stance towards duration and plurality of times.

Chapter 3, "Becoming", explores research on theories of time and duration and temporality in spaces where things exist at the same time. This is the dimension of multiplicity, of simultaneity that the photographs of *Meanwhile/Becoming* encompass. This is considered through Deleuze's ideas on the plurality of times, Henri Bergson on duration and movement, Yve Lomax on the interruption and control of time and the application of these concepts by thinkers such as Elizabeth Grosz and Rosi Braidotti. It discusses the becoming of form in the photograph through the critical theory of Deleuze and Guattari, the significance of creative process and duration, and change in terms of difference and repetition where difference challenges the traditional theory of representation.

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[101] Maurice Merleau-Ponty, *Phenomenology of Perception,* trans. Donald A. Landes (Abingdon, Oxon and New Yok: Routledge, 2012), 3-12; Gilbert Simondon, *On the Mode of Existence of Technical Objects*, trans. Ninian Mellamphy (Paris: Aubier Editions Montaigne, 1958); Vilém Flusser, *Towards a Philosophy of Photography* (London: Reaktion Books, 2012).
[102] Gilles Deleuze and Guattari, Félix, *What is Philosophy?* trans. Graham Burchill and Hugh Tomlinson (London and New York: Verso, 2013), 158.

One of the more obvious aspects of pinhole photography is that it slows you down. Time is taken with the loading of film, exposure, development and printing as well as deliberations over subject matter. The controlling of time is considered by Yve Lomax in her essay titled, *Thinking Stillness* where she encounters the words of Jean-François Lyotard discussing the obsession humans have with controlling time.[103] This causes her to ask if we can cultivate a time that can still surprise us with the unexpected.[104]

The concept of *becoming* is what occurs within the *meanwhile*, that time between events when change happens, when thought is given time. Sitting waiting or moving with and around the camera gives me the time and space (the *meanwhile*) to consider and contemplate what is happening around me, what I can see, feel, hear, smell, touch. It creates an interruption in the day-to-day when I remove myself from the humdrum and turn my thoughts completely towards being in a specific space at a specific time, to combine the dimensions of space with time. Slowing things down references the history of photography when technical and scientific limitations made long exposure times necessary for the process of making photographs. Sally Mann uses the nineteenth-century wet plate collodion process in her series titled *Deep South* (1998). She refers to the apparent sensation of time slowing down as she drove south, beyond her home in Virginia, USA:

> From the moment I passed into Mississippi, my time became ecstatic. It is a fact for me that certain moments in the creative process, moments when I am *really seeing*, become somehow attenuated, weirdly expansive … I broke through into that dimension of revelation and ecstasy that eludes historical time.[105]

This also references the equally slow processes connected to pinhole photography, the gradual accumulation of light creating form where form did not exist. The camera is not to be thought of as a means of producing representations of time, but as a machine through which time itself might be experienced in its moment of becoming.

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[103] Yve Lomax, "Thinking Stillness," in *Stillness and Time, Photography and the Moving Image*, eds. David Green and Joanna Lowry (Brighton: Photoforum and Photoworks, 2006), 55-63.
[104] Jean-Francois Lyotard, "Time Today," in *The Inhuman Reflections on Time*, trans. Geoffrey Bennington and Rachel Bowlby (Cambridge: Polity Press, 1991), 73-74.
[105] Sally Mann, *Deep South* (New York, Boston: Bulfinch Press, 2005), 49.
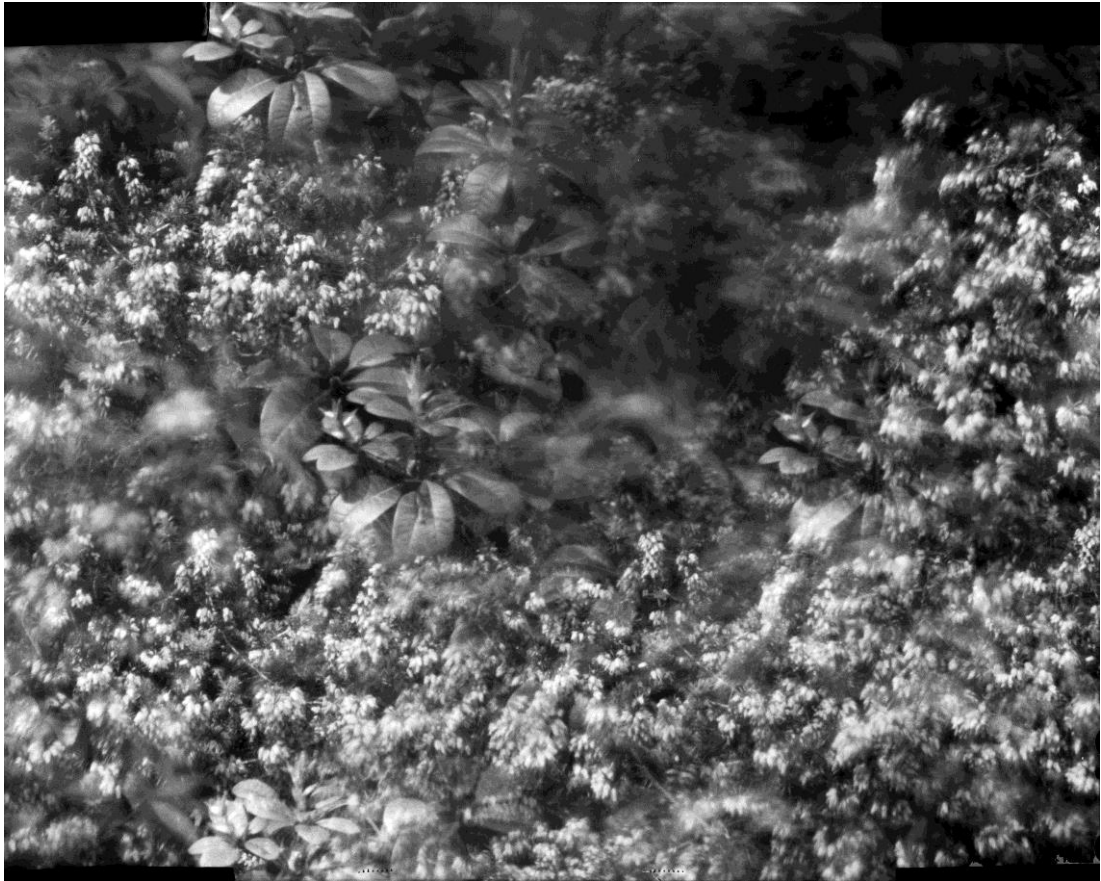
Chapter 1 – Perspective

Fig. 6: Meanwhile/Becoming - Photograph No. 106 – 2 Cuts, 7 Apertures (11 May 2014)

11th May 2014

The day is overcast but with even, high cloud cover and the wind is rather gusty so blur will be evident. Today will be the first time I've used film instead of photographic paper and I'm nervous about getting it right. 10 x 8in sheet film is expensive so I can't afford too many mistakes. Film, being more sensitive than paper, will need much less exposure time so I'm using a 90 second exposure on the FP4.

The perspective in photograph no.106 [Fig. 6] above questions our understanding of the photograph and what we expect it to do. We think we comprehend but visually, elements within the photograph appear to move forward towards the viewer. There are no guidelines: there is no centric point to fix our gaze, no horizon to rely upon. The eye moves ceaselessly in saccadic fashion, trying to make sense of what it sees.

Perspective is a particular way of considering something. This research involves investigation into the scientific (single viewpoint of Renaissance Linear Perspective), the philosophic (Merleau-Ponty's *Phenomenology of Perception)* and physiological perspectives of vision. This chapter argues that linear perspective, from the point of view of what standard received Renaissance art historical text tells us, epitomizes a particular and limited representation of the visual world. The research asks, if multiple viewpoints are employed rather than the "one-eyed" fixed perspective of the single lens camera, would they more closely represent the saccadic eye movements of the human eye scanning the landscape? Further, would the multi-planar photographs incorporate the experience of and position of the viewer within the world they inhabit, augmenting an understanding of things as they are perceived, rather than the nature of things as they are?

Vision is what the human eye is physiologically capable of seeing. Visuality refers to the way in which vision is constructed in various ways. For Hal Foster, it is 'how we see, how we are able, allowed, or made to see, and how we see this seeing and the unseeing therein.'[106] Martin Kemp feels a distinction should be made between, 'the properties of things (including the physical phenomena of the visual process) and the nature of the mental sensations which are responsible for our perception of spatial order,' though I believe we employ a combination of these elements to let us see and to make sense of what we are seeing.[107] Each individual, of course, will "see" differently depending upon that individual's physical eye condition and the (perceived) experiences they have encountered up to that point. There is also the argument put forward by William Porterfield that our perception of space and sense of sight, 'depend not on Custom and Experience, but an original connate and immutable Law to which our Minds have been subjected from the Time they were at first united to our Bodies.'[108]

Merleau-Ponty's contribution to this anti-ocularcentric discourse is his belief that 'science manipulates things and gives up living in them' and 'comes face

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[106] Hal Foster, "Preface," in *Vision and Visuality: Discussions in Contemporary Culture,* ed. Hal Foster (Seattle: Bay Press, 1988), ix.

[107] Martin Kemp, *The Science of Art: Optical Themes in Western Art from Brunelleschi to Seurat* (New Haven and London: Yale University Press, 1990), 234.

[108] William Porterfield, *A Treatise on the Eye: The Manner and Phaenomena of Vision in Two Volumes* (London: A. Miller and Edinburgh: G. Hamilton and J. Balfour, 1759), 229 in Martin Kemp, *The Science of Art: Optical Themes in Western Art from Brunelleschi to Seurat* (New Haven and London: Yale University Press, 1990), 234.

to face with the real world only at rare intervals.'[109] In fact, Merleau-Ponty was deeply suspicious of the perspectival gaze in Cartesian thought 'which often extended to the primacy of vision itself.'[110] He was influenced by German critics of ocular-centricity, Edmund Husserl and Martin Heidegger. As Jay explains, Husserl 'radically undermined the spectatorial distance between viewing subject and viewed object in the Cartesian epistemological tradition.'[111] In Husserl's philosophy, Merleau-Ponty saw a move towards the idea that consciousness was 'essentially embodied' and 'historically situated' away from the broadly Cartesian way of thinking.[112] Heidegger was equally dismissive when he wrote, 'there comes to the fore the impulse, already prepared in Greek thinking, of a looking-at that sunders and compartmentalizes.'[113] For Berger, 'there is no visual reciprocity.'[114] Geometric manipulation of the visual space in perspectivalism emphasizes the "gap" and distances the viewer from the scene. This situation had changed by the late nineteenth century as seen in the confrontational gazes of Édouard Manet's nudes in *Déjeuner sur L'herbe* (1862-3) and *Olympia* (1863) [Fig. 7], which bridged that "gap" allowing a closer connection between the viewer and subject.[115]

Fig. 7: Édouard Manet, *Olympia*, 1863, Musée d'Orsay, Paris, France, Oil on canvas

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[109]L'oeil et l'esprit appeared in *Art de France* 1, No. 1, January 1961 and was reprinted after his death in *Les Temps Modernes*, 184-185; Maurice Merleau-Ponty, "Ontology and Painting: Eye and Mind," in *The Merleau-Ponty Aesthetics Reader: Philosophy and Painting,* eds. Galen A. Johnson and Michael B. Smith (Evanston, Illinois: Northwestern University Press, 1993), 121.

[110] Martin Jay, *Downcast Eyes: The Denigration of Vision in Twentieth-Century French Thought* (Berkeley, Los Angeles and London: University of California Press, 1994), 264-266.

[111] Ibid., 267.

[112] Komarine Romdenh-Romluc, *Routledge Philosophy Guidebook to Merleau-Ponty and Phenomenology of Perception* (Abingdon, Oxon and New York: Routledge, 2011), 13.

[113] Martin Heidegger, "Science and Reflection," in *The Question Concerning Technology and Other Essays*, trans. William Lovitt (New York: Harper & Row Publishers, 1977), 166.

[114] John Berger, *Ways of Seeing* (London: Penguin Books Ltd, 1977), 16.

[115] Martin Jay, "Scopic Regimes of Modernity," in *Vision and Visuality: Discussions in Contemporary Culture*, ed. Hal Foster (Seattle, Washington: Bay Press, 1988), 8.

<u>Light and Vision</u>

Without light there is no vision. I utilize available natural light (rather than introduce artificial lighting to create new light spaces) to include the phenomenal perceptions of working in a studio garden space with constantly variable lighting conditions. The use of artificial (concrete) light to create light spaces involves total manipulation of the light sources whereas I am subject to the vagaries of the weather conditions at the time of making.[116] It is necessary to understand light and how it behaves in relation to a multiple pinhole camera before I continue further with my experimentation.

Geometric optics, as laid down by Sir Isaac Newton in his 1704 work *Opticks* and utilized by the single lens camera [Fig. 8] and other ocular devices, 'treats light as continuous rays (as opposed to waves or particles).'[117] This concept of light-rays may have developed from seeing shadows cast by illuminated objects or the straight paths of beams of sunlight.[118] For Newton, light-rays behave according to three laws; they 'move through similar transparent media in straight lines; when a light-ray encounters a smooth, shiny surface, such as a mirror, the ray bounces off that surface; [and the way] light-rays behave when they pass between two different media such as air and water.'[119]

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[116] In 1966, the Stedelijk Van Abbemuseum in Eindhoven, Netherlands, was the first to hold an exhibition focusing exclusively on artificial light, moving away from earlier exhibitions involving the kinetic moment of light and movement (*Bewogen beweging*, 1961 or *Licht und Bewegung*, 1965). Artists created new light spaces working either individually or collectively - Günther Uecker's *Lichtplantage* (Light Plantation), Heinz Macks' *Lichtkette* (Light Chain), Otto Piene's *Lichtgeister* (Light Spirit). For a full commentary, see Stephan von Weise "KunstLichtKunst: The Artificial Light Spaces" by Gruppo T and ZERO for Eindhoven in *Light Art from Artificial Light: Light as a Medium in 20th and 21st Century Art*, Peter Weibel and Gregor Jansen, eds (Berlin: Hatje Cantz, 2006), 449-466.

[117] "Mirror Image: Reflection and Refraction of Light," Livescience, Last modified October 1, 2014, accessed February 6, 2017, www.livescience.com/48110-reflection-refraction.html; Isaac Newton, *Opticks: Or Treatise of the Reflections, Refraction, Inflections and Colours of Light* (New York: Dover Publications, 1952). *Opticks* was originally published in 1704.

[118] Maurice Henri Pirenne, *Optics, Painting and Photography* (London and New York: Cambridge University Press, 1970), 13.

[119] "Mirror Image: Reflection and Refraction of Light," Livescience, Last modified October 1, 2014, accessed February 6, 2017, www.livescience.com/48110-reflection-refraction.html
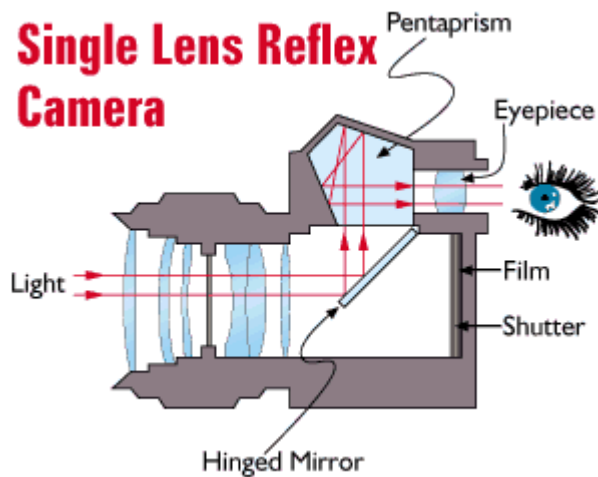
Fig. 8: Diagram of an SLR Camera[120]

This light-ray theory does not explain diffraction, a term introduced by Francesco Maria Grimaldi (1618-1663) and defined as the bending of light around the corners of an obstacle or aperture. This phenomenon is described as the interference of waves according to the Huygens-Fresnel principle.[121] Further investigation of diffraction, polarization, interference and light scattering led to the acceptance of the wave-theory of light, early in the nineteenth century. Twentieth century modifications to this theory maintain light waves are electromagnetic waves and light is regarded as a form of radiant energy leading to the development of quantum theory.[122] Quantum optics unites the two competing theories and covers the behaviour and property of photons including wave-particle dualism.[123] The quantum modelling of light in terms of what it does, is an area that photography looks at. However, I have not chosen this model or method to work through. The quantum theory of light is complex, so, for the purposes of this thesis, diffractive optics more suitably explains the interference of light waves.[124] Maurice Pirenne concludes that: 'Light in transit behaves likes waves and this helps to

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[120] "How a Digital Camera Works," DP Tips Central, accessed February 6, 2017, www.dptips-central.com/how-a-digital-camera-works.html

[121] "Huygens-Fresnel Principle," Atmospheric Optics, accessed February 6, 2017, www.atoptics.co.uk/droplets/huygens.htm

[122] Maurice Henri Pirenne, *Optics, Painting and Photography* (London and New York: Cambridge University Press, 1970), 21.

[123] "Mirror Image: Reflection and Refraction of Light," Livescience, Last modified October 1, 2014, accessed February 6, 2017, www.livescience.com/48110-reflection-refraction.html

[124] Thomas Beth and Jörn Müller-Quade "Diffractive Optics," in *Light Art from Artificial Light: Light as a Medium in 20th and 21st Century Art,* Peter Weibel and Gregor Jansen, eds. (Berlin: Hatje Cantz, 2006), 668.

explain that different fluxes of light can cross in space, in the pinhole of a camera and in the pupil of the eye' without hindrance.[125]

For Jonathan Crary, the development of optics and the new wave theory (confirmed by Thomas Young's double slit experiments) 'made obsolete the notion of a rectilinear propagation of light rays on which classical optics and, in part, the science of perspective was based.'[126] Consequently, perspectival models resulting from the Renaissance and later, lost the legitimacy that a science of optics offered. Perspectival construction continued to be employed but could no longer lay claim to the scientific basis that once sanctioned it.[127] To demonstrate the new wave theory, in a darkened room a thin beam of sunlight is passed through an aperture onto two narrow slits. The light diffracts as it passes through the slits and the light waves then interact to create a diffraction pattern, spreading the light.

Figs. 9 and 10 show how the movement of light waves is affected when passing through first one slit and then two. Fig. 9 shows the diffraction of plane waves passing through a single aperture. When two apertures are positioned close together, the light diffracts as it passes through the slits and travels 'different distances before meeting at the screen.'[128] Fig. 10 shows this effect. With the multiple, closely spaced apertures on the front of my camera, a complex diffracted light wave pattern of varying intensity results.

Fig. 11 shows the interference of water waves from two separate sources, a visual example of how light waves do not travel in the straight lines of linear perspective. Instead they bounce against each other, move off in different directions and create intricate patterns as they move outwards from the source.

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[125] Maurice Henri Pirenne, *Optics, Painting and Photography* (London and New York: Cambridge University Press, 1970), 22.
[126] Jonathan Crary, *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* (Cambridge, MA: MIT Press, 1992), 86.
[127] Ibid., 86.
[128] "Gratings," PhilPem.me.uk, accessed January 28, 2017, http://pe2bz.philpem.me.uk/Lights/-%20Laser/Info-902-LaserCourse/c06-09/mod06_09.htm
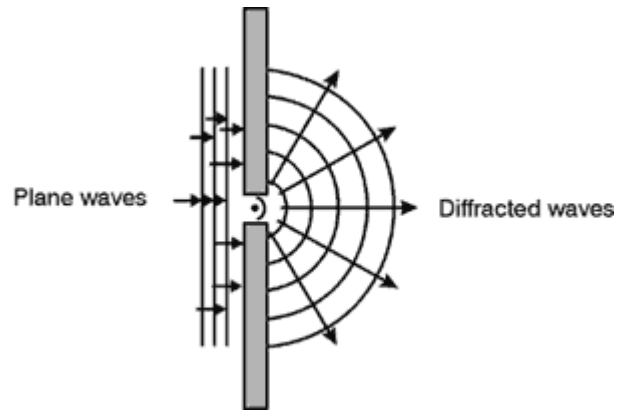
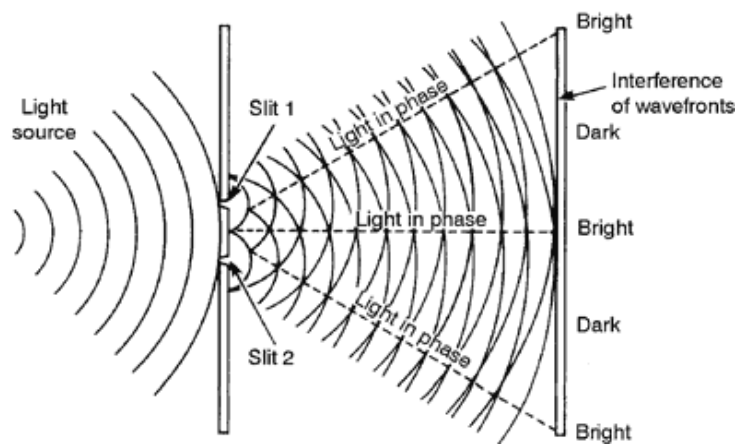*Fig. 9: Side view of plane wave diffraction through a long, narrow slit.*[129]

Fig. 10: Side view of interference of light diffracted by two long, narrow slits[130]
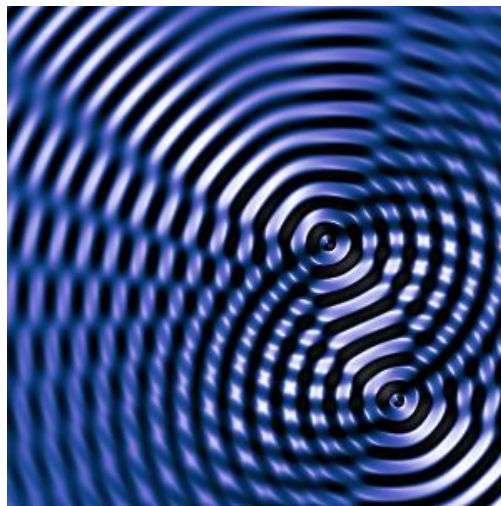

Fig. 11: Image of wave interference[131]

[129] "Gratings," PhilPem.me.uk, accessed January 28, 2017, http://pe2bz.philpem.me.uk/Lights/-%20Laser/Info-902-LaserCourse/c06-09/mod06_09.htm

[130] Ibid.

[131] "Interference," Quantum Coherence, Last modified October, 2011, accessed January 28, 2017, https://coherence.wordpress.com/2011/10/
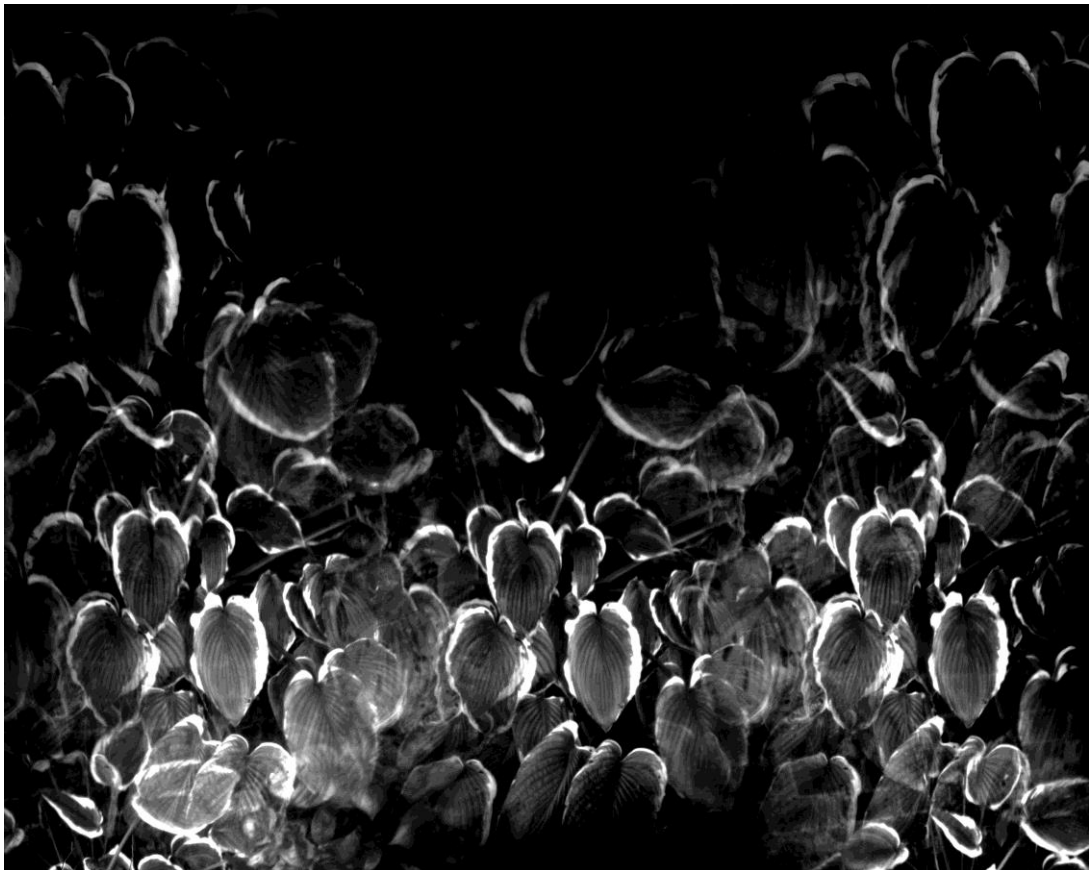
Fig. 12: Meanwhile/Becoming - Photograph No. 84 – 2 Tears, 7 Apertures (20 October 2013)

Photograph no 84 [Fig. 12] shows how the light waves through seven pinholes diffracted within the camera before settling onto the photographic paper. It is difficult to see seven different viewpoints, only five can be seen clearly. The hostas sit in heavy shade under a pine tree and, accompanied by the reduced light available in October, this meant the quality and quantity of available light entering the camera was limited. One central pinhole in the middle of the camera has resulted in the dark area at the top whereas three pinholes opened top to bottom on the left and right of the camera provide sufficient light to pick out the hosta leaves. Seeing the interference waves from two separate sources in Fig. 11, one can only imagine the intricate patterns created by seven separate sources of light.

Seemingly ignoring the knowledge of the physics of light, from the nineteenth century, the discussion of the development and diffusion of photography in standard photographic textbooks has, according to Crary, been 'presented as part of the continuous unfolding of a Renaissance-based mode of vision in which

photography [is an instance] of an ongoing deployment of perspectival space and perception.'[132] The invention of the camera (and cinema and television) supported the belief that this was the accepted mode of representation and continued to reinforce the perspectival vision. Geographer Yi-Fu Tuan notes that, 'photography has strengthened and popularised the perspectival vision.'[133] W.J.T. Mitchell concurs believing the effect of this artificial perspective convinced an entire civilization of its infallible method of representation, which was reinforced with thought, scientifically proven knowledge and impartiality. He says:

> No amount of counter demonstration from artists that there are other ways of picturing what "we really see" has been able to shake the conviction that these pictures have a kind of identity with natural human vision and objective external space. And the invention of a machine [the camera] built to produce this sort of image has, ironically, only reinforced the conviction that this is the natural mode of representation.[134]

Ocular capacity has been expanded through devices like the telescope, microscope, camera, cinema and television, and believed to extend the range of vision, notes Jay, by 'compensating for its imperfections, or finding substitutes for its limited power.'[135] The limitations of these perspectival images prevent the viewer from seeing the world as they perceive it. Optical devices are intended to augment or intensify the function of the human eye and though the camera incorporates many of the features of the eye (an aperture (iris), lens and light sensitive cells (retina)), the camera does not record how or what our eyes actually see. It is a tool with a single lens that brings a restricted viewpoint into the light space.

This restriction is indicated in Fig. 13, which shows the human visual field with binocular overlap approximating to the central part of the visual field

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[132] Jonathan Crary, *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* (London: MIT Press, 1992), 4. See James Mitchell, ed. "The Mechanism of Image Formation," in *The Ilford Manual of Photography* (London: Ilford Ltd, 1949), 1-26 for discussion on the physics of light and image formation in the twentieth century and Patricia Monahan, "Composing a Picture," in *Landscape Painting* (London: Quantum Publishing, 2004), 27-31 discussing picture composition and the concept and use of linear perspective in landscape painting.

[133] Yi-Fu Tuan, *Space and Place: The Perspective of Experience* (Minneapolis: University of Minnesota Press, 1977), 123.

[134] William J. T. Mitchell, *Iconology: Image, Text, Ideology* (Chicago and London: University of Chicago Press, 1987), 37.

[135] Martin Jay, *Downcast Eyes: The Denigration of Vision in Twentieth-Century French Thought* (Berkeley, Los Angeles, London: University of California Press, 1994), 3.

(including the foveated region); the central rectangle is the portion captured by a standard 50 mm camera lens. The normal human visual field (depending on the individual and prevailing light conditions) lies between 180-190° laterally and 120-130° vertically.[136] Viewed from the same vantage point, a camera will normally capture a portion of the total area visible to a human viewer (approximately 43° laterally) limiting the part of a scene that would be visible in a viewer's peripheral field.[137] Taken from his 1923 manifesto, Soviet film maker, Dziga Vertov (David Abelevich Kaufman) highlights the restrictions of its use and refers to the camera as 'an eye. A mechanical eye. I, the machine, show you a world the way only I can see it.'[138]
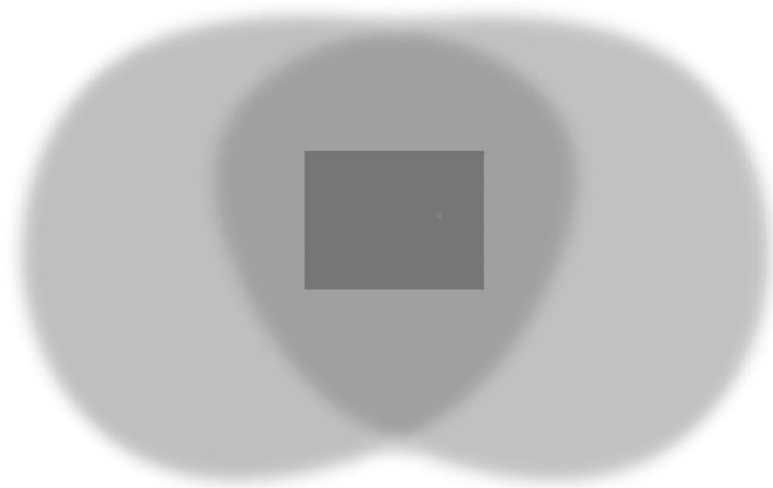
Fig. 13: Illustration of the human visual field including the area of binocular overlap in the mid-grey area[139]

When considering the above diagram, it can be concluded that using more than one aperture will extend the visual space constrained by the SLR camera accordingly. When I combine this with physically moving the camera and altering focal depth during exposure to mimic more closely the eye movements humans

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[136] James J. Gibson, *The Perception of the Visual World* (Oxford: Houghton Mifflin, 1950); Maurice Hershenson, *Visual Space: A Primer* (Cambridge: Bradford Books, 1999).

[137] James E. Cutting, "Reconceiving Perceptual Space," in *Looking Into Pictures: An Interdisciplinary Approach to Pictorial Space,* eds. Heiko Hecht, Robert Schwartz, and Margaret Atherton (Cambridge MA: MIT Press, 2003); Margaret A. Hagen, Rebecca K. Jones and Edward S. Reed, "On a Neglected Variable in Theories of Pictorial Perception: Truncation of the Visual Field," *Perception & Psychophysics* 23, (1978): 326–330.

[138] John Berger, *Ways of Seeing* (London: Penguin Books Ltd, 1977), 17.

[139] James J. Gibson, *The Perception of the Visual World* (Oxford: Houghton Mifflin, 1950) cited in Robert Pepperell and Manuela Haertel, "Do Artists Use Linear Perspective to Depict Visual Space?" *Perception* 43, (2014): 395-416.

employ to determine depth, the resulting photographs will register more of the scene than that obtained from a single unblinking eye.

Perception of depth, often referred to as "stereopsis", is gained through the visual information gathered from two eyes by individuals with normally developed binocular vision. The different lateral positions of the eyes of humans, and many animals, produce two slightly different images on the retinas, referred to as binocular disparity. Complex processing in the brain makes sense of what each eye sees and construes these differences as depth.

Attempting to overcome the limitations of the single lens camera, stereoscopic cameras were designed to mimic the function of human eyes. Like our eyes, the two lenses are positioned two and a half inches apart and this distance allows binocular vision. The camera produces two separate exposures, which appear merged together when viewed through a stereoscope, producing an illusion of three-dimensionality. Stereoscopic cameras became very popular in the second half of the nineteenth century and were used throughout the world.[140] Most mid-century commentators, according to Laura Burd Schiavo, saw it as an instrument, a tool 'for furnishing visual truths …'[141] Yet this is not the visual depth we are used to perceiving. This illusion of depth is incomplete because all points in the image produced by stereoscopy (regardless of their depth in the original scene) focus on planes or surfaces that are flat, thereby lacking optical cues to determine depth, or '"thickness" of the world.'[142] Crary calls it 'an assemblage of local zones of three-dimensionality, zones imbued with a hallucinatory clarity, but which taken together never coalesce into a homogeneous field.'[143] Stereoscopic images do not incorporate the variable planes experienced with the saccadic eye movements that are vital in our selective visual attention and will not be considered further.[144]

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[140] Kaja Silverman, *The Miracle of Analogy or The History of Photography, Part 1* (Stanford CA: Stanford University Press, 2015), 76.

[141] Laura B. Schiavo, "From Phantom Image to Perfect Vision: Physiological Optics, Commercial Photography, and the Popularization of the Stereoscope," in *New Media 1740-1915,* eds. Lisa Gitelman and Geoffrey B. Pingree (Cambridge: MIT Presses, 2003), 113-138.

[142] Kaja Silverman, *The Miracle of Analogy or The History of Photography, Part 1* (Stanford CA: Stanford University Press, 2015), 75.

[143] Jonathan Crary, *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* (Cambridge, Massachusetts and London: MIT Press, 1992), 126.

[144] Cf. Dale Purves, George J. Augustine, David Fitzpatrick et al, eds. "Types of Eye Movements and Their Functions." *Neuroscience*, no 2. (2001), accessed 20.6.16, url: www.ncbi.nlm.nih.gov/books/NBK10991/ and "Knowing How a Stereoscopic Camera Works," Steve's Digicams, accessed 4.2.17, www.steves-digicams.com/knowledge-center/how-tos/photo-accessories/knowing-how-a-stereoscopic-camera-works.html#b

Saccades are very small, very fast, simultaneous jerking movements of both eyes in the same direction, the purpose of which is to bring images of particular areas of the visual world to fall onto the fovea. Alfred Yarbus believes the 'nature of saccades is responsible for much of the refinement of perception' and that saccadic movements send continuous 'strings of information to the brain.'[145] Without this constant movement any image would begin to blur and eventually fade from the retina. Human eyes (and those of many animals) have bifocal overlap and stereoscopic capacity and they do not look at a scene in fixed steadiness. Berger notes:

> We never look at just one thing; we are always looking at the relation between things and ourselves. Our vision is continually active, continually moving, continually holding things in a circle around itself, constituting what is present to us as we are.[146]

The eyes move around, locating parts of the scene to build up a three-dimensional "picture" that relates to what is being looked at. For Tuan: 'Seeing … is not the simple recording of light stimuli; it is a selective and creative process in which environmental stimuli are organised into flowing structures that provide signs meaningful to the [viewer].'[147] These selective and creative processes begin before I enter the studio garden and continue throughout the making of the photographs, into the post-production stages in the darkroom and onto the scan and print. I will be drawn to a plant or aspect that presents interesting possibilities and move the camera and/or change the focal plane accordingly to register those interests. It may be the turn of a leaf or the skeletal underbelly of a plant that has died back – aspects that indicate life and death, the change of season, the existence/presence of different durations. Tuan's 'flowing structure' finally comes to reside in the exhibition space where it continues to enable personal interactions with other viewers.

In photograph no. 106 [Fig. 6], I concentrate on a dwarf rhododendron. It plays hide and seek within the photograph, clear and bold in some iterations,

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[145] Alfred Yarbus, *Eye Movements and Vision,* trans. Basil Halgh (New York: Plenum Press, 1967), 129; Rebekah Modrak and Bill Anthes, *Reframing Photography: Theory and Practice* (Oxford: Routledge, 2011), 6.
[146] John Berger, *Ways of Seeing* (London: Penguin Books Ltd, 1977), 9.
[147] Yi-Fu Tuan, *Space and Place: The Perspective of Experience* (Minneapolis: University of Minnesota Press, 1977), 10.

diminished and obscured in others. A repetition of rhododendron yet each repeat different. Foucault, speaking of the classification and grouping of things, helps to explain this phenomenon when he speaks of, 'creating groups then dispersing them [...] splitting up things that are identical, superimposing different criteria [...] beginning all over again.'[148] The *site* is removed allowing the entity (a rhododendron) to be juxtaposed amongst the interstitial spaces, linked to itself through flowing gestures of movement and hazy space.

The Cartesian Gaze

Throughout the research it has been impossible to ignore the influence of the geometrical construction that is linear perspective, rediscovered in the early 1400s and which, for Crary, 'remains embedded within the same general "realist" strictures that had organized [vision] since [that time].'[149] Rebekah Modrak concludes that we in the West have come to rely on a linear perspectival vision of the world, one governed by rules that determine ways of looking and seeing, and that 'a history of draftsmanship and painting continually reinforce principles of linear perspective, proportion and symmetry.'[150] Through or because of this dominant perspectival vision, Berger believes: 'The way we see things is affected by what we know or what we believe.'[151] Artists, by utilizing these pictorial principles in their work over centuries, have reinforced this rigid representation.

Perspective in Paintings

In Northern Europe during the fifteenth century, objects in landscape paintings have generally been organised around a focal point of converging sightlines (ocularcentric) that, for Eric Renner, transforms 'the simultaneity of space into a happening in time …'[152] In a letter dated 1413, Filippo Brunelleschi is

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[148] Michel Foucault, *The Order of Things* (Abingdon, Oxon: Routledge, 2002), xx.

[149] Jonathan Crary, *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* (Cambridge, MA: MIT Press, 1992), 4.

[150] Rebekah Modrak and Bill Anthes, *Reframing Photography: Theory and Practice* (Oxford: Routledge, 2011), 17.

[151] John Berger, *Ways of Seeing* (London: Penguin Books Ltd, 1972), 8.

[152] Cf. Eric Renner, *Pinhole Photography: From Historic Technique to Digital Application* (Oxford: Focal Press, 2009), 38; Samuel Edgerton Jr., *The Renaissance Rediscovery of Linear Perspective* (New York: Basic Books, 1975) for a full commentary on the history of linear perspective and Rudolph Arnheim, *Art and Visual Perception* (Berkeley and Los Angeles: University of California Press, 1965), 240.

associated with perspective suggesting its 'invention occurred at or before this date' but designs using the principles of perspective were not seen until the mid-1420s in, for example, the work of Masaccio's *Trinity* (c.1426).[153] Brunelleschi is traditionally accepted as being the first person to develop the theory of linear perspective using a small-apertured perspective device and Martin Jay notes that Leon Battista Alberti is 'almost universally acknowledged as its first theoretical interpreter.'[154]

One-point perspectives, as those practiced by artists such as Brunelleschi and articulated in Alberti's seminal yet short treatise *On Painting* (*De Pictura*, 1435), provide a concept of space that is, for Jay, 'geometrically isotropic, rectilinear, abstract and uniform' and enables three-dimensional objects to be recorded onto a two-dimensional surface following rules set out in Alberti's treatise and in later accounts written by Jean Pélerin (1505), Albrecht Dürer (1525) et al.[155] It is significant that the eye gazing at the focal point is not through 'the two eyes of normal binocular vision' but rather a singular viewpoint and this eye is 'static, unblinking and fixated rather than dynamic, moving with "saccadic" jumps from one focal point to another.'[156] Berger, notes that linear perspective 'structured all images of reality to address a single spectator who, unlike God, could only be in one place at a time.'[157] The multiple viewpoints found in medieval art were dismissed over a period of time in order to create illusions of space from a one-point perspective. From the sixteenth through to the early nineteenth century, the implementation of geometrical perspective spread from Italy to Germany and France and then on to Holland, Great Britain and the rest of the Western world. Thereafter, according to Crary, there was a move from 'the geometricalized laws of optics and mechanical transmission of light to the physical dimensions of human

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[153] Martin Kemp, *The Science of Art: Optical Themes in Western Art from Brunelleschi to Seurat* (New Haven and London, Yale University Press, 1990), 9 and 14. The letter is published by G. Tanturli, "Rapporti del Brunelleschi con gli ambienti letterai" in *Filippo Brunelleschi: La Sua Opera e il Suo Tempo* (Florence: Centro Di, 1980), 125.

[154] Martin Jay, "Scopic Regimes of Modernity" in *Vision and Visuality: Discussions in Contemporary Culture*, ed. Hal Foster (Seattle, Washington: Bay Press, 1988), 5.

[155] Ibid., 6; Leon Battista Alberti, *On Painting*, trans. Cecil Grayson (London: Penguin Classics, 2004). Later accounts refer to those written by Albrecht Dürer (*Underweysung der Messung,* 1525) and Jean Pélerin (*De artificiali perspectiva, 1505),* and influenced by the work of Roger Bacon (*Opus Magus*, Optics, 1267) and John Peckham (*Perspectiva Communis,* between 1277-79).

[156] Martin Jay, "Scopic Regimes of Modernity" in *Vision and Visuality: Discussions in Contemporary Culture*, ed. Hal Foster (Seattle, Washington: Bay Press, 1988), 7.

[157] John Berger, *Ways of Seeing* (London: Penguin Books Ltd, 1977), 16.

sight' and the new wave theory of light developed by Augustin Jean Fresnel in the 1820s.[158]

Linear perspective is characterized as light from a scene passing through an imaginary, metaphoric rectangle (a painting or window) to the viewer's eye. An example of one-point linear perspective is found in the work of Netherlandish painter Jan Van Eyck's *The Madonna with Chancellor Rolin* (c.1435) [Fig. 14]. In all perspective drawings, the viewer is always assumed to be at a specific distance from the drawing and subsequent viewers should assume the same position so that objects that have been scaled remain relative in position to the viewer. Perspective drawings often have an implied horizon with a spatial organisation of objects that direct the viewer's eye toward this line. The horizon (and the vanishing or centric point) is used as a point of reference of objects in relation to their subject for the organisation of scale and distance, and is the axis around which everything is constructed. This is evident in Van Eyck's contrast between the earthly and the heavenly by a central division and infinite horizon line. As Samuel Edgerton Junior notes, this perspectival control relied on the crucial discovery of the vanishing point. This is 'the illusion in ordinary vision that the parallel edges of objects stretching away from the eyes seem to be converging at an infinite point on the horizon.'[159] The incorporation of both the horizon and the centric point was thus necessary in the linear perspectival construction of the geometric division of illusional space. Pavel Florensky registered his disapproval of this mode of construction arguing that,

> ... the vanishing point is not the source of representation but its conduit, not the beginning, but the end. The surface perpendicular to the central visual ray is seen as sucked into the endless depth of the Euclidean extension, always constant in its monotonous movement without hold, arrest or obstacle. In receding, the surface rakes over everything it encounters in its path, cleansing the space of any possible reality. The latter seems to rush headlong along the tracks of non-being, along the lines of escape until it reaches the point, i.e., until the fullness and diversity that fill space concentrate in a zero ...[160]

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[158] Jonathan Crary, *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* (Cambridge, MA: MIT Press, 1992), 70; Martin Jay, *Downcast Eyes: The Denigration of Vision in Twentieth-Century French Thought* (Berkeley, Los Angles and London: University of California Press, 1994), 151.

[159] Samuel Edgerton Jr., *The Renaissance Rediscovery of Linear Perspective* (New York: Basic Books, 1975), 25.

[160] Nicolleta Misler, ed, *Pavel Florensky, Beyond Vision – Essays on the Perception of Art,* trans. Wendy Salmond (London: Reaktion Books Ltd, 2002), 92-3.

Fig. 14: Jan van Eyck: The Virgin and Child with Chancellor Rolin, c.1434–5

Adoption of this visual order raises a number of implications. For Jay: 'The abstract coldness of the perspectival gaze meant the withdrawal of the painter's emotional entanglement with the objects depicted in geometricalized space [and] the gap between spectator and spectacle widened.'[161] The presence of the painter and viewer were ignored in favour of the single, disembodied eye. In addition to this apparent removal of the painter's involvement, as Jay argues, it follows then that the space became more interesting than the subjects within it and, consequently, 'the rendering of the scene became an end in itself.'[162] In this reading, the narrative or textual function of the painting became unrelated or disconnected in preference to the visual skills demonstrated by the artist. Cartesian perspectivalism generated a 'mathematically regular spatio-temporal order filled with natural objects that could only be observed from without by the dispassionate eye of the neutral researcher.'[163] The symmetrical balance of linear perspective accounts for the static quality of many western designs, as in Canaletto's *Piazza San Marco* [Fig. 15], where the visual space is restricted and both vertical and horizontal axes are emphasized.

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[161] Martin Jay, "Scopic Regimes of Modernity" in *Vision and Visuality: Discussions in Contemporary Culture*, ed. Hal Foster (Seattle, Washington: Bay Press, 1988), 8.
[162] Ibid., 8.
[163] Ibid., 9.

Fig. 15: Canaletto: Piazza San Marco, late 1720s

Research on perspective combined with my practice has led me to question this Cartesian history of perspective, and the "reality" created by linear perspectival structures. Here "reality" is assumed to mean the actual subjective optical impression.[164] Can the viewer be rendered "dispassionate" by the arrangement of the objects in view? The Van Eyck painting [Fig. 14] is charged with emotion and symbolism. The Virgin, glorified by the Latin words *elevata* and *exaltata*, is symbolized by her position in the painting, raised above the surrounding landscape. Chancellor Rolin sits level with the Virgin, indicating the power of the State in possible conflict with that of the Church. His personal wealth is suggested by the earthly city behind him, beyond which the hillsides are covered with vineyards, possibly referencing Rolin's extensive estates. The landscape, divided by the meandering path of the river, repeats the opposition of the figures of Rolin and the Virgin and Child. The Canaletto painting [Fig. 15] is less emotive but symbolically portrays the wealth of the maritime republic of Venice, a great trading power and a major economic force in Medieval and Renaissance Europe.

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[164] Quantum Physics Theory and classical physics indicate that reality is made of information; meaning in the form of symbolism. Many physicists agree with this and many do not. Physicist John Wheeler says reality is made of information which is created by observation which must be made by something conscious. Information implies meaning is a comparison – the perception of something relative to something else - so meaning is subjective and requires choice, it needs to be perceived by some form of consciousness. Physical reality is constrained by physics or physical laws, immaterial reality is what is not constrained by physics or physical laws like character, the mind or God, for example.

Though these paintings hint at more than an objective and dispassionate encounter with the subject, they still display Cartesian perspectival characteristics and the impression of looking through a window onto the scene, thus creating a distance between the viewer and the subject. What happens when more than one aperture is introduced? Does the viewer become part of the space rather than held at a distance?

Single and multiple viewpoint linear perspectives create different kinds of space that can be seen in the following two depictions of the Last Supper. In Andrea del Castagno's version [Fig. 16] the viewing position is fixed; everything is seen from the same point. Hockney concludes, 'because it is concerned with creating the illusion of depth, not of depicting everything equally, the artist has had to use a frieze-like composition to show each of the figures, otherwise they wouldn't all be visible.'[165] The figures appear to have been painted in order to fit within the space rather than situated naturally around a dinner table, as in Dieric Bouts painting covering the same subject [Fig. 17].

Fig. 16: Andrea del Castagno: Last Supper, 1447-8

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[165] David Hockney, *Secret Knowledge* (London: Thames and Hudson, 2009), 96-97.

Fig. 17: Dieric Bouts: Altarpiece of the Holy Sacrament: Central Panel, The Last Supper, 1464-8

Bouts' version utilizes multiple viewpoint linear perspective, enabling the apparent equal sight of all people and objects in the vision plane. The multiple perspectives are evident where both the chandelier and the faces are seen head on, when you would expect the chandelier to be seen from below. Hockney notes that, 'Bouts has managed to construct the painting so … that [the viewer has the opportunity to accept the] space as a believable unit. The effect, though, is to bring everything (even distance) close to the picture plane.'[166] This use of multiple viewpoints results is a rather unnerving situation for the viewer as I, for one, appear to be floating about two feet above the floor rather than rooted to the ground and still rather detached from this scene. This painting is an unusual mixture of multiple perspectival viewpoints and though they start to draw the viewer closer to the picture plane, the illusion of linear distance is still apparent with the use of the leading orthogonals of mosaic tiles.

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[166] David Hockney, *Secret Knowledge* (London: Thames and Hudson, 2009), 87.

In the *Portinari Triptych* by Hugo van der Goes [Fig. 18], the composition has many different viewpoints where each figure is seen straight on, regardless of where they are positioned within the scene. He also uses differences in scale for the individual subjects. This approach, where size is seemingly arbitrarily imposed, contradicts the geometricalized restrictions of linear perspective, being bound by representational accuracy.

Fig. 18: Hugo van der Goes: Portinari Triptych, 1475-8

The pervasiveness of linear perspective in paintings from the mid fifteenth century onwards suggests most artists were working with single-point linear perspective. This is not the case and there are many examples of artists experimenting with the rules of perspective to suit their purposes. Masaccio's *Holy Trinity with the Virgin and St John the Evangelist and Donors* [Fig. 19] uses two perspectives simultaneously (Giorgio Vasari said Masaccio was particularly skilled at giving a convincing sense of three-dimensionality).[167] Diego Velasquez, Jusepe de Ribera and Francisco de Zubarán painted one perspective for the divine and other perspectives for reality; Paulo Veronese incorporated multiple horizons and viewpoints in *The Wedding Feast at Cana* [Fig. 20] (at least two points of sight, two horizon lines, and two base lines); and the use of reversed perspective is found in Albrecht Dürer's *The Four Apostles* [Fig. 21]. Unhappy, perhaps, with the stultifying effects of single-point perspectivalism or keen to push beyond its limitations, these painters sought a different way of depicting visual space.

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[167] Giorgio Vasari, *Lives of the Painters, Sculptors, and Architects*, trans. Gaston Du C. De Vere (London: Everyman's Library, 1996), 318.
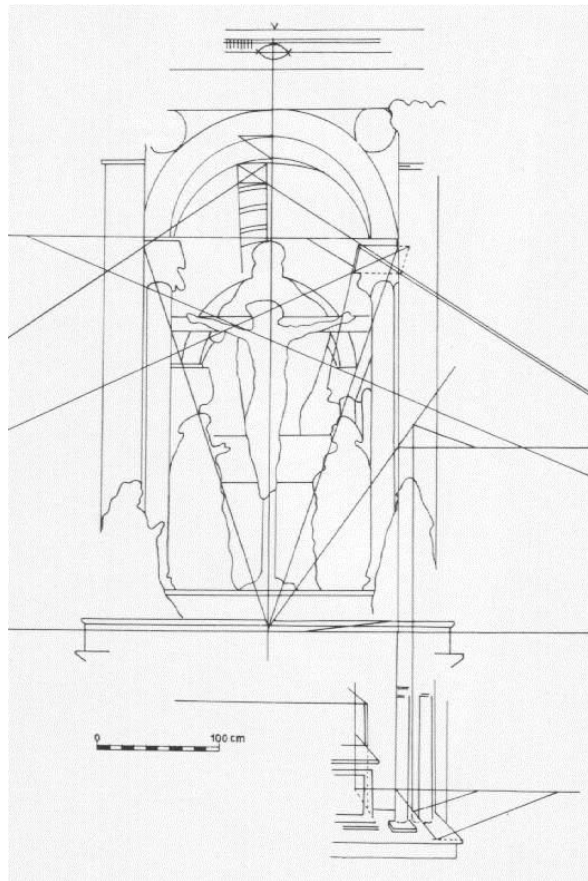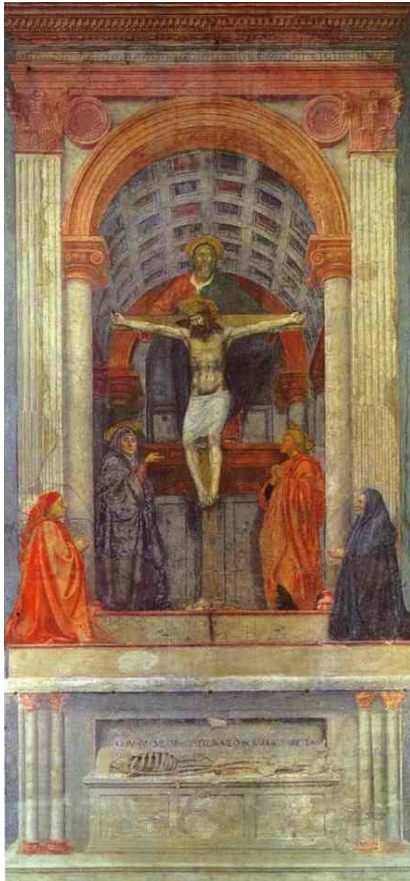
Fig. 19: Masaccio: Holy Trinity with the Virgin and St John the Evangelist and Donors (1426-28), Church of Santa Maria Novella, Florence, Italy, Fresco

Fig. 20: Paulo Veronese: The Wedding Feast at Cana, 1562-63, The Louvre, Paris, France, Oil on canvas

Fig. 21: Albrecht Dürer: The Four Apostles, 1526, Alte Pinakothek, Munich, Germany, Oil on wood panel

Prior to the implementation of single-point linear perspective in fifteenth century Northern Europe, Edgerton, paraphrasing Erwin Panofsky, notes, 'in antiquity, space was understood by artists as a discontinuous residue between objects rather than as something which transcends and unites them.'[168] Edgerton adds, 'Such a conception allows a proper sensation of above, below, ahead, behind, but never of a unified continuum such as today informs us about the relative distance between objects in perspective pictures.'[169]

The pictorial space found in works such as the Hellenistic *Odyssey Landscapes* (195-197) [Fig. 22] is misty and dreamlike with the human figures undefined and impressionistic. Jerome Pollitt comments:

> For the first time in ancient painting the human figure is dominated by, at times almost enveloped and lost in, the immensity of nature. The human body and human activity are presented here not as the sole or primary object of artistic interest … but rather as one facet of a vast cosmos in which atmosphere, misty vistas, the broad horizon of the ocean, rocks, hills, trees, and springs are essential and enduring elements.[170]

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[168] Samuel Y. Edgerton Jr., *The Renaissance Rediscovery of Linear Perspective* (New York: Basic Books, 1975), 158.

[169] Ibid., 158.

[170] Jerome Pollitt, *Art in the Hellenistic Age* (New York: Cambridge University Press, 1996), 185.

The figures are almost consumed by the landscape that dominates them. There is some indication of visual depth but nothing resembling linear perspective, instead the visual planes are flattened and pulled towards the front of the painting. The undefined spaces allow the unfettered passage of the eye to roam freely within them.

Fig. 22: Odyssey landscapes: Panel 3, Attack of the Laestrygonians. (195-197)

The recognized and systematic use of continuous space employing mist, haze and clouds has featured in painting in China since before the fourth century. A moulded tile from the Eastern Han Dynasty (25-220) incorporating the use of undefined voids, indicates an earlier interest in this technique that was later developed in landscape painting [Fig. 23].

Fig. 23: Scenes of Hunting and Harvest, Eastern Han Dynasty, 25-220[171]

In contrast to the distant and disconnected Cartesian viewer, this approach to perspective encouraged the viewer to move into the space, catching the experience of space in time. Richard Whitlock argues that though there was an understanding of perspective, as shown in Ma Lin's *Spring Fragrance – Clearing after Rain* [Fig. 24], contemporary texts indicate this practice was discouraged as 'it was thought [it] created too narrow a viewpoint by fixing the eye in one place and not allowing it to roam around at will.'[172] Michael Sullivan summarises Shen Kuo's criticism of the Five Dynasties painting master Li Ch'eng (919-967) as 'painting the eaves from below' and thereby putting an arbitrary restriction on his power to 'view the part from the angle of totality.'[173] He notes that, 'Chinese landscapes have an air of living nature, of harmony and peace, that is not always to

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[171] Moulded pottery tile from the wall of a tomb in Chengdu showing scenes of hunting and harvest, illustrating 'a happy afterlife where one could catch fish and birds and reap a bounteous harvest forever.' Eastern Han Dynasty, 25–220, Sichuan Provincial Museum, Chengdu.

[172] "Expanded View Photography: The Rejection of Central Perspective in Art,*"* Academia.edu, Last modified June, 2010, accessed June 28 2014, www.academia.edu/5517149/Expanded_view_photography_the_rejection_of_central_perspective_in_art

[173] Shen Kuo (1031-1095) was a Han Dynasty polymathic scientist, mathematician, astronomer and high official, writer of the Dream Pool Essays named after his garden estate property; Michael Sullivan, *An Introduction to Chinese Art* (Berkeley, Los Angles and London: University of California Press, 1961), 143.

be found in the art of other civilizations.'[174] Foucault concurs when he says 'the Chinese culture is the one most deaf to temporal events … [the] most attached to the pure delineation of space.'[175] Their principle of three depths enables the eye to move through nebulous voids of space from one depth (or plane) to another. These undefined voids between the three depths were filled with cloud, mist and light creating an impression of endless space and infinity.[176]

Fig. 24: Ma Lin: Spring Fragrance – Clearing After Rain (between 1195 and 1224) Southern Sung Court

Examples of the use of three depths were not restricted to these earlier times and can be observed in the work of Renaissance painter Hieronymus Bosch in *The Garden of Earthly Delights* (c.1490-1500) [Fig. 25]. It also shows animals (real and imaginary), fruit and flowers much larger than their proper scale, not conforming to the restriction of linear perspective. Staring straight out at the audience and connecting with the viewer are two owls on the two lateral edges of the panel, yet the influence of the Cartesian gaze is obviously apparent, particularly in the middle and far distances of the central panel.

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[174] Michael Sullivan, *Symbols of Eternity: The Art of Landscape Painting in China* (Stanford, California: Stanford University Press, 1979), 1.
[175] Michel Foucault, *The Order of Things* (Abingdon, Oxon: Routledge, 2002), xx.
[176] George Rowley, *Principles of Chinese Painting* (Princeton: Princeton University Press, 1974), 64.

Fig. 25: Hieronymus Bosch: The Garden of Earthly Delights Triptych, c.1490-1500

Late in the Sung Period (960-1279), Ma Yuan (fl. 1172-1214) and Hsia Kuei (fl. 1190-1225) introduced a kind of decentred perspective evidenced in *A Mountain Path in Spring* [Fig. 26]. François Cheng observes, 'By emphasizing a corner of the landscape, they drew the imaginary gaze of the onlooker toward something indefinite and nostalgic, which although apparently invisible, henceforth became the real subject of the work.'[177] The void creates a space for the imagination of the viewer to fill.

Fig. 26: Ma Yuan: A Mountain Path in Spring, between 1190-1225

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[177] François Cheng, *Empty and Full: The Language of Chinese Painting,* rans. Michael H. Kohn (Boston, MA and London: Shambhala Publications Inc, 1994), 12.

Perspective in Photography

The field of landscape photography is vast and different approaches to the landscape are many and varied. Derived from landscape painting largely imported from Italy, English landscape and nature was shaped accordingly and typically found in the works of John Constable and William Gosling. Early photographers like William Henry Fox Talbot and Roger Fenton took their ideas from the paintings they saw to produce natural scenes. Two recognized fields (of many) within landscape photography deal with the political landscape and the experiential landscape of the spiritual, personal and memory. I mention both briefly as an introduction to the practitioners significant to my research.

To situate my practice, I considered the work of other landscape photographers but had to limit the scope of the photographers investigated. I looked at the political stance of landscape photographers Paul Graham (*Troubled Land*, 1984-86), Fay Godwin (*Our Forbidden Land*, 1990), Paul Seawright (*Sectarian Murder*, 1972-73) and John Darwell (*Dark Days*, 2001) but found few photographers that have made the domestic garden their prime subject. I also considered Eugene Atget's documentary style, the Pictorialists' emotive and atmospheric landscapes for their historical context, and Sally Mann, who links to my own practice with the use of historical camera techniques to record the elemental experiences in her personal landscape series *Deep South* (1998) [Fig. 27]. She is an advocate of antique photographic technology and has long used a 10in x 8in bellows camera for her black and white imagery in the landscapes of her homeland in Virginia, USA.

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Fig. 27: Sally Mann: Untitled from Deep South (1998)

Paul Strand, photographing his own garden at Orgeval, France during the last decades before his death, shows a move away from the formality and scale of the familiar tropes of Renaissance perspective.[178] The downward tilt of the camera and lack of vanishing point bring the subjects to the fore, the formality of composition is discarded [Fig. 28].

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[178] Joel Meyerowitz, *The Garden at Orgeval: Selection and Essay by Joel Meyerowitz* (New York: Aperture, 2012).

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Fig. 28: Paul Strand: Columbine, Orgeval, 1974

More pertinent to my practice is the experiential and personal photography of John Blakemore whose found objects in *The Garden: Fragments of a History* (1991) relate both to the present and the past of the garden [Fig. 29].

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Fig. 29: John Blakemore: from The Garden: Fragments of a History, 1991

Blakemore's practice is built around the intimacy found within the sustained exploration of small areas and, for him, the garden is a contained and private

landscape, a space between "nature" and culture. His work is 'based on familiarity [and] on the prolonged and intensive scrutiny of a subject [...] or particular location' and he utilized methods of double exposure as a process of mapping time.[179] While acknowledging these different practitioners of landscape photography, I chose to concentrate specifically on the work of Jem Southam and David Hockney for their methods and notions of time captured within their photographs.

Multiple Viewpoints in Photography

Art practitioners influential to my research and practice consist of painters, photographers and videographers, and include single and multiple viewpoints within their work. Historically, multiple viewpoints have been utilized by many artists/photographers and my research lies within a large field of practice that spans hundreds of years of painting and photography. I consider practitioners who have challenged the conventions of the single viewpoint and reference Oscar Gustave Rejlander (1813-1875) and Camille Silvy (1834-1910) who used multiple negatives to compose a single picture.

By 1857, Rejlander had established the technique of combination printing, uniting several different negatives to create a single final photograph. *Two Ways of Life* (1857) consists of over 30 separate negatives to construct one of the earliest examples of multiple perspective viewpoints presented as a single photograph [Fig. 30]. Two years later Camille Silvy was making photo-collages by combining several negatives, examples of which reside in the National Portrait Gallery, the V&A and MoMA. Mark Haworth-Booth believes Silvy's manipulations 'anticipate[d] the digital age.'[180] His book, *Photographer of Modern Life: Camille Silvy* (2010) was written to accompany a retrospective exhibition of Silvy's work held at The National Portrait Gallery, London in 2010 to mark the centenary of his death. Photographs from circa 1860 show both interior and exterior views through windows clearly evident, a near impossible task if taken with one exposure. In *Studies on Light: Twilight* (1859), Silvy stitched four negatives together to realise his

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[179] John Blakemore, *Photographs 1955-2010* (Stockport: Dewi Lewis Publishing, 2011).
[180] Mark Haworth-Booth, *Photographer of Modern Life: Camille Silvy* (London: The National Portrait Gallery, 2010), 19.

final print; according to Weston Naef: 'One negative was required for the street lamp, another for the foggy background, a third for the architecture at the right, and a fourth for the two standing figures.'[181] [Fig. 31] These methods, innovative for their time, could not bring the lived experience of variable focus into the finished piece as the component parts were taken on the same focal plane.

Fig. 30: Oscar Gustave Rejlander: Two Ways of Life, 1857

Fig. 31: Camille Silvy: Studies on Light: Twilight, 1859

I mention, at this point, the development of the carte-de-visite camera (patented in 1854 by André-Adolphe-Eugène Disdéri). It made multiple pictures with four Petzval portrait lenses producing eight images on a single wet collodion plate and, although an innovation in camera design, the resultant photographs were still restricted to the perspectivalism of the single lens [Fig. 32]. The design of my multi-aperture pinhole camera, however, allows a greater degree of freedom to respond to the landscape as the eye moves from one point of interest to another, finding and focusing at differing distances and from different points of view.

Fig. 32: André-Adolphe-Eugène Disdéri, Duc de Coimbra (ca 1860) Uncut Carte-de-Visite sheet

I also considered the working practices of Jules Etienne Marey (1830-1904) and Eadweard Muybridge (also 1830-1904), but their notions, contrary to Rejlander and Silvy who constructed photographs from multiple negatives, involved photographing the deconstruction of movement, breaking it down into constituent parts. David Campany stated that 'both pursued instantaneous arrest, the decomposition of movement, [rather than] its re-composition.'[182] Marey's multiple exposures blended the instants whereas Muybridge's frames separated them, and though these techniques are not pertinent to my picture making, they show a move away from conventional ways of making photographs to reveal the invisible and abstract experience of time. They had to create and adapt tools for their purposes of breaking movement down into its component parts. This references the necessity of building a pinhole camera to suit my own investigation.

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[182] David Campany, *Photography and Cinema* (London: Reaktion Books Ltd, 2008), 22.

Muybridge's practice straddled two competing ideologies of representation; the 'classical pre-modern model of what a landscape should be [...] enshrined in the single-point pictorial perspective that had defined painting since the Renaissance' (evident in his photographs of Yosemite Valley in the 1860s), and a way of depicting instantaneous, sequential views of motion that, when assembled together, would become the forerunner of the moving picture (as in *Attitudes of Animals in Motion* (1881) and *Animal Locomotion* (1887)).[183] A retrospective exhibition of his work at Tate Britain, London in 2010-11 showed how he constructed, manipulated and presented these photographs, the carefully managed studio photographs contrasting with his panoramic landscapes of America. Breaking down movement into its elemental parts enabled the viewer to see the mechanics behind it [Fig. 33].

Marey's approach differed to that of Muybridge. He was not a photographer, but his interest in the physiology of the human body and the analysis of the laws that governed its movement marshalled him towards the latest technologies of sequential photography. Mary Ann Doane writes that he was 'more directly concerned with the representation of time as it is incarnated in physical movement' and that his 'work is undergirded by an investment in time as continuum … despite his later embrace of the intermittent method of chronophotography.'[184] In 1859, he succeeded in analyzing the walk of man and horse and the flight of insects and birds. The results, published in *La Machine Animale* (1873), led to contact with Muybridge who was pursuing his own photographic research into movement. Marey admired Muybridge's results but felt the movements had been broken into separate frames rather than continuous data recordings, moments rather than movement. Using a rotating photographic glass plate, Marey introduced his "photographic gun", which took twelve consecutive pictures per second [Fig. 34]. The resulting photographs were the size of postage stamps and difficult to distinguish. Frequent technical difficulties with the device drove Marey to develop the chronophotographic fixed plate camera with a timed shutter. Later, he improved his device and succeeded in combining several 'successive images of a single movement on a single plate' [Fig. 35].[185]

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[183] Andy Grundberg, "Introduction," in Philip Brookman, *Eadweard Muybridge* (London: Tate Publishing, 2010), 9.
[184] Mary A. Doane, *The Emergence of Cinematic Time: Modernity, Contingency, The Archive* (Cambridge, Massachusetts and London: Harvard University Press, 2002), 35.
[185] François Dagognet, *Etienne-Jules Marey: A Passion for the Trace*, trans. Robert Galeta with Jeanine Herman (New York: Zone Books, 1992).

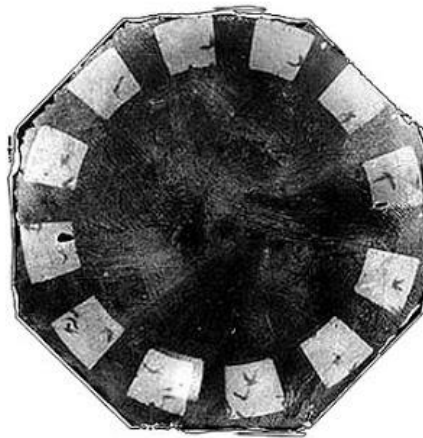*Fig. 33: Eadweard Muybridge: The Horse in Motion. Automatic Electro-Photograph, 1878*

Fig. 34: Etienne-Jules Marey, Plate, Fusil Photographique, circa 1882

Fig. 35: Etienne-Jules Marey: The Flight of the Pelican, 1886

Marey was not interested in merely reproducing what the eye could see; he sought that which could not be recorded by the single snapshot, what was invisible to the eye. None of these methods offered a line of enquiry I wished to take (though their methods of photographic construction have been important in my understanding of photographic deconstruction and reconstruction) other than an acknowledgement and appreciation of movement captured in space and time within Marey's single photographs.

Conversely, artist David Hockney and photographer/filmmaker Richard Whitlock were of interest in providing contemporary examples of pictures created from multiple photographs or computer rendered composites that do not adhere to the conventions of linear perspective. Hockney sought to produce work that uses more than a single viewpoint. For him, the taking of one photograph produces an instant so it therefore 'cannot represent time or narrative.'[186] Hockney's experimentation with joiners between 1982 and 1987 is of particular interest where putting two or more photographs together appears to alter perspective. The first isometric picture he made was *Walking in the Zen Garden, Ryoanji Temple, Kyoto* in 1983 [Fig. 36].[187]

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Fig. 36: David Hockney: Walking in the Zen Garden, Ryoanji Temple, Kyoto, 1983, Photographic collage

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[186] "David Hockney's Joiners," 5election, Last modified 2010, accessed 1.5.14, http://www.5election.com/2010/09/05/david-hockneys-joiners/
[187] Isometric means there is no single vanishing point. The use of isometric perspective is found in many Japanese and Chinese pictures and, unlike linear perspective, which pushes the viewer away by automatically placing the viewer outside the picture, isometric perspective draws the viewer into the picture.

Moving around the area and taking a series of photographs from different positions, which were then reconfigured together, resulted in a composite image without (apparent) linear perspective, whereas a single photograph of the same space would show the garden triangular in shape with a focal point at some point in the distance. He said: 'I realized that this sort of picture [comes] closer to how we actually see […] not all-at-once but rather in discrete, separate glimpses which we then build up into our continuous experience of the world.'[188]

The differences between single and multiple viewpoints are evident when Hockney's joiner *Merced River, Yosemite Valley* (1982) [Fig. 38] is compared to Muybridge's photograph taken in Yosemite in 1897 [Fig. 37]. Using this technique, and borrowing ideas from Cubist painting, he produced 'a panoramic assault on Renaissance one-point perspective.'[189] Hockney felt that: 'Cubism was total-vision: it was about two eyes and the way we see things. Photography had the flaw of being one-eyed.'[190] Cubism questioned basic relationships between what was seen and what was represented and challenged the canon of naturalism in Western art that had prevailed for many centuries.[191] For Jean Metzinger, Cubism 'invented a free and mobile perspective [and] form.'[192] This freedom possibly refers to the release of the head encased and strapped into the camera obscura used as part of the perspective drawing technique. By moving the head and hence the viewpoint, Georges Braque and Pablo Picasso were showing these different perspectives and movement in their paintings, and though Cézanne was not a Cubist, he released the idea of the view being a fixed point perspective, thus acknowledging the conceptual development of the modern. Although a free and mobile perspective, Cubism or the modernist approach to painting will not be considered further in this research.

[188] "Cubism, Joiners and The Multiple Viewpoint," The Delights of Seeing, accessed 1.5.14, http://thedelightsofseeing.blogspot.co.uk/2011/03/cubism-joiners-and-multiple-viewpoint.html
[189] "David Hockney's Joiners," 5election, Last modified 2010, accessed 1.5.14, http://www.5election.com/2010/09/05/david-hockneys-joiners/
[190] Skelly01, "His Relation to Cubism," *David Hockney*, January, 2010, accessed 10.5.14, url: http://skelly01.wordpress.com/his-relation-to-cubism/
[191] "Pablo Picasso and his Cubism Revolution," Weebly.com, accessed August 25, 2017, url: http://70898935.weebly.com/martin-kemp.html
[192] Jean Metzinger, "Cubism," in *Theories of Modern Art: A Source Book by Artists and Critics,* ed. Herschell B. Chipp (Berkeley, Los Angeles and London: University of California Press, 1968), 196.

Fig. 37: Eadweard Muybridge: Yosemite Valley, California, 1867

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Fig. 38: David Hockney: Merced River, Yosemite Valley, 1982

Contemporary photographer and filmmaker Richard Whitlock also uses multiple viewpoints by remodelling photographic space to remove perspective, replacing it with an orthogonal parallel projection. The following photographs were taken in the Basement Gallery at Thessaloniki. The first one was taken with normal photographic perspective [Fig. 39]. The second one is made up of several photographs that were then reconstructed in Photoshop in a parallel projection so that the eye is positioned 'opposite every point on the [image surface] instead of [...] opposite the vanishing point.'[193] [Fig. 40] He believes removing perspective 'explodes the viewing habits that perspective has established and reinforced for so long' and enables the viewer to choose their own point of view.[194] Whitlock's experimentation provides the impetus for me to seek a visual space that brings the lived experience into the space rather than the rather sterile environments that his methods offer.

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Fig. 39: Richard Whitlock: Basement Gallery at Thessaloniki (n.d.)

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[193] Richard Whitlock, "Non-Perspectival Photography: Towards a Post-Digital Visuality," *in Proceedings of the Second International Photography Research Conference, Aalto University, Helsinki, Finland, March 26-28, 2014* (Helsinki: Photomedia, 2014).
[194] Ibid.

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Fig. 40: Richard Whitlock: Basement Gallery in Thessaloniki with photograph adjusted to orthogonal parallel projection (n.d.)

There are many amateur and professional pinhole photographers with examples of their work on the Internet. Most of these photographers appear to utilize the single pinhole, though there are examples of experimentation with triple pinholes, 360° hexagonal pinhole cameras (Jan Kapoor) [Fig. 41] and curved film planes (Steve Irvine) [Fig. 42].

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Fig. 41: Jan Kapoor: From Urban Landscape Series, n.d.

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Fig. 42: Steve Irvine: In Ruins, 2011 (5-minute exposure with a multi-aperture camera)

Kate Mellor, Adam Fuss and Martha Casanave are photographic artists who have used the single pinhole camera in their work, and although their practices are relevant to my own, using a single pinhole is not where my interest lies. Practitioners using multiple pinhole cameras are uncommon but I consider Eric Renner (*Dale Gottlieb*, 19-hole pinhole camera, 1971), who has adapted the technology for its creative effect [Fig. 43], and Paolo Gioli (*Novantasei Fori Forati*, 1980) [Fig. 44] who has used many diverse objects such as ladles, graters, buttons and ant holes to create his multiple viewpoint photographs.

The *Poetics of Light* exhibition at the National Science and Media Museum in Bradford (2017) offered insight into photographers creating multiple pinhole cameras in innovative ways: Denis Bernard's Machine camera with 142 pinhole points of view contained within a sphere, pinhole clock cameras using a rotating plate and the Ableson Hexomniscope, a six-hole camera designed by Matt Abelson in 2004.[195] Though these practitioners use multiple pinholes, their photographs are based on one-point linear perspective where the view is fixed in one direction and consist of collections of individual miniature photographs printed onto a single sheet, using a fixed focal plane. This type of image construction is not pertinent to my research but provides an area in which to situate my practice.

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[195] Poetics of Light Pinhole Photography exhibition, 17 March – 25 June 2017, National Science and Media Museum, Bradford, UK.

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Fig. 43: Eric Renner: Dale Gottlieb, 1971, 19-hole pinhole camera

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Fig. 44: Paolo Gioli: Novantasei Fori Forati, 1980, 5 in. square pinhole photograph

Using multiple viewpoints in my work touches upon the edges of time based media and I consider the work of filmmakers Kurt Kren and Richard Whitlock. Avant-garde filmmaker, Kurt Kren, uses multiple viewpoints in the film *31/75: Asyl* (1975) [Fig. 45]. This film consists of a single angle taken so that time and space overlap within a single frame and coexist to create an impossible landscape. Over twenty-one days Kren fed the same three strips of film stock through the camera to capture pictures, which were filtered through a black mask containing a variable number of holes. These temporally oriented visions are a fundamental part of his methodology and he has, with multi-layered viewpoints, reconfigured film as a medium in which time and space cease to be linear.[196] His use of multiple viewing apertures is particularly significant to my research where I utilize multiple pinhole apertures in my pinhole camera though, again, the focal plane is static.

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Fig. 45: Kurt Kren: 31/75: Asyl, 1975, 8 min 16mm film

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[196] Andreas Fraunberger, "Three Austrian Filmmakers. A psychoanalytic view on works of Kurt Kren, Peter Tscherkassky and Martin Arnold," PSYART: A Hyperlink Journal for the Psychological Study of the Arts, (December 31, 2008), accessed November 9, 2013, url: http://psyartjournal.com/article/show/fraunberger-three_austrian_filmmakers_a_psychoanalyt

Whitlock's video, *The Street*, [Fig. 46] was filmed over a period of three years (2009-2012) and is a seamless composite of many photographs and videos.[197] In it the perspective of the camera lens is replaced by an orthogonal parallel projection so that it seems the viewer is positioned in many places at the same time. In an interview with Gregory Sholette for *Afterimage Online* in 2013, Whitlock explains he 'wanted to see whether it was possible to modify the perspective of a moving, cinematographic picture.'[198] The finished work appears to record incidents occurring simultaneously but is, in fact, made up of many videos taken at different times resulting in the elimination of clock time as well as linear space.

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Fig. 46: Richard Whitlock: The Street, Still from HD video projection, 2009-2012

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[197] *The Street* by Richard Whitlock, (2009-2012) can be viewed on *vimeo*.*com/70762494*

[198] Gregory Sholette, *The Street by Richard Whitlock*. Afterimage Online, accessed June 28, 2014, url: http://vsw.org/afterimage/2013/11/07/video-and-interview-i-richard-whitlocks-the-street/

Kren, Whitlock and Hockney straddle the line between aspects of time and the reordering of space in both film and photography and are apposite for their challenges to the Renaissance model of linear perspective and their use of varied perspectives made over a period of time, produced within a single photograph.

Another important influence has been the multiple perspectives employed by Chinese and Japanese artists over the centuries. For George Rowley, 'the abstract quality of Chinese design arose from simplification and elimination rather than from mechanization or distortion of forms.'[199] While European art was being shaped by Christianity and the Hellenic tradition, the dominating doctrines of Confucianism, Taoism and Buddhism 'determined the cultural climate in which Chinese painting flourished.'[200] These orientations have passed through various stages of evolution throughout successive historic periods. For the purposes of this research, the period of Chinese painting history of interest is drawn from the Chin dynasty (265-420) to the Qing dynasty (1644-1911). The parameters for this research begin with Gu Kaizhi (c.345-c.406) (acknowledged to be the first great painter known by name in the history of Chinese art) and end with Wu Li (1632-1718), one of the Six Masters of the early Qing period.[201]

By emphasizing differing aspects of the same objects and providing no single fixed focal point, my photographs are decentred and lack the rigid structure of linear perspective. They show objects positioned in front of the camera in such a way as if the viewer has moved both physically (the body) and visually (the eye) during the time of observation and film exposure. The single lens of a standard SLR camera does not incorporate the action of seeing and moving within the photograph. My pinhole camera offered this possibility, utilizing several pinhole apertures to provide multiple viewpoints with an ability to change the focal length during exposure. The camera, being an extension of my body, was directed by my personal preferences towards the elements I wanted to look at and adjusted to accommodate the different focal depths. Though fixed onto a static tripod, the camera was moved fluidly and for varying durations.

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[199] George Rowley, *Principles of Chinese Painting* (Princeton: Princeton University Press, 1974), ix.
[200] Ibid., 4.
[201] François Cheng, *Empty and Full: The Language of Chinese Painting*, trans. Michael H. Kohn (Boston, MA and London: Shambhala Publications, 1994), 4.

Photograph No 77 [Fig. 47] was created using seven pinholes (a mixture of 0.5mm and 0.3mm hole diameters) and, consequently, seven different viewpoints of the elements in front of the camera have registered. The ten-minute exposure time accounts for the blurred movement of the grasses and plants and the light waves, moving in complex patterns, have created a photograph that differs greatly from that obtained from a single lens camera. The subject is recognizable but brings other experiences to bear that include movement, perceptual awareness and the experience of the body being in the space and therefore part of the photograph. The same motif is seen at various points providing different viewpoints, and therefore different experiences, of elements within the space. The glimpsed wall remains a constant backdrop, an anchor, grounded, against which the plants are arrayed. During exposure I move around the garden space, weeding or picking apples, sometimes crossing in front of the camera face so I become part of the blur, part of the photograph, part of the organic process. I am capturing multiple viewpoints in the one photograph but does that allow me to move visually *into* the photograph – as if I were walking into the garden rather than looking at it from a distance? The multiple viewpoints appear to flatten the focal planes and the illusion of linear perspective is reduced or dispensed with altogether. The garden comes to meet me.

Fig. 47: Meanwhile/Becoming - Photograph No. 77 – 2 Tears, 7 apertures (20 August 2013)

The SLR camera employs one lens within the camera body and this single fixed viewpoint produces a photograph with the characteristics of linear perspective, centring everything on the eye of the beholder. Seeing in single point perspective through the lens of a camera is an artifice. Descartes' window is a representation, a "reality" constructed through reason. It cannot acknowledge our proprioceptive awareness of being in a space, represent the saccadic eye movements that occur when exploring the visual panorama or produce a photograph that incorporates experience of being in the world. Deconstruction of this linear space can open up the space to reinterpretation and the recognition of the existence of different and multiple "trajectories" momentarily existing within that space.

Linear perspectival paintings followed the spatial relationships of objects in a scene as they would appear from a single viewpoint. Traditional Chinese artists produced a multi-perspective rendering combining what is seen from several viewpoints into a single painting, yet still preserving spatial coherence and allowing details to be seen that would otherwise be inaccessible from a single viewpoint.[202] Influenced by the Renaissance concept of linear perspective, George Rowley believes it has been difficult to understand the Chinese artists' use of 'moving focus and unbounded space' because of a reliance on 'axial balance and geometrical schemes for surface unity.'[203] The ideal for painters employing the Cartesian gaze was to look for perfection and in so doing almost remove the subject from nature while the Chinese forms, though more abstract, were rhythmically and spiritually closer to nature.

Fig. 48 is a drawing taken from a Japanese album page. It shows the artist has not remained at a single or fixed point but has moved around the space and taken in many viewpoints. As a result, you are as close to the table at the top of the scene as to any other point in the scene. It shows what happens when different perspectives are incorporated into a single image.

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[202] Leonard McMillan and Jingyi Yu, "A Framework for Multiperspective Rendering," in *Eurographics Symposium on Rendering,* eds. H.W. Jensen and A. Keller (2004), accessed January 12, 2013, https://pdfs.semanticscholar.org/b353/5b1efbf114dba479d82211ed40ec034d6bff.pdf
[203] George Rowley, *Principles of Chinese Painting* (Princeton: Princeton University Press, 1974), 68.

*Fig. 48: Japanese artist and date unknown, The Monk Fa Kong assists Zhang on a secret meeting.
Illustration from Xi Xiang Ji's The Story of the Western Wing*

Something similar happens in my photograph No. 43 [Fig. 49]. The use of
numerous pinholes and variable changes in focal plane create a number of different
viewpoints that cause the eyes of the viewer to scan the picture. Changing the point
of view and the focal plane as if you were physically moving around the garden
helps to make sense of the visual space and orients Merleau-Ponty's concept of the
body being in the world. By moving the focal plane of the camera during exposure,
the individual elements seem nearer or further away from the viewer but without
the illusion and limitation of linear perspective. All the elements within the
photograph appear to emerge from the surface towards the viewer rather than
retreating away from the viewer. The blurring is particular to my work and relates
to the time and movement in the process of making. It also makes reference to the
deterritorialisation of the space, the removal of boundaries, the freedom of
movement for the eye to roam at will. Here the set laws of linear perspective have
been challenged and/or removed altogether. Instead of gazing into the distance,
separated from the experience of being in the garden, the viewer is visually and
metaphorically encouraged to step into this newly created visual space.

Fig. 49: Meanwhile/Becoming - Photograph No. 43 – 4 Tears, 2 Apertures (5 April 2013)

Space between objects is paramount in Chinese painting. Cohesion in paintings utilizing linear perspective depends on an enclosed spatial setting, whereas individual objects in Chinese painting rely on subtle spacing that has been divided and combined. Linear perspective attempts to tie forms together whereas in Chou Fang's painting, *Palace Ladies Tuning the Lute* [Fig. 50], he highlights the spaces between. Objects or figures seem unconnected and Rowley states that, 'isolation meant that the forms must be related mentally rather than visually' even though they seem to be floating across an empty space. The shallow ground plane of silk or paper means that figures or objects exist in a lateral plane making it difficult to judge depth without the use of perspective.[204]

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[204] George Rowley, *Principles of Chinese Painting* (Princeton: Princeton University Press, 1974), 56-57.

Fig. 50: Artist unknown, after Zhou Fang (730-800), Palace Ladies Tuning the Lute

When testing my own work for scale, *Meanwhile/Becoming*, (Figs. 51 and 52), I have been interested in considering the spaces between the elements, precisely to dissolve a sense of what a normative perspective might be. Space within the Cartesian perspective is controlled and directs the eye towards a particular point. The spaces between the repeated elements in my photographs are not constrained in this way and so present a different aspect of the photographed landscape where the "shackles" are loosened or removed altogether.
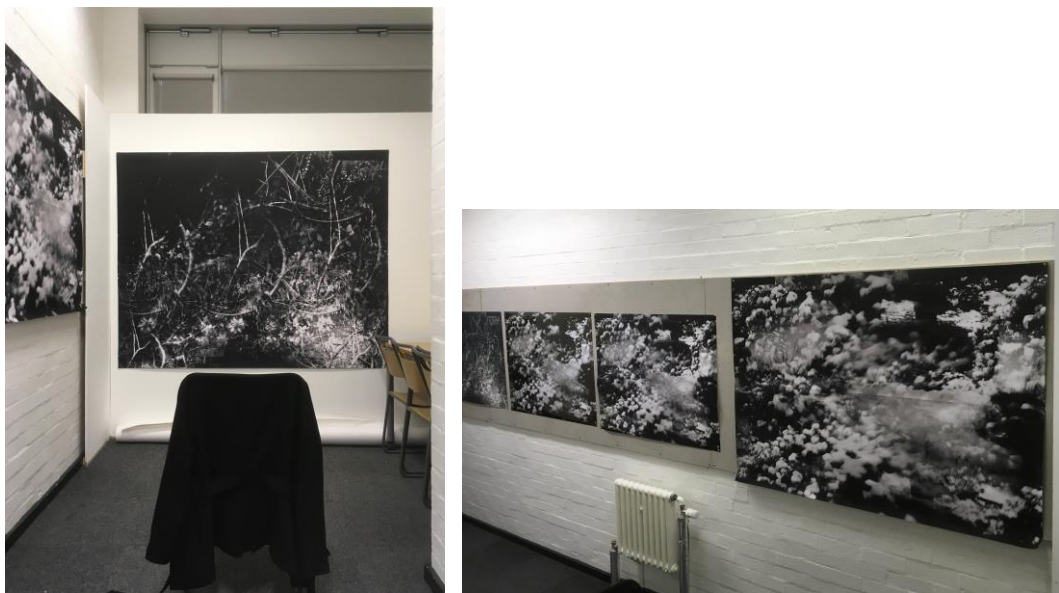
Figs. 51 and 52: Jan Fyfe: Interim Testing Installation of Meanwhile/Becoming Photographs, 2016

Rowley notes that: 'Chinese artists were not seeking perfect beauty or a proportional norm, they were striving for an inner reality ...'[205] They chose

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[205] George Rowley, *Principles of Chinese Painting* (Princeton: Princeton University Press, 1974), 40.

temporal coherence and harmony and omitted anything other than important elements so all incidental qualities were removed until the essence of the subject remained. Chiang Yee said painting needed no call for elaborate technique, but to '[p]aint the "bones" […] small details are unnecessary. Space is left around the "bones" for the spectator to add his own flesh and clothing […]'[206]

The artistic traditions of Chinese painting emphasize an economy of expression to introduce a state of awareness. Exiled from China, Chiang Yee sketched and painted the English Lake District during the 1930s in his own style. In the foreword to Yee's book, *The Silent Traveller in Lakeland*, Da Zheng states that, 'colour, light and even form are considered transient and thus unimportant in Chinese painting, so their representation often appears unrealistic.'[207] Yee confirms: 'Our style of painting … does not impose stringent law on representation.'[208] Fig. 53 indicates the unknown painter was searching for something other than representation, looking for the "soul" or *chi*, the rhythmic vitality of the landscape. Working in black and white takes me away from pure representation and provides a utopic space to permit fable and discourse; for Foucault, 'a fantastic, untroubled region in which they are able to unfold …'[209]

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206 Chiang Yee, *The Chinese Eye: An Interpretation of Chinese Painting* (London: Methuen, 1935), 99.
207 Da Zheng, "Foreword," in *The Silent Traveller in Lakeland* (Edinburgh: Mercat Press, 2004), xviii.
208 Chiang Yee, *The Silent Traveller in Lakeland* (Edinburgh: Mercat Press, 2004), 13.
209 Michel Foucault, *The Order of Things* (Abingdon, Oxon: Routledge, 2002), xix.
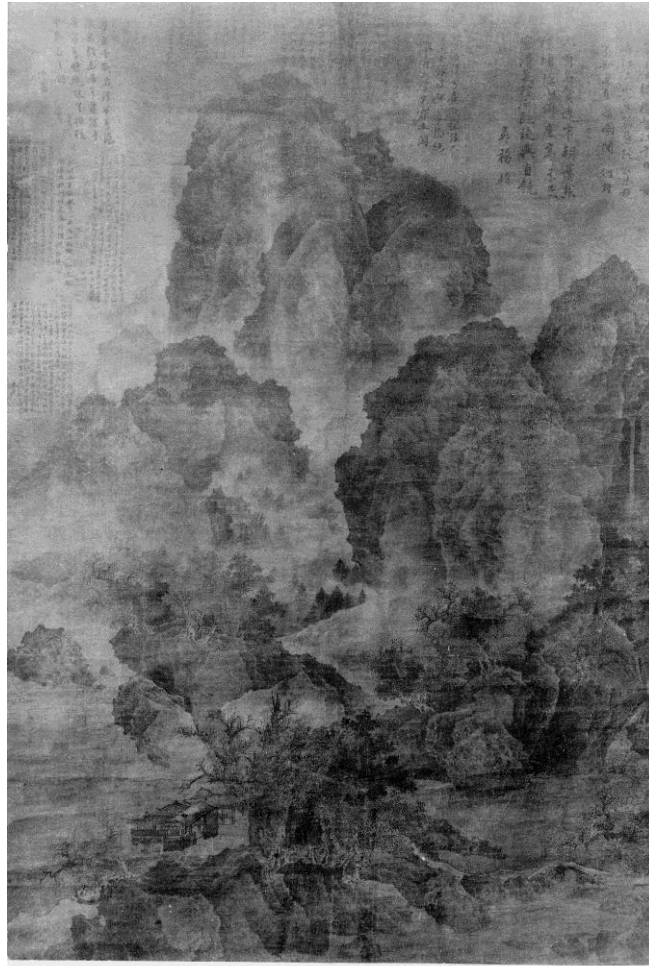
Fig. 53: Artist Unknown, The Solitary House by the River, *Possibly early 12ᵗʰ century*

In my photograph No. 70 [Fig. 54] the sculpture motif floats within a black void, grounded only on one side, the line of vision cut through by the extreme edge of the photographic paper. Light plays on three different viewpoints of the same object nestled among the foliage. Light is drawn into forms from the dark shadows, deep and mysterious, and, once attained, the forms carry their own individual significance. Subtle variations within the deep blacks are contained and harmonized in the synthesis of the whole and create a contrast with the whites and greys. Dark space embraces the "bones" of the statuette and waits for the imagination of the viewer to interrogate it and become drawn into the space.

Fig. 54: Meanwhile/Becoming - Photograph No. 70 – 2 Tears, 3 Apertures (4 August 2013)

A major influence on constructing a different visual space in my photographs was gained from looking at specific examples of Chinese and Japanese paintings and drawings where the creation of forms was not merely representational. The paintings were also one of several factors that influenced my decision to photograph in black and white instead of using colour film or photographic paper. First, I wanted to reference the historical and cultural mode of picture making in traditional Chinese landscape paintings where, among other things, colour is used sparingly or not at all. Light (and therefore colour) is considered transient and unimportant in Chinese art so is used very rarely. Maxwell Hearn affirms that the use of colour was found to be a distraction,

> … the aim of the traditional Chinese painter [is] to capture not only the outer appearance of a subject but its inner essence as well – its energy, life force, spirit, [ch'i]. To accomplish his goal, the Chinese painter more often than not rejected the use of color.[210]

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[210] Maxwell K. Hearn, *How to Read Chinese Paintings* (New York: The Metropolitan Museum of Art, 2008), 3.

Gaston Bachelard alludes to this in *The Poetics of Space* when he says: 'Over-picturesqueness in a house can conceal its intimacy,' which suggests something that is not so colourful can be more intimate.[211] Second, my photographs are not representations of what is seen and so colour, which plays an integral part in the representation of things, is regarded as unnecessary. Black and white photography transforms a photograph into a realm that isn't abstraction, but isn't reality either. For Mauro Carbone, the black and white photograph, 'appears as a texture of differentiations, in which the visible is always interweaved with an invisible that is indirectly shown by the visible itself.'[212] Hiroshi Sugimoto believes that colour photography is artificial, that black and white, 'gives people a more realistic impression. They can project their own image of colour into the black and white [...] and activate their own imaginations' thus creating a space for the viewer to bring their knowledge through their own experience of the world.[213] A black and white photograph deconstructs a scene and allows me to separate light, form and tone; colour is recast as subtle shades of grey.

Black and white is also a medium that adapts well to all lighting situations, which is important when considering the variable weather and lighting conditions I encounter. Colour is susceptible to light and is capable of changing depending upon the quality of available light. 'Colour is a perception, a response of the brain to data received by human visual systems,' so colour is always in the eye of the beholder.[214] Using black and white, in this instance, provides a more impartial base on which to situate the imagination and experience of the individual. In these senses, black and white is about a black and white *Lebenswelt* (where everyone will experience the photographs from this more impartial base), which was one aspect of the phenomenological investigation of vision.

Phenomenological Perspective

The development of Merleau-Ponty's understanding of phenomenology was deeply influenced by Husserl, whose conceptions are identified in *Crisis of the*

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[211] Gaston Bachelard, *The Poetics of Space*, trans. Maria Jolas (Boston, MA: Beacon Press, 1994), 12.
[212] Mauro Carbone, *The Flesh of Images: Merleau-Ponty Between Painting and Cinema*, trans. Marta Nijhuis (Albany: State University of New York Press, 2015), 1.
[213] Thomas Kellein, *Hiroshi Sugimoto: Time Exposed* (London: Thames and Hudson, 1995), 89-90.
[214] "Colour Theory," Causes of Colour, accessed May 2, 2016, www.webexhibits.org/causesofcolor/1B.html

European Sciences and Transcendental Phenomenology and *Cartesian Meditations: An Introduction to Phenomenology*.[215] Husserl's philosophy indicates a distancing from the Cartesian point of view through the notion of movement, towards a consciousness that was embodied and historically situated.[216]

It could be argued that notions of phenomenology emphasize the uniqueness of the individual's experiences but this precludes the experiences of others being acknowledged. Komarine Romdenh-Romluc maintains that perception is perspectival, '[…] it presents the world from a particular point of view in space. The perceiver experiences themselves as located at the place from which they see.'[217] The things I experience in the world may be capable of being experienced by others, but that which I perceive is always from my perspective and others will not perceive things in the same way. Experience of the world around me may provide me with knowledge of the world but this presupposes that the world I experience, and am confronted with, actually exists. We cannot separate ourselves from our perceptions of the world. Every conscious act is guided by that knowledge of experience that comes from our perceptions of the world we live in. Consciousness comprises sensing and reasoning, sensation and interpretation. The world, then, is more than experience. Berger observes: 'The world-as-it-is is more than pure objective fact, it includes consciousness.'[218]

In the Cartesian perspective, the body is an object that is part of the external world. Husserl, through phenomenology, recognizes that the experience of his body is different from his experience of other objects and determines, 'that his own body is not presented as an object, but as a living conscious being which is not separate from his mind.'[219] Merleau-Ponty sees this as a move away from the Cartesian approach towards the idea that consciousness is fundamentally embodied.

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[215] Edmund Husserl, *Crisis of the European Sciences and Transcendental Phenomenology*, trans. David Carr (Evanston, IL: Northwestern University Press, 1970); Edmund Husserl, *Cartesian Meditations: An Introduction to Phenomenology*, trans. Dorion Cairns (Dordrecht: Kluwer, 1988).
[216] Komarine Romdenh-Romluc, *Routledge Philosophy Guidebook to Merleau-Ponty and Phenomenology of Perception* (Abingdon, Oxon and New York: Routledge, 2011), 13.
[217] Ibid., 10.
[218] John Berger, *Ways of Seeing* (London: Penguin Books Ltd, 1977), 11.
[219] Komarine Romdenh-Romluc, *Routledge Philosophy Guidebook to Merleau-Ponty and Phenomenology of Perception* (Abingdon, Oxon and New York: Routledge, 2011), 10-11.

In my garden, I not only experience the sensations (sights, sounds and smells) within the space, I also have an awareness, a proprioceptiveness, a consciousness, of the time of day, the season, the temperature, the space, what the weather will do, what will grow and how it will grow; innate knowledge held within my mind and part of my consciousness. This knowledge is part of the process of my picture making where decisions are made depending upon the conditions at the time of making.

Perspective, in its many guises, appears to have the ability to reorder space and time in the eyes of the viewer. Changing the perspectival conditions under which an image is created offers up other ways of viewing and experiencing visual space. The following chapter discusses *Meanwhile* as the timespace (or interval) between events, exploring concepts of space and time in landscape photography where creativity occurs and develops within the photographic image.

Chapter 2 - Meanwhile

Fig. 55: Meanwhile/Becoming - Photograph No. 78 – 3 Tears, 7 Apertures (20 August 2013)

<u>*20th August 2013*</u>

It's a lovely day today with probably too much sun as it comes and goes behind the clouds. There isn't much cloud cover at all and the air is very still. This is quite an exciting day for me. Over the weekend we drilled four more holes into the camera so now I have seven in total, all with individual shutters. The problem now is that I have no idea about exposure lengths. My first photographs will be purely experimental again as I'm almost starting from scratch.

Outside the window the grass lies covered in a myriad of leaves, their swan-song a burst of glorious colour before they are subsumed into the earth whence they came. The skeletal structures of honeysuckle and clematis adorn the walls that contain, bind and delineate the garden, revealing their basic forms once more in the chill winds of a late autumnal day. If a photograph is taken of this space what does it show – a slice through the flow of time, a moment carefully chosen from a temporality or will it show a phenomenology of the photograph in the way it is experienced?

Using the Deleuzian notion of *meanwhile* as a "timespace" where change occurs, this chapter explores the phenomenological position of my body's centrality within the studio garden at the time of image-making. While acknowledging visual and corporeal movements and the perceptual awareness of the body in the image-making process, the chapter also discusses the agency and affect of nonhuman elements within the studio garden and the vitality and vibrancy of matter. Henri Bergson and Doreen Massey's ideas on time and space are explored in terms of a dynamic simultaneity, where space is the dimension of open-ended multiple durations. The chapter acknowledges that the effect of conditioning by fifteenth century Northern European principles of linear perspective on painting and photography is complicated/problematized when considering the physiology and phenomenology of seeing and the theories of temporality since developed.[220] These concepts of space and time are explored in landscape photography as they appear in my photographic practice.

Meanwhile, in Deleuzian terms, belongs to becoming and is a virtual existence where 'virtual … is real without being actual, ideal without being abstract.'[221] For me it suggests a temporary state and within that state is temporality: a movement (duration) between events that have happened or are about to happen (an *entre-temps*). In this wait between events, a vast and empty meanwhile opens up and within this interval there is becoming.[222] Meanwhile is the timespace where creativity occurs (through movement), where things change and where becoming becomes.

Aion encompasses the time that has passed and an everlasting future where the present has no presence. In *The Logic of Sense* Deleuze explains:

> In accordance with Aion, only the past and future inhere or subsist in time. Instead of a present which absorbs the past and future, a future and past

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[220] Beyond the scope of this chapter, but this line of thinking might also consider quantum theories of light. See also *Light Art from Artificial Light: Light as a Medium in 20th and 21st Century Art*, eds. Peter Weibel and Gregor Jansen (Berlin: Hatje Cantz, 2006).

[221] Gilles Deleuze and Félix Guattari, *What is Philosophy?* trans. Graham Burchell and Hugh Tomlinson (London and New York, Verso, 2013), 156.

[222] Yve Lomax, "Thinking Stillness," in *Stillness and Time: Photography and the Moving Image*, eds. David Green and Joanna Lomax (Brighton: Photoworks, 2006), 59.

divide the present at every instant and subdivide it ad infinitum into past and future, in both directions at once.[223]

A destabilized present is released from its static location within (linear) time. The *becoming* of the event is freed from the living present. This escape from historical time, for Yve Lomax (referencing Deleuze), is the meanwhile that belongs, not to 'a becoming that is a journey to a state of being: [but rather to] becoming in itself; … becoming in its "pure" state.'[224]

In *What is Philosophy?* Deleuze expands on the significance of the meanwhile. 'It is no longer time that exists between two instants: it is the event that is a meanwhile.'[225] Meanwhile is part of becoming. It exists at the same time as the event; it *is* the event in that it is uninhabited time between what has been and what is to be. Multiple meanwhiles overlay one another unlike time, which treads a linear path. For Deleuze, meanwhile is a dead time where nothing happens: 'Nothing happens there, but everything becomes …' and here I shift position slightly with Deleuze.[226] I see meanwhile as a timespace where something happens, where changes occur and things become something to be experienced in a different way. This is where a multiplicity and simultaneity of different trajectories, human and nonhuman agencies, phenomenal perception, the postphenomenological extension of perceptual and bodily intentionality and technological mediation coalesce and manifest in the single photograph.

A standard single lens reflex camera provides a single-eyed, static viewpoint of limited duration. Jonathan Crary states:

> The aperture of the camera corresponds to a single mathematically definable point from which the world could be logically deduced and re-presented. Sensory evidence that depended in any way on the body was rejected in favour of the representation of this mechanical and monocular apparatus.[227]

[223] Gilles Deleuze, *The Logic of Sense,* trans. Mark Lester with Charles Stivale, ed. Constantin V. Boundas (London and New York: Bloomsbury Academic, 2013), 188.
[224] See Gilles Deleuze, *Negotiations,* trans. Martin Joughin (New York: Columbia University Press, 1995), 170-71; Yve Lomax, "Thinking Stillness," in *Stillness and Time: Photography and the Moving Image*, eds. David Green and Joanna Lomax (Brighton: Photoworks, 2006), 59.
[225] Gilles Deleuze and Félix Guattari, *What is Philosophy?* trans. Graham Burchell and Hugh Tomlinson (New York and London: Verso, 2013), 158.
[226] Ibid.
[227] Jonathan Crary, "Modernizing Vision," in *Vision and Visuality*, ed. Hal Foster (Seattle: Bay Press, 1988), 32.

The system was founded on geometrical optics and the observer was an operator of the apparatus rather than acknowledgment given to the centrality of the body in perceiving the world.

In contrast, multiple viewpoints from several pinholes in my photographs provide multiple images and durations that extend beyond the split second. Observing the "once more" in various iterations implies a memory and a lived experience. The photograph reveals a durational span. It includes the lived perception of the scene as a whole and it shows an interpretation of the elements positioned in front of the camera as object. Things appear as directed by the confines of the pictorial arrangement, but the body experience gradually comes into view; as an unfolding of multiple perspectives. These perceptions relate to the "I" as one person does not have the ability to perceive things the same as others do. The "I" is representative of the singular perspective that this research critiques, but the "I" is no passive observer.

Merleau-Ponty, quoting Cézanne, says: 'The landscape thinks itself in me, and I am its consciousness.'[228] In the garden-as-landscape, "I" can see, touch, smell, taste and hear the things that are present in that space, so perception, in respect to those things that I perceive, locates my perceptual body within that space. Perceived objects are not just located in space, they are located in the space around the observer. When I am in the landscape, I dwell within it as I dwell within my body; I *am* it, a fusion of self and nature. Nonhuman objects within the garden-as-landscape have the capacity to affect and be affected thus indicating an openness to participate in any relational encounter.[229]

Surrounding a piece of landscape, as in the domestic garden, encapsulates a part of nature and determines what we see and feel about that space. Dwelling in, experiencing and sensing the space are vital aspects of understanding it. Experience of the space is received through more than one sensory modality because space has colour, sound, texture and smell as well as the consciousness, perception and recognition of the perceiver within the space. Merleau-Ponty observes that vision is

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[228] Maurice Merleau-Ponty, "Cézanne's Doubt (Le Doute de Cézanne)," in *The Merleau-Ponty Aesthetics Reader: Philosophy and Painting*, eds. Galen A. Johnson and Michael B. Smith (Evanston, Illinois: Northwestern University Press, 1993), 67.
[229] Brian Massumi, *Politics of Affect*, (Cambridge: Polity Press, 2015).

more than sight with each sense presenting other properties that do not correspond to it. David Brown concurs and believes that the senses are integrated and transform one another, providing the 'foundation upon which all of our higher vision, hearing and touch skills are based.'[230] Each sense informs and enables the others into a coalesced "super-sense" that interprets and perceives the world the body experiences in the world. In relation to Brown, Merleau-Ponty observes:

> One sees the hardness and brittleness of glass, and when, with a tinkling sound, it breaks, this sound is conveyed by the visible glass. One sees the springiness of steel, the ductility of red-hot steel, the hardness of the plane blade, the softness of shavings.[231]

A vital sense for humans (and other creatures) is proprioception, an awareness that provides a sense of the body's position in space by responding to stimuli from within it.[232] Placing a hand on the garden wall will reveal its hardness, its temperature, its roughness, its rigidity, its shape. These properties we feel with our hands so proprioception is a fundamental part of the sense of touch. Proprioception is also a fundamental part of vision; its role is highlighted by Merleau-Ponty:

> When I walk round my flat, the various aspects in which it presents itself to me could not possibly appear as views of one and the same thing if I did not know that each of them represents the flat seen from one spot or another, and if I were unaware of my movements, and of my body as retaining its identity through the stages of those movements.[233]

We see continually changing aspects of things in the world and for us to recognise that these things are solid and not transitory manifestations, our proprioceptive awareness allows us to move in relation to those things.[234] Merleau-Ponty realizes his looking is embodied, it is related to his body and his body is affecting his looking. In my photographs, proprioception plays a part in deciphering

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[230] David Brown, "The Forgotten Sense: Proprioception," *Dbl Review* 38 (2006): 20.
[231] Maurice Merleau-Ponty, *Phenomenology of Perception*, trans. Colin Smith (London: Routledge, 2002), 266-7.
[232] David Brown, "The Forgotten Sense: Proprioception," *Dbl Review* 38 (2006): 21-22. Proprioceptive receptors are found throughout the body and respond to the extension and contraction of muscles and joints 'Proprioception awareness is the way we can feel where all our body parts are in relation to each other (and also "see" them in our mind's eye) without actually having to touch them with a hand or look at them with our eyes. This sense helps us to plan, to position, and to grade our movements without always having to use vision to check what we are doing.'
[233] Maurice Merleau-Ponty, *Phenomenology of Perception*, trans. Colin Smith (London: Routledge, 2002), 235.
[234] Komarine Romdenh-Romluc, *Merleau-Ponty and Phenomenology of Perception* (Abingdon, Oxon: Routledge, 2011), 69.

what is seen in relation to the body but its presentation creates some-things as no-things because they are not representational manifestations of objects in front of the camera.

Things within the studio garden have meaning and the ability to produce affects.[235] They are not inactive and passive. Bennett refers to them as 'vivid entities not entirely reducible to the contexts in which (human) subjects set them.'[236] Theodor Adorno calls this 'the preponderance of the object' and, for him, objects are always interwoven with human subjectivity.[237] My attention will be drawn, say, to a particular arrangement of stems or a plant for reasons beyond my conscious thought but, nevertheless, they "incite" me to turn the camera towards them.

The wall is one of many things in the studio garden that exert a certain material agency into the perceptual schema. Jane Bennett's "thing-power" highlights the role that nonhuman objects (Merleau-Ponty's "things in the world"), play in our everyday. She believes thing-power highlights 'the strange ability of ordinary, man-made items to exceed their status as objects' indicating their capacity to have an existence and importance beyond our experience of them.[238] W.J.T Mitchell emphasises the difference between an "object" and a "thing". He notes, 'objects are the way things appear to a subject – that is, with a name, an identity, a gestalt or stereotypical template …Things, on the other hand … [indicate] when the object becomes the Other, when the sardine can looks back, when the mute idol speaks, when the subject experiences the object as uncanny …' suggesting things are far from passive.[239] Bennett's "thing-power" 'seeks to acknowledge that which refuses to dissolve completely into the milieu of human knowledge' and 'provoke affects.'[240]

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[235] 'Affect is a body's capacity [human or nonhuman] to affect and to be affected', often in very subtle or minute ways. See Gregory J. Seigworth and Melissa Gregg (eds.), "An Inventory of Shimmers," in *The Affect Theory Reader* (Durham and London: Duke University Press, 2010), 2.

[236] Jane Bennett, "The Force of Things," in *Vibrant Matter: A Political Ecology of Things* (Durham and London: Duke University Press, 2010), 5.

[237] Theodor W. Adorno, *Negative Dialectics*, trans. E. B. Ashton (New York: The Seabury Press, 1973), 183.

[238] Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham and London: Duke University Press, 2010), xvi.

[239] W.J.T. Mitchell, *What Do Pictures Want: The Lives and Loves of Images* (Chicago: University of Chicago Press, 2006), 156-57.

[240] Jane Bennett, "The Force of Things," in *Vibrant Matter: A Political Ecology of Things* (Durham and London: Duke University Press, 2010), 3 and 4.

Most humans possess peripheral or unfocused vision, which enables us to see objects and movement that are outside our direct line of vision. Without the need to focus on them, it enables us to recognize well-known structures and forms and, utilising the laws of Gestalt psychology, enables the identification of similar forms and movements.[241] Author, Anaïs Nin, frames this idea: 'We do not see the world as it is, we see it as we are.'[242] Most importantly it provides the sensations that form the background of detailed visual perception.[243]

For Juhani Pallasmaa, focused vision, like that seen through the lens of a camera, is regarded as a "confrontation" between us and the world, while 'peripheral vision [enfolds] us in the flesh of the world.'[244] Merleau-Ponty describes looking at an object as 'to inhabit it and to thereby grasp all things according to the sides these other things turn toward this object.'[245] This references our capacity to imagine the object from all the angles we cannot see, even when obscured by other objects and extends to the continuity of objects in peripheral vision that remain 'dormant but they do not cease to be there.'[246] Identification of an object requires that object to be distinguishable from other things and that 'perception necessarily has a figure-background structure.'[247]

The idea of a discourse between a person and the world they inhabit 'in terms of an average existence in an ordinary world' was introduced by Martin Heidegger with his notion of *Dasein*, one aspect of which is "being there".[248] Merleau-Ponty alludes to this phenomenon in his discourse on the artist Paul Cézanne where he believes, 'he was able to look at nature as only a human being

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[241] Gestalt theory proposes observation of the whole object or scene rather than just the individual parts is more important to our understanding and ordering of the 'chaos and unity among outwardly unrelated parts and pieces of information.' "Gestalt Psychology: Definition and Principles," Study.com, accessed June 27, 2017, http://study.com/academy/lesson/gestalt-psychology-definition-principles-quiz.html?cv=1&session-id-7815e9649bdc609f9432c72bf2ed11f2

[242] Anaïs Nin, *Seduction of the Minotaur* (Chicago: Swallow, 1961), 124.

[243] Visual perception is how we interpret our environment by processing information that is contained in visible light.

[244] Juhani Pallasmaa, *The Eyes of the Skin* (Chichester: Wiley Academy, 2005), 10.

[245] Maurice Merleau-Ponty, *Phenomenology of Perception*, trans. D.A. Landes (London & New York: Routledge, 2012), 71.

[246] Ibid., 70.

[247] Komarine Romdenh-Romluc, *Routledge Philosophy Guidebook to Merleau-Ponty and Phenomenology of Perception* (Abingdon, Oxon and New York: Routledge, 2011), 40.

[248] Thomas A. Schwandt, *Qualitative Inquiry: A Dictionary of Terms* (Thousand Oaks, California: Sage, 1997).

can.'[249] By repeatedly painting Mont Sainte Victoire (spanning a period from c1882 until his death in 1906), Cézanne 'wanted to depict matter as it takes on form.'[250] In a letter to his friend, Charles Camoin, dated 13 September 1903, Cézanne says, '… we must hasten out and by contact with nature revive in us the instincts and sensations of art that dwell within us.'[251] When Emile Bernard asked, '… aren't nature and art different?' Cézanne said he wanted them to be the same, to embody art in sensations and he became immersed in the place and the place became the body.[252] Distancing himself from the Renaissance techniques of linear perspective and outline, he would abandon himself to the 'chaos of sensation' to define space and generate depth.[253]

The *Meanwhile/Becoming* series of photographs deconstructs individual objects and re-presents the space, both in the perceived and literal sense, distancing itself from the constructed visual world according to Renaissance codes and creating a chaotic miasma from which no-things are revealed. My body is immersed in space in time, entangled with the agencies of nonhuman forms, responding to the sensations it experiences via the mediation of the apparatus.

Doreen Massey deems space and time to be intimately connected where 'time is the dimension of change, and of dynamism, and of the life we live […] and space became the dimension that wasn't all of that.'[254] For her, space is material: time is without materiality. 'A lot of us […] implicitly think of space as a kind of flat surface out there […] and space is therefore devoid of temporality: it is without time, it is without dynamism, it is a kind of flat, inert given.'[255] Instead she asks us to imagine space as a pincushion of a million stories: a journey from one place to another that cuts through many stories along the way. She refers to cultural

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[249] Maurice Merleau-Ponty, "Cézanne's Doubt (Le Doute de Cézanne)," in *The Merleau-Ponty Aesthetics Reader: Philosophy and Painting*, eds. Galen A. Johnson and Michael B. Smith (Evanston, Illinois: Northwestern University Press, 1993), 61.

[250] Ibid., 63. A parallel can be drawn between Cézanne and the Japanese artist Katsushika Hokusai and his *Thirty-Six Views of Mount Fuji: The Great Wave off the Coast of Kanagawa* (c.1831) in the repeated interpretation of a specific landscape, but here the comparison ends.

[251] Herschel B. Chipp, *Theories of Modern Art* (Berkeley, Los Angeles and London: University of California Press, 1968), 18.

[252] Maurice Merleau-Ponty, "Cézanne's Doubt (Le Doute de Cézanne)," in *The Merleau-Ponty Aesthetics Reader: Philosophy and Painting*, eds. Galen A. Johnson and Michael B. Smith (Evanston, Illinois: Northwestern University Press, 1993), 63.

[253] Ibid., 63.

[254] "Doreen Massey on Space," Social Science Bites, Last modified February 1, 2013, accessed 28.5.2014, http://www.socialsciencespace.com/2013/02/podcastdoreen-massey-on-space

[255] Ibid.

historian Raymond Williams glancing out of the train window and seeing a woman cleaning out a grate. The train continues and the woman forever stays in that moment in his mind. In fact, the woman is in the middle of her own story. 'If time is the dimension in which things happen one after the other, it's the dimension of succession, then space is the dimension of things being, existing at the same time: of simultaneity.'[256] The difference here is in the movement.

Massey points out that 'over and over we tame the spatial into the textual and the conceptual; into representation.'[257] Representation is not my intention as it does not incorporate movement (duration) within the space. Representation would not account for the way my eyes view things with their constant saccadic flickering. Representation would not take note of the other multiplicities that occur or take in the sounds, smells and feelings linked to my proprioceptive awareness during this time of making. Thinking with Massey, we can pose the dual, or parallel question that the opposite is true – that through representation we spatialise time so that space manages the temporal.

Bergson argues that we can only understand time through movement. In *Matter and Memory* he says:

> Movement visibly consists in passing from one point to another, and consequently in traversing space. Now the space which is traversed is infinitely divisible; and as the movement is […] applied to the line along which it passes, it appears to be one with this line and, like it, divisible.[258]

For Bergson, space becomes a dimension of qualitative divisibility, of plurality, that is both instantaneous and static, it is without duration, so 'we cannot make movement out of immobilities, nor time out of space.'[259] This prioritization of time over space attributed to the way he conceptualised space and space was deprived of dynamism.

[256] "Doreen Massey on Space," Social Science Bites, Last modified February 1, 2013, accessed 28.5.2014, http://www.socialsciencespace.com/2013/02/podcastdoreen-massey-on-space

[257] Doreen Massey, *For Space* (London: Sage Publications Ltd, 2014), 20.

[258] Henri Bergson, *Matter and Memory,* trans. Nancy M. Paul and W. Scott Palmer (London: George Allen and Unwin, 1911), 248.

[259] Henri Bergson, *Time and Free Will: An Essay on the Immediate Data of Consciousness* (1889), trans. Frank L. Pogson (London: George Allen and Unwin, 1950), 115.

In this argument, representation removes time by fixing things, making things static. Massey asks why we cannot 'imbue these instantaneous sections with their own vital quality of duration? A dynamic simultaneity would be a conception quite different from a frozen instant.'[260] Though the legacy of "meaning-space-representation-stasis" lingers on, Massey calls for 'space as the dimension of a multiplicity of durations.'[261] If representation fixes, reduces to stasis and therefore deadens and detracts from the flow of life, then it would follow that the product of this process of deadening is space. But this is not necessarily the case, though this way of thinking is deeply embedded within us historically, socially, scientifically and intellectually.

Do I fix time in the darkroom? There is an element of fixing in that I make permanent an image onto paper so it becomes something tangible rather than the ever-moving, ephemeral glimpses of life seen through the camera obscura. But my photographs hold more than a split second burst of light and the space is enlivened with movement, expressed as time (movement) in time (duration).

If representation fixes time then it fixes time *and* space, not just time. Here the issue for Massey 'is not the spatialisation of time (understood as the rendering of time as space), but the representation of time-space. What we conceptualise … is not just time but space-time.'[262] Representation should strive to capture the spatial *and* the temporal, it should be constitutive not mimetic. Representation can never be "real space" and should never be confused with it. The process needs to be open rather than closed, static and isolated, open to creative possibilities and human experience, 'where the possible is richer than the real.'[263] For space to be open, time must be open too. They cannot be fixed as in static representation so space, as well as time, cannot be represented.

Using movement and multiple viewpoints, images of space and time are created that are more "possible" than those obtained from more conventional (scientific/geometric) methods. The design and construction of my pinhole camera

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[260] Doreen Massey, "Politics and Space-Time," *New Left Review* 196 (1992): 65-84, accessed July 7, 2016, url: http://knowledgepublic.pbworks.com/f/MasseySpace.pdf
[261] Doreen Massey, *For Space* (London: Sage Publications Ltd, 2014), 24.
[262] Ibid. 27.
[263] Ilya Prigogine, *The End of Certainty: Time, Chaos and the Laws of Nature* (London: Free Press, 1997), 72.

with multiple pinhole apertures, with the ability to alter focal length during exposure, differs from the single viewpoint afforded by the single lens camera. Though each pinhole produces an image following the rules of linear perspective, by moving the camera's position, altering the focal length during exposure and opening specific apertures produce an image that will be more reflective of how I look at and perceive a specific space. The camera registers movement and differences in depth of field and in this way offers differing depths of meaning for the viewer. The camera and photographer remain autonomous but the work combines the attributes of both. The question of perception is framed within the broader framework of photography as memory and photography as experience.

Space is understood to be an open, ongoing production or event rather than closed, restricted and rigid, counter to Bergson's notion that space is both instantaneous and static. Instead, I utilize Massey's idea of space as a dimension of multiple trajectories, a multiplicity of durations rather than static time-slices. Durations of time spent in the garden reveal other stories occurring simultaneously that become subsumed within the visual spaces presented in the photographs. Merleau-Ponty's phenomenology of perception enables us to comprehend all the things that the world presents to us in our everyday experience of them. This is how reality manifests itself to us, the relationship between the reality of those things and how things appear to us to be. But appearances can mislead or represent reality in a way other than it is, but, even if this is the case, they still present things as being in a particular way.

In *Negotiations,* Deleuze says he has, 'tried in all my books to discover the nature of events' and found that 'events always involve periods when nothing happens.'[264] They always involve a wait for something to happen. This period between events is a meanwhile; for Lomax, it is where 'a present moment in time does not come to pass.'[265] Deleuze wants us to be aware of and experience the meanwhile of events. He wants us to realize that meanwhile belongs to becoming not to the eternal.[266] The meanwhile, for me, is not the Deleuzean dead time

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[264] Gilles Deleuze, *Negotiations,* trans. Martin Joughin (New York: Columbia University Press, 1995), 141 and 160.

[265] Yve Lomax, "Thinking Stillness," in *Stillness and Time: Photography and the Moving Image*, eds. David Green and Joanna Lomax (Brighton: Photoworks, 2006), 59.

[266] Gilles Deleuze and Félix Guattari, *What is Philosophy?* trans. Graham Burchell and Hugh Tomlinson (New York and London: Verso, 2013), 158.

between events but rather a time that is open to processes of creativity through duration and differentiation. Meanwhile is waiting for the right conditions to come together to make a photograph possible: to wait for a day when the light is flat, when the wind is slight or soft, when the chance of rain is slight. It is not about waiting for ideal conditions to make a photograph but more about waiting for those conditions that are best for the technology being used, to make things work. Meanwhile is the timespace where things are in a perpetual state of becoming, which I examine in Chapter 3, "Becoming".

Chapter 3 - Becoming

Fig. 56: Meanwhile/Becoming - Photograph No. 122 – 1 Tear, 7 Apertures (4 March 2016)

<u>*4th March 2016*</u>

11.20am and it is snowing, and though the sky is uniformly grey and heavy with more snow, the whiteness of the fallen snow will have an affect on the amount of reflected light entering the camera. I'm not too sure if I can calculate this reflected light but to start I will use a ten minute exposure with all the pinholes open and the back in fully.

Snow is falling, gently moving through the air before settling onto the remains of the plants left after the summer bloom. The breeze is slight, almost imperceptible, but enough to cause the flakes to dance and drift through the air. Above, heavy snow-laden clouds move laboriously, driven by stronger winds high up in the atmosphere. There is movement around me as I set up my camera and turn its face to the borders. I move and I move the camera. Light waves pass through the open apertures and bounce and rebound inside the black box before settling onto the photographic film to create form amongst the chaos within. Form that changes with each passing moment as the snow continues to settle.

My photographic research focuses on the temporal conditions of "becoming"; the processes of change (that period of time when things happen), the movement between events (though it does not represent a phase between events); the continual production of difference in light, space and experience and the factor of unpredictability. This results in my inability to ever produce the same photograph, even if I tried to replicate the situation under scientific conditions. Time has elapsed so I am no longer the same photographer in the same place under the same conditions. In *Creative Evolution*, Henri Bergson's notion of duration is important for understanding that changes of state mean the continual invention and creation of forms.[267] He regards his body as continually passing from state to state, not only physically as in the ageing process, but in 'sensations, feelings, volitions and ideas' that are 'undergoing change every moment.[268] For Bergson then, in one sense, sensation can be measured as durational experience. For him 'a lighter gray is not the same gray muted but an altogether different, unique sensation.'[269] He says:

> Let us take the most stable of internal states, the visual perception of a motionless external object. The object may remain the same, I may look at it from the same side, at the same angle, in the same light; nevertheless the vision I now have of it differs from that which I have just had, even if only because the one is an instant older than the other.[270]

This personal change of state is in addition to other changes that are occurring. Light is never static, changing quality and direction minute by minute, emphasizing the unpredictability (and agency) of light found in any one place at any one time. The quality and quantity of light is vital to the photographic process. The intensity and brightness of direct and reflected light determine hardness or softness, and the direction of light determines tone, mood and atmosphere.

I explore the idea of change through the concept of difference and repetition, borrowed from Deleuze, in contrast to generality where science seeks to predict reality using sameness, as well as Bergson's notion of change where change is a

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[267] Henri Bergson, *Creative Evolution*, trans. Arthur Mitchell (Mineola, New York: Dover Publications Inc, 1998), 11.
[268] Ibid., 1.
[269] Henri Bergson, *Time and Free Will: An Essay on the Immediate Data of Consciousness,* trans. Frank L. Pogson (London: George Allen and Unwin, 1959), 56.
[270] Ibid., 2.

constant state of movement (duration). He says 'a conscious being' must change to exist, and to change is to endure and that '[t]he more we study the nature of time, the more we shall comprehend that duration means invention, the creation of forms, the continual elaboration of the absolutely new.'[271]

The photograph will contain not only created form but, linked to time, will reflect the process of producing photographs that express the creation of form.[272] Stella Baraklianou elaborates further: 'The question of duration becomes an actualisation of the image associated from within her body's perceptions and enveloped through her actions in movement.'[273] As multiple viewpoints unfold slowly in time onto film stock, though residues of original context remain, deconstruction and reconstruction of light forms then reveal the illusory and complex nature of entities.

In addition to the creative processes involved in form making, the becoming of forms has its own critical theoretical history. Becoming is a word in critical theory used by Gilles Deleuze and Félix Guattari in the 1970s. The concept of *becoming-woman* was introduced by Guattari to engage a political description of minoritarian positions.[274] In this research, becoming-woman, as a philosophical tool, is used to describe the processes of creativity through differentiation, through duration. As Gillian Howie argues, 'becoming-woman draws attention to a view of life as an indeterminate creative process' and Rosi Braidotti maintains that '[b]ecomings are creative work-in-progress processes.'[275] The creative space expressed by the processes of non-majoritarian (that is minoritarian) are in this sense non-linear enabling new possibilities to become-other.[276] Becoming-woman, here, is looked upon as liberation from boundaries, creativity as a dynamic state of

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[271] Henri Bergson, *Creative Evolution*, trans. Arthur Mitchell (Mineola, New York: Dover Publications Inc, 1998), 7 and 11.
[272] Stella Baraklianou, "Pasearse: Duration and the Act of Photographing," in *Bergson and the Art of Immanence: Painting, Photography, Film*, eds. John Mullarkey and Charlotte de Mille (Edinburgh: Edinburgh University Press, 2013), 131.
[273] Ibid., 135.
[274] Becoming-woman is discussed in Félix Guattari, *Molecular Revolution: Psychiatry and Politics*, trans. R. Sheed (London: Penguin Books Ltd, 1984), 233-5 and Gilles Deleuze and Félix Guattari, *A Thousand Plateaus*. trans. Brian Massumi (London and New York: Continuum, 2004), 303-6.
[275] Gillian Howie, "Becoming-Woman: The Brain, The Marrow, The Tongue or Copula without Copulation," in *Deleuzian Events: Writing / History*, eds. Hanjo Berressem and Leyla Haferkamp (Berlin: LIT, 2009), 104; Rosi Braidotti, *Metamorphoses: Towards a Materialist Theory of Becoming* (Cambridge: Polity Press, 2002), 116.
[276] Rosi Braidotti, *Metamorphoses: Towards a Materialist Theory of Becoming* (Cambridge: Polity Press, 2002), 119.

becoming rather than the fixed and clichéd terms and meanings of the mass media. Liberation, also, from humanist egotism that positions Man at the central point around which all things revolve.

For new possibilities to be enabled, creative space requires time to take on rhizomatic form allowing creativity to travel in any direction rather than follow the limited Cartesian gaze where all ideations take place from a particular perspective. A characteristic of the rhizome is one of constant growth into other areas, creating perpetual connections and becoming multiple objects. In *A Thousand Plateaus*, Deleuze and Guattari use the term "rhizome" for things other than plants that can link things like the 'wasp and the orchid', the 'cat and baboon', the inanimate and the animate, with different, specific forms.[277] Creative work-in-progress does not develop if it is imagined as remaining static and passive, rather, the becoming of novel perspectives is through the exploration of processes of becoming forms.

My photographs evoke Foucaultian heterotopic spaces and, like the rhizomatic root, they are unpredictable and undefined, responding to the agencies of elements in the environment as they find it, taking open-ended routes. In the process of taking a photograph, the future outcome is uncertain and although I can speak of probability, I cannot predict how things will develop. The light in the studio garden changes constantly and is difficult to calculate. Unlike the hereditary tree which is fixed in one spot with the roots spreading from the central core (being), the rhizome is always producing something new out of the same thing (becoming). Bergson speaks of something new being added to each moment to what was before.[278] Each element – light, time, weather, film batch, camera position, length of exposure and development – nonhuman or otherwise – will be different every time an image is created. For Braidotti, these changing elements cause any situated perspective to become decentred, multi-layered and dynamic.[279]

Jane Bennett speaks of the "vitality" of nonhuman bodies. By this she means the tendency of things acting as 'agents or forces with trajectories, propensities or

[277] Gilles Deleuze and Félix Guattari, *A Thousand Plateaus*. trans. Brian Massumi (London and New York: Continuum, 2004), 263 and 324.
[278] Henri Bergson, *Creative Evolution*, trans. Arthur Mitchell (Mineola, New York: Dover Publications Inc, 1998), 6.
[279] Rosi Braidotti, *Metamorphoses: Towards a Materialist Theory of Becoming* (Cambridge: Polity Press, 2002), 2.

tendencies of their own' to affect us both inside and outside the body; the material agency of nonhuman things.[280] Light, in its fluctuating states, is one of many elements that can change the course of events in the creation of form in my photographs. These 'unpredictable actions of human bodies, nonhuman, creatures, ecological systems, chemical agents, and other actors' are always in a state of transition, in a state of becoming.[281]

Becoming does not imitate, resemble or identify. Becoming becomes what it is and will be. Deleuze and Guattari observe that it 'produces nothing other than itself [thereby lacking] a subject distinct from itself.'[282] For them, becoming does not evolve 'from something less differentiated to something more differentiated' but is involutionary, enfolding and creative in that it becomes something new (not to be confused with regression which 'is to move in the direction of something less differentiated' – though there are elements of this within the photographs).[283] It coexists alongside other becomings (referencing both Massey and Bergson's notions of different durations or multiplicities) that communicate with one another and form a temporal block of becoming.

Becoming is not defined by a line drawn between two points; a point from the past (memory?) and a point that is the present moment. Becoming comes between these points, running from the point of entry to some point in the future. For Deleuze and Guattari: 'A point is always a point of origin. But a line of becoming has neither beginning nor end, departure nor arrival, origin nor destination […]. A line of becoming has only a middle.'[284] The process of becoming does not begin or end when I decide. Instead it develops, like the photographic process, with and in response to me. For Lomax 'the first tentative steps of processual time' are taken.[285] As the film is loaded, the camera positioned and the

[280] Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham and London: Duke University Press, 2010), viii.
[281] Stacy Alaimo, "Porous Bodies and Trans-Corporeality*," Larval Subjects*, May 24, 2012. https://larvalsubjects.wordpress.com/2012/05/24/stacy-alaimo-porous-bodies-and-trans-corporeality/
[282] Gilles Deleuze and Félix Guattari, *A Thousand Plateaus,* trans. Brian Massumi (London and New York: Continuum, 2004), 262.
[283] Ibid., 263.
[284] Gilles Deleuze and Félix Guattari, *Capitalism and Schizophrenia, Vol. 2: A Thousand Plateaus.* (Minneapolis: University of Minnesota Press, 1987), 293.
[285] Yve Lomax, *Sounding the Event: Escapades in Dialogue and Matters of Art, Nature and Time* (London and New York: I B Tauris, 2005), 33.

apertures opened, I, and they, enter into, and become part of, the flow of other becomings that co-exist simultaneously.

While the terms of becoming and the multiplicity and simultaneity of durations have explicit roots in the work of Deleuze and Guattari, other philosophical notions of becoming are also useful for imagining the becoming of forms. The significance of Henri Bergson's ideas on time and duration and the applications of Bergsonian concepts by such thinkers as Yve Lomax, Elizabeth Grosz and Rosi Braidotti, is a focus in relation to the processes of photographic practice.

Braidotti anticipates problems when using theoretical reason to explain practice when she says:

> Thinking about flows and interconnections remains a difficult challenge. The fact that theoretical reason is concept-bound and fastened upon essential notions makes it difficult to find adequate representations for processes, […] experience and information. They tend to become frozen in spatial, metaphorical modes of representation …[286]

Science tells us what the world is like and philosophy creates a view through which the world can take on a new significance. Photography is situated in and between the two. Scientific technology is found in the design and operation of a basic camera, the chemicals that sit on the surface of photographic film and in darkroom trays. The mathematical equations necessary for exposure times and the light that is crucial to create a photograph are all grounded and bound within the laws of nature. The science of photography describes the use of light. Light comes in waves and a fundamental property of any photographic method is how the light is collected onto photographic paper, film or CCD.[287] László Moholy-Nagy argues: 'The photographer is a manipulator of light; photography is a manipulation of light.'[288] Experimentation with specific equipment in controlled conditions will almost always end with the same result so there is little or no room for things to be

[286] Rosi Braidotti, *Metamorphoses: Towards a Materialist Theory of Becoming* (Cambridge: Polity Press, 2002), 2.
[287] 'A CCD is a charge coupled device – an integrated circuit etched onto a silicon surface to form light sensitive elements called pixels.' "What is a CCD?" Spectral Instruments, accessed October 4, 2014, http://www.specinst.com/What_Is_A_CCD.html
[288] László Moholy-Nagy, "Photography is Manipulation of Light," *Bauhaus 2,* no. 1 (1928) reprinted in *Haus* (1997): 47-50.

any different. Bergson believes 'science isolates and closes a system' so any potential for difference or change is stifled and becomes mere representations of whatever is positioned in front of the camera lens.[289] Quantifiable light can be measured and altered to allow specific conditions for photograph production, yet the qualitative *experience* of light cannot be manipulated. How this experience is expressed varies.

Thinking with Deleuze, change is discussed in terms of difference and repetition, in contrast to generality. Generality is not repetition. For Deleuze., generality can be resemblance or equivalence whereas repetition indicates something singular that cannot be replaced.[290] If I take photographs of the same thing they will never be a generalization of that thing, they will be different to each other. Generalities are events or things that are connected through cycles, for example, the laws of nature. So, events like changing seasons, birth/growth/decay, science of photography/light are phenomena that will continue to occur in the same way time after time and can all be described by science.

To understand becoming in the ways in which forms are created, over time, and through observation (as experience), I consider Deleuze's notions of difference and repetition. He suggests repetition can only be described as a unique series of things or events. Using photography as an art form rather than for the documentation and/or identification of objects, the criteria used can be the same (considering technical factors such as the camera position, batch of film, exposure length) but the resulting photograph will never be the same. External factors such as weather conditions and, in particular, the light radiation/spectrum range of specific moments, can never be replicated. The conditions under which each photograph is produced are unique as no element can ever physically be equivalent. Yet the camera repeats; repeatedly takes and makes an image from the same place.

Repetition, for Deleuze, 'concerns non-exchangeable and non-substitutable singularities' so the repeats of objects found in my photographs are not resemblances or equivalences, they are objects photographed from different

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[289] Henri Bergson, *Creative Evolution,* trans. Arthur Mitchell (Mineola, New York: Dover Publications Inc, 1998), 10.
[290] Gilles Deleuze, *Difference and Repetition*, trans. Paul Patton (London and New York: Continuum, 2004), 2.

viewpoints and are therefore individually unique.[291] The repeated entities in the photographs behave in a similar way to each other because they are the same object but they present themselves to the viewer in a different form, and so add to our experience and perception of them. David Hume argues, '…the repetition neither discovers nor causes any thing in the objects, but has an influence only on the mind […] which are consequently qualities of perceptions, not of objects.'[292] The repetition brings life and energy to the singular object - through attention to differences, rather than imposing a diminishing relevance or importance. Once we observe these differences, Hume concludes, 'we conceive it in a stronger light upon account of that relation.'[293] The mind recognizes differences from repetition and, consequently new experiences of the objects and the space they inhabit.

Difference challenges the traditional theory of representation and 'releases difference from the domination of identity and sameness.'[294] Difference is not defined in terms of not-sameness or derivative difference but in terms of what Deleuze calls 'difference-in-itself.'[295] Photographs of the garden [see Figs. 5, 6, 12, 47, 49, 54, 55, 56, 60 and 61] show variable degrees of difference (multiple viewpoints), not as a series but as a structure so that the ordering of differences will 'arrive at a correspondence of relations.'[296] However, this, in itself, does not add up to a becoming because structuralism rejects or maligns their existence, seeing becomings as 'a deviation from the true order' and 'denouncing the prestige accorded the imagination.'[297] Repeated elements within the photographs viewed from different viewpoints facilitate different experiences of those elements, so repetition ultimately shows the disparate, the incongruent, not identity. This increases perception and realization of a space that exceeds the limiting view of the single vantage point and moves away from representation, opening up the space to change.

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[291] Gilles Deleuze, *Difference and Repetition*, trans. Paul Patton (London and New York: Continuum, 2004), 1.
[292] David Hume, *A Treatise of Human Nature: A Critical Edition*, eds. David Fate Norton and Mary J. Norton, Book I, Part III Section 14 (Oxford: Oxford University Press, 2007), 112.
[293] Ibid., 111.
[294] Cliff Stagoll, "Difference," in *The Deleuze Dictionary,* ed. Adrian Parr (Edinburgh: Edinburgh University Press, 2010), 75.
[295] Gilles Deleuze, *Difference and Repetition*, trans. Paul Patton (London: Continuum, 2011), 36-83.
[296] Gilles Deleuze and Félix Guattari, *A Thousand Plateaus,* trans. Brian Massumi (London and New York: Continuum, 2004), 260.
[297] Structuralism is a 20th Century intellectual movement that believes all human activity including perception and thought are constructed and not natural. See Félix Guattari, *The Machinic Unconscious: Essays in Schizoanalysis,* trans. Taylor Adkins (Semiotext(e): Cambridge, MA, 2011), 27; Gilles Deleuze and Félix Guattari, *A Thousand Plateaus,* trans. Brian Massumi (London and New York: Continuum, 2004), 262 and 260.

Change is not something that can be predicted or recognized because, if that were so, then the change would not be new. Part of the excitement of my practice lies in the anticipation that results from not knowing what those changes will be. Bergson explains this unpredictability:

[T]o foresee consists of projecting into the future what has been perceived in the past, or of imagining for a later time a new grouping, in a new order, of elements already perceived. But that which has never been perceived, and which is at the same time simple, is necessarily unforeseeable.[298]

Change presupposes time. It is the time when length of exposure and absorption of light on photographic paper or film affects a change on the surface material to bring a photograph into actuality. However, it is more than this. It is also movement, but this movement has little to do with the crossing of space. It is the movement apparent in changes found between events, movement found in long exposures and change of focal planes, movement as interaction with the camera and landscape and it is the recognition, acknowledgement and absorption of other (multiple) becomings that are experienced simultaneously in the space.

My photographic practice involves a constant state of moving. I walk to the window overlooking the garden and scan the sky, looking for high cloud cover and consider the weather conditions. Is the sun too bright, the wind too blustery, snowfall expected? Do I have the time to do this? I gather together the things I need and move into the dark space with the camera, the box of film and a pair of scissors. After I close the door behind me, I carefully position the dark cloth over the door seams to prevent any light leaks and settle on the floor. In complete darkness, I feel for and open the box of film, remove one sheet and cut one, two, or however many cuts I need to indicate and mark the individual sheets. I always do this with my eyes shut. I don't know why I do this because there is no need, I am already in complete darkness, but it enhances and concentrates my sense of touch. It also draws me into a comforting, velvet space where everything is centred on touch. All other senses are diminished. After pulling out the back of the camera and placing it in position on my lap, I orient the film sheet into landscape and slip the

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[298] Henri Bergson, *Creative Evolution*, trans. Arthur Mitchell (Mineola, New York: Dover Publications Inc, 1998), 6.

lower edge into the back of the camera behind two battens in the bottom corners before sliding the top of the film into the top two battens. The trickiest part is slotting the back of the camera into the front because it is heavy and clumsy and awkward.

The movement continues. I carry the loaded camera out to the kitchen and attach it to the tripod. It is large, boxy and unwieldy, somewhat top heavy for the single tripod fitting, which can be difficult to locate, and the tension in me grows. Shoving my notebook and a pen in my pocket, I manoeuvre everything through the kitchen door and out into the garden. What determines the position of the camera? A difficult question to answer in words alone because although I may have formulated some plan of action whilst looking out of the window, the final decision comes from being out in the space and looking. I am drawn to the potential of a particular plant or aspect and sense which position to take. I may have placed the camera many times in approximately the same position but each time produces a different result because I am in another "becoming", another trajectory, another story. The individual elements are the same but they have changed: grown, blossomed, withered, died, moved on in their cycle. Every element is in a permanent state of change or transition and, as such, for Braidotti, 'these in-between states and stages defy the established modes of theoretical representation.'[299]

In *A Thousand Plateaus*, Deleuze and Guattari discuss "becoming" at length. Understanding their notions of becoming-animal and becoming-woman have helped to develop and understand becoming within my practice where process takes priority over result.[300] The results of my practice are not always successful, but the process of giving creativity time and space to becoming-other is paramount. The relevance of becoming-animal has nothing to do with anthropomorphism but, instead, relationships and differences within a group or between objects. The objects in front of my camera are varied, and change through observation and the experience of their duration, as Bergson describes. Multiple viewpoints of each

[299] Rosi Braidotti, *Metamorphoses: Towards a Materialist Theory of Becoming* (Cambridge: Polity Press, 2002), 2.
[300] Gilles Deleuze and Félix Guattari, *A Thousand Plateaus,* trans. Brian Massumi (London and New York: Continuum, 2004), 262 and 257-341.

individual object provide differences in appearance that create relationships with itself within the single photograph.

Deleuze and Guattari discuss series and structure associated with 'relationships between animals in two ways.'[301] Series and structure are used to critique the method of making, and though a very closed system, this same closed system is articulating and expressing something new, not as a binary (in the sense of positive/negative or either/or), but as a working together, a generative pulling and pushing, which Deleuze explores further in *Difference and Repetition* (2004).

A series is where resemblances differ from one another in that '*a* resembles *b, b* resembles *c,* etc.'[302] This assumes a base sameness that can be compared between the two states and 'difference becomes merely a relative measure of sameness and, being the product of a comparison, it concerns external relations between things.'[303] Structure, which relates to my practice within the confines of the single image, examines where differences resemble each other comparatively, as in '*a* is to *b* as *c* is to *d*.'[304] Here there is no presumption of a base sameness and, instead, incorporation of a view of the world through an *a priori* perception, which has implications for epistemologies of sight and vision.

Drawing on David Hockney's *Tunnel* series of paintings from 2006 [Figs. 57-59], the resemblances of *a* and *b, b* and *c* and therefore c and *a* are obvious through the passage of time in the change of season. Here the base sameness of the individual elements is used to compare the different times and entities of the landscape depicted; yet the resemblances differ from one another in obvious ways. Looking at Hockney's paintings, the eye searches for similarities and notes the slightly shifted perspective of each one. Familiar shapes are found and the eye moves from one painting to the other looking for affirmation that this is the same place.

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301 Gilles Deleuze and Félix Guattari, *A Thousand Plateaus,* trans. Brian Massumi (London and New York: Continuum, 2004), 258.
302 Ibid.
303 Cliff Stagoll, "Difference," in *The Deleuze Dictionary,* ed. Adrian Parr, (Edinburgh: Edinburgh University Press, 2010), 74.
304 Gilles Deleuze and Félix Guattari, *A Thousand Plateaus,* trans. Brian Massumi (London and New York: Continuum, 2004), 258.

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Fig. 57: David Hockney: Winter Tunnel with Snow, March, 2006

This image has been removed for copyright reasons

Fig. 58: David Hockney: Late Spring Tunnel, May, 2006

This image has been removed for copyright reasons

Fig. 59: David Hockney: Early July Tunnel, 2006

A major difference between the work of Hockney and that of my own shows the base samenesses are within the single photograph rather than, in his case, over several paintings. Photograph No 89 [Fig. 60] utilizes seven pinholes and therefore seven viewpoints. A vertical, gently curving branch of honeysuckle near the middle of the photograph is seen in various semblances throughout, creating structures of itself within the boundaries set by the edges of the photographic sheet and the number of pinholes used. Light is reflected from this branch with different intensities, depending on and created by the strength and movement of diffracted light waves moving inside the camera chamber. This process of image capture enables me to see this branch in different nuances of its existence and to experience it in other ways by bringing together. As well as seeing, I am experiencing aspects of this branch in diverse ways. Becoming, in this instance, is not resemblance or representation but relationship.

Fig. 60: Meanwhile/Becoming – Photograph No 89 – 2 Tears, 7 Apertures (12 November 2013)

As becoming becomes, multiplicities are present in the differentiated durations and planar depths absorbed within the single photograph. Any

borderlines that may occur between the different becomings merge to form a seamless whole. In Fig. 60 there are no borderlines, there is no delineation between the multiple becomings. The existence of one iteration flows seamlessly into the next as the different trajectories (durations) co-exist contemporaneously.

Doreen Massey writes at length about the multiplicity of durations and this is discussed in Chapter 2. In *Memories of a Sorcerer, III*, Deleuze and Guattari state that 'multiplicities continually transform themselves into each other [and that] becoming and multiplicity are the same thing.'[305] This transformation involves movement in time, which is continuous. In *Negotiations*, Deleuze uses the analogy of movement in sports to explain: 'All the new sports – surfing, windsurfing, hang-gliding – take the form of entering into an existing wave. There's no longer an origin as starting point, but a sort of putting-into-orbit.'[306] Movement is in motion before and after events happen, there is no starting or finishing point, there is only a joining, a taking part and a leaving. Lomax takes up this idea in *Thinking Stillness* where she contemplates this interruption in the movement, looking upon it as an unmeasurable interval of time that has opened up, enabling the creativity of becoming to take place. It is also time for thought.

In *Infinite Thought: Truth and the Return of Philosophy*, Alain Badiou speaks of the world being governed by speed.[307] His desire is to slow things down to allow space for thought, to produce an interruption within the 'ever increasing acceleration' so that 'thinking can construct a time that is its own'; a retardation process that, in its slowing down, produces an interruption in which thinking is given its own time for contemplation.[308] Lomax takes this notion of an interruption in time further and considers it as an opening up of an interval of time that cannot be measured and, though Badiou's retardation might suggest a stifling of time, this stifling enables a *construction* of a time for thought.[309] She suggests a desire to rebel against the obsession with measurement and spatialisation of time to find the space

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[305] Gilles Deleuze and Félix Guattari, *A Thousand Plateaus,* trans. Brian Massumi (London and New York: Continuum, 2004), 274-75.
[306] Gilles Deleuze, *Negotiations,* trans. Martin Joughin (New York: Columbia University Press, 1995), 121.
[307] Alain Badiou, "Philosophy and Desire," in *Infinite Thought: Truth and the Return of Philosophy*, eds. Olivier Feltham and Justin Clemens (London and New York: Continuum, 2003), 51.
[308] Ibid., 40-41 and 51.
[309] Yve Lomax, "Thinking Stillness," in *Stillness and Time, Photography and the Moving Image*, eds. David Green and Joanna Lowry (Brighton: Photoforum and Photoworks, 2006), 57.

within which to find the unexpected, to find an interruption in the movement of time.[310]

For Bergson, the spatialisation of time (duration) is inconsistent with its instant, lived reality. When time is broken down into individual digits, as in the hand movements of a clock,

> 'they become a series of separable instants, consciousness is "situated" in time as a series of temporally disparate mental states, and movement is conceived in terms of relations between static positions. In other words, clock time abstracts from the notion of duration by distorting its continuity.'[311]

Photography interrupts and opens a moment in time, causing perception of the sense of linear time to divide and be understood as traveling in multiple directions. The photographic series describes a duration - that which is past, and simultaneously expresses that which is yet to come – a "not yet", something not in our perceptual possession, or rendered by light.[312] Lomax argues: 'Becoming is not the journey towards a state of being … rather becoming is the movement of being' and this movement 'is the movement that comes with time.'[313] So there is movement and, with movement, there is 'becoming' in the duration (Bergson's *durée*) of a "not yet". In this interruption, nothing happens or takes place in the present because there is only the "what has been" and "what is to come." Time is not frozen but is opened as incalculable time. It is not the linear temporality of Chronos but the non-linear time of Aion, which Deleuze regards as the time that opens in events.[314] An event is not the end of a process because it has no beginning or end and carries no 'determinate outcome.'[315] An event represents 'a momentary productive intensity' as becoming moves through it.[316]

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[310] Yve Lomax, "Thinking Stillness," in *Stillness and Time: Photography and the Moving Image*, eds. David Green and Joanna Lowry (Brighton: Photoworks, 2006), 56.

[311] Cliff Stagoll, "Duration (Durée*)*," in *The Deleuze Dictionary*, ed. Adrian Parr (Edinburgh: Edinburgh University Press, 2010), 82.

[312] Yve Lomax, "Thinking Stillness," in *Stillness and Time: Photography and the Moving Image*, eds. David Green and Joanna Lowry (Brighton: Photoworks, 2006), 58.

[313] Yve Lomax, *Sounding the Event: Escapades in Dialogue and Matters of Art, Nature and Time* (London and New York: I B Tauris, 2005), 7.

[314] Gilles Deleuze, *The Logic of Sense,* trans. Mark Lester with Charles Stivale, ed. Constantin V. Boundas (London and New York: Bloomsbury Academic, 2013), 188 and 186.

[315] Cliff Stagoll, "Event," in *The Deleuze Dictionary,* ed. Adrian Parr (Edinburgh: Edinburgh University Press, 2010), 91.

[316] Ibid.

For Elizabeth Grosz, Henri Bergson is 'the philosopher most oriented to […] time as becoming, as open duration' and that we can only understand time through movement .[317] Grosz maintains that metaphysics, for Bergson, is the only way we can access those indivisible and impenetrable things that science and intellect cannot explain.[318] Bergson develops 'a theory of time in which the past is not the overriding factor and in which the tendencies of becoming that mark the present also characterize the future.'[319] He observes that: 'The pure present is an ungraspable advance of the past devouring the future ...'[320] He speaks of differences: of that which remains the same and of that which differs from itself – the difference between matter and life or duration (*durée*).[321]

In *Bergsonism*, Deleuze speaks of duration and the plurality of times and how Bergson 'never gives up the idea that duration, that is to say time, is essentially multiplicity.'[322] He quotes Bergson from *Duration and Simultaneity*:

> When we are sitting on the bank of a river, the flowing of the water, the gliding of a boat or the flight of a bird, the uninterrupted murmur of our deep life, are for us three different things or a single one, at will …[323]

Deleuze calls these three "durations": 'the flowing of the water, the flight of the bird, the murmur of my life form three fluxes; but only because my duration is one of them, and also the element that contains the two others.'[324] My photographic practice is not conducted in isolation. Many things happen before I walk out into the studio garden to set up the camera: the postman calls, the telephone rings, a car drives by, a door slams. As I situate the camera and wait for lengthy exposure times to pass, I hear children in the playground over the road, a woman shout, the warning cry of an indignant blackbird, a plane fly overhead. These durations are simultaneous, they cannot exist in isolation and so my duration in the garden 'has the power to disclose other durations, to encompass the others, and to encompass

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[317] Elizabeth Grosz, *The Nick of Time: Politics, Evolution, and the Untimely* (Durham NC and London: Duke University Press, 2004), 156.
[318] Ibid., 155.
[319] Ibid., 157.
[320] Henri Bergson, *Matter and Memory* (Cambridge, MA: The MIT Press, 1911), 294.
[321] A term Bergson uses instead of 'time' because of its connotation with the spatialisation and measurement of space and the 'restriction' of movement.
[322] Gilles Deleuze, *Bergsonism,* translated by Hugh Tomlinson and Barbara Habberjam (New York: Zone Books, 2011), 79.
[323] Henri Bergson, *Duration and Simultaneity,* trans. Leon Jacobson (Indianapolis: Bobbs-Merrill, 1965), 52.
[324] Gilles Deleuze, *Bergsonism,* translated by Hugh Tomlinson and Barbara (New York: Zone Books, 2011), 80.

itself ad infinitum.'[325] For Henri Focillon, these 'multiple temporalities' meet and collide and 'advance according to [their] own rhythm [...] largely independent of the rhythm of other domains.'[326]

The process of producing photographs begins the mediation between me and the technology I have constructed. Move the camera body, open the pinhole shutters, change the focal plane – movement of apparatus and photographer interact with the space creating dynamism and fluidity, not stasis. I move around the garden and may pass in front of the camera, picking up fallen apples or broken branches, before I settle down to observe and write in my notebook on the garden bench. This is a quiet time of contemplation when I listen and see and sense what is happening around me before putting pen to paper. This is the interval of time given to me. Everything is in a state of becoming.

After ten minutes of exposure I close the seven pinholes and prepare to take the apparatus inside. The snow continues to fall, causing continuous change to the landscape set before me. I have removed image no.122 from one time-movement, interrupted this particular trajectory, and move it to another that contemporaneously exists with the myriad of others. Light waves inside the camera chamber settle onto the surface of the photographic film, absorbed in varying degrees, and bring visual form to the earlier chaos of diffractive light waves pinballing inside the box. I imagine this a violent and turbulent process until the light waves subside. Is there an immediate settling or are there moments when chemical reaction to the light continues to respond? Does the movement continue?

A robin, its curiosity overcoming any fear, comes to investigate the ground in front of me. As he flicks the snow away searching for food, his path touches mine for an instant before moving away to continue his own course.

My photographs contain structures of specific forms within them that reveal movement in relation to duration and becoming, reflecting the experiential and perceptual process of capture and of being in the space. Though there is difference

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[325] Gilles Deleuze, *Bergsonism,* translated by Hugh Tomlinson and Barbara (New York: Zone Books, 2011), 80.
[326] Henri Focillon, *The Life of Forms in Art,* (New York: Zone Books, 1992), 16.

and repetition, I do not discern movement in the Deleuzian sense. In this becoming I am in a world of vacillations and instabilities where everything is unforeseeable and can move in any direction. This becoming is fragile and unpredictable.

Conclusion

Fig. 61: Meanwhile/Becoming – Photograph No. 56 – 1 Tear, 3 Apertures (16 May 2013)

16ᵗʰ May 2013

Blue sky and clouds, little breeze, mostly cloud cover. Trying to expose for the duration it takes to fire off four flashes with my flashgun, approximately 5 seconds. The back was fully in and I opened all three pinholes.

The practice and research that generated the series of photographs titled *Meanwhile/Becoming* stemmed from my earlier observations and enquiry that identified a gap in the exploration of multi-planar imagery and generated ideas for further investigation around the manipulation of visual space within photographs. I brought to the research a history of fine art photographic practice that has concentrated on the landscape as a genre of investigation. I also brought no preconceptions about how my practice would manifest itself, this would be developed through critical theoretical engagement, application and rationalization determined by my artistic practice. The aim was to create photographs that were

not restricted by the limitations of linear perspective and would relate more to the way humans experience sight.

Though I am naturally drawn to photographing landscapes rather than people, the research arose from an interest in light and matter and how forms are created by light; certain kinds of depictions that I found lacking in traditional Northern European landscape paintings and photographs. My original intention was to concentrate on a place with deep personal significance within the landscape, outside the domestic environment. However, as the experimentation and exploration stages continued, I encountered my landscape of significance in the garden outside my back door (initially used as testing space for the apparatus); a place I know intimately through design and planting over a period spanning more than twenty-five years; how the light behaves with each new season; the effect this has on the growth and decay of the plant life within it.

I had observed earlier that by distorting the Cartesian perspective found with a single lens reflex camera, the visual space changed and invited a more intimate engagement with and for the viewer. This highlighted the propensity that photographs produced by "standard" SLR cameras have of not representing a scene as the viewer would see it (either physiologically or perceptually), neither did it provide the sense of duration, embodiment and movement involved during the photograph-making process. Using layering techniques did not provide the sense of movement I needed to reflect the way human beings regard their surroundings. The visual space had been altered and brought displacement and a shifting reality, yet the results were static and my presence through movement and manipulation was not found in the photographs. It was important for me to find a way to produce photographs that incorporated the notion of me as the photographer (and others) being part of and within that photographic space – a holistic encounter that included technological mediation and challenged human subjectivity rather than the disjointed and distant experience generated by the linear perspective of the SLR camera.

The practice questions are two-fold: how do photographs turn three-dimensional objects into two-dimensions and how can two-dimensional surfaces

126

represent the experience of multiple dimensions? I needed to consider and understand how the single-point linear perspective was constructed to enable the process of deconstruction to begin. Perspectival space is created through geometry and mathematics and is totally man-made, as is the camera that produces photographs with these same characteristics. This results in a disconnection between the viewer and the scene which excludes the viewer to be part of, and experience, the space. The viewer is expected to be positioned at one particular point to fully understand and appreciate the pictorial space being presented. Movement is discouraged and results in a rigid representation of the space. Whereas, when working in the garden I am aware of seeing more than the flat surface of an object directly in front of me. I can "see" around the sides and towards the back of the object through my experience and knowledge of that object and my peripheral vision and proprioceptive awareness of a three-dimensional object.

By asking if there is a way of producing photographs without the Cartesian perspective prevalent in photographs taken with a standard SLR camera, one of the first things to consider was the camera itself. The SLR camera (digital or analogue) did not allow the range of experimentation I felt was necessary whereas the pinhole camera, developed and adjusted to suit my requirements, offered a possible solution. Consequently, I designed and built a multiple aperture pinhole camera with the ability to change the focal length during exposure by utilizing the "bellows" effect of the inner box. Using three pinhole apertures provided three slightly different aspects of the object or objects being photographed so I could see more characteristics of the object. Changing focal depth enabled me to produce photographs that had different points of focus during the duration of the exposure. This was to reflect the way human eyes constantly move about a scene, acknowledging the relationships between objects that define and situate the body's position in relation to the world around them. The design of the camera evolved and was modified during the experimental stages (culminating in seven pinhole apertures) and became part of the research practice.

By introducing multiple viewpoints, the inflexibility of geometric lines that steer our gaze towards some imagined point on the horizon is loosened or removed. Instead, the eyes are free to move around the visual space, unfettered by the directional pull of converging parallel lines. The multiple viewpoints plus the

movement of the camera and the shifting focal planes also reflect the function of saccadic eye movements that position the body in space in relation to other things. This produced the effect of bringing the viewer visually closer to the picture plane and we no longer see "time" stretching out before us. Instead, we are drawn into the space rather than looking at it from a distance; the body becomes a constituent part.

Early in the process I suspected my aim (to create photographs without linear perspective) would be difficult to fulfill with the current methods used because underlying all the research and experimentation lay the fact that I was using a camera, albeit a pinhole camera without a lens, but still a camera that would continually bring me back to the structured photograph of the Cartesian perspective. The photographs made at the start of the investigation and using the original camera design highlighted the restrictions using a limited number of pinholes. They also showed the significance of the horizon as one of several tools used by the fifteenth century mathematicians and painters of the Renaissance, indicating the need to move away from this controlling practice. However, analysis and consideration of theories relating to space, duration and experience have allowed me to push against those seemingly rigid laws of geometricalized space and open up a visual space that questions the apparent hold perspectivalism still seems to have over us today. Eliminating the horizon does remove the focus of the vanishing point to a certain degree, however, drawing together the focal planes was also necessary to reduce the distance the eye had to "travel" into the photograph. This was achieved by utilizing the "bellows" facility that was part of the camera design.

The thesis, *Meanwhile/Becoming*, describes a methodological framework with which to direct the photographic enquiry into light, vision and the idea of a multi-planar landscape. This structure enabled the core elements of the research to develop; through an exploration of Merleau-Ponty's phenomenology of perception and the centrality of the body, Bergsonian and Deleuzian notions of "meanwhile" and "becoming" made within the photograph through movement and duration, and the postphenomenological mediation of technology and affect of nonhuman agency.

Merleau-Ponty's exposition on the phenomenology of perception provided the initial framework to position my research; the idea of the importance of knowing the world through the body. This theoretical stance of classical phenomenological thought has been criticized for its limitations in concentrating on the subject-centred nature of the individual – my experience of phenomena will not be the same experience of another person to the same phenomena. A postphenomenological model was introduced to augment these limitations, aiming to 'extend the boundaries of the phenomenological focus upon the experiencing subject', acknowledging a move away from the subjectival approach towards experience and recognizing the world has an independent existence beyond the encounters of human beings.[327] Postphenomenology focuses on the use of technology and how its implementation affects the way human beings interact with their world. Alongside these two major concepts, I introduced the notion of cultural posthumanism based on the understanding that humankind can, by using technology, enhance its biology/physicality. This encouraged the exploration of unknown theoretical areas to progress existing thinking by questioning past philosophies of human and human nature and to stimulate new notions of human subjectivity and embodiment by observing and developing theories of change and positioning technology in relation to these changes.[328] My research has indicated the necessity to explore these unknown theoretical areas and, as such, identifies a gap in current knowledge.

The combination of embodied perception plus the integration of science (light, laws of nature, chemical reactions) and technology (multiple pinhole camera) has been crucial in shaping my choices, actions and experience of the world. My unique camera is the apparatus with which I interact with the world in specific ways. Its idiosyncrasies and how I handle it and them help determine the final outcome. Posthumanism draws attention to our relationship with technology, how we engage with and how we relate to technologies directly. It recognises the role and the agency of the camera in translating the phenomenal world into some kind of cultured or organised space. The internal logic of the camera, a self-organising entity that has forms of agency, has been largely ignored. We tend to use the

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[327] Jennifer J. Lea, "Post-phenomenology/Post-phenomenological Geographies," in R. Kitchin and N. Thrift eds. *International Encyclopedia of Human Geography* (Oxford: Elsevier, 2009), 374.
[328] Andy Miah, "A Critical History of Posthumanism," in *Medical Enhancement and Posthumanity*, eds. Bert Gordijn and Ruth Chadwick (Dordrecht, Netherlands: Springer, 2008), 71-94.

camera as the hand-maiden of the photographer to represent the world, not seeing the camera as a system – yet we are part of the system – the assemblage of the system, Bennett's 'agentic assemblages.'[329] Vilém Flusser recognised that the camera at its most basic is a system and that we are working to the system. As a consequence, we do not have total freedom and photographers become "functionaries". 'This is a new kind of function in which human beings are neither the constant nor the variable but in which human beings and apparatus merge into a unity.'[330]

Utilizing Henri Bergson's notion of duration as a qualitative multiplicity allowed me a way to differentiate between time and space. Quantitative multiplicity separates things spatially from one another into a homogeneous space whereas qualitative multiplicity allows numbers of things to be regarded as a whole, indivisibly, thus providing a heterogeneous photograph more closely aligned with how and what humans see. It gave me a degree of freedom within the image-making process to consider duration, not as a succession of static time-slices but as a state of becoming, a 'genuine continuous production of the new.'[331]

The work is situated within the *meanwhile*, a virtual space between Deleuzian "events" where light, through movement, facilitates the creation and development of forms onto the material surfaces of film and photographic paper. The importance of events is time. For Deleuze, the present is not a fixed point, it is indeterminable so an event will never come to pass because it is either something which has already happened (the past) or it is still to come (the future). It is not something that is occurring (the present).[332] This is the time that Lomax calls unspatialised time, which cannot be measured by the hands of a ticking clock.[333] It is an interruption, a time that opens in events.[334] So my image in its state of being formed is the event, not the fully formed photographic image that is produced in

[329] Vilém Flusser, *Towards a Philosophy of Photography* (London: Reaktion Books, 2012); Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Durham and London: Duke University Press, 2010), 111.
[330] Vilém Flusser, *Towards a Philosophy of Photography* (London: Reaktion Books, 2012), 27.
[331] Doreen Massey, *For Space* (London: Sage, 2014), 23.
[332] Gilles Deleuze, *The Logic of Sense,* trans. Mark Lester with Charles Stivale, ed. Constantin V. Boundas (London and New York: Bloomsbury Academic, 2013), 73.
[333] Yve Lomax, "Thinking Stillness," in *Stillness and Time, Photography and the Moving Image*, eds. David Green and Joanna Lowry (Brighton: Photoforum and Photoworks, 2006), 57.
[334] Gilles Deleuze, *The Logic of Sense,* trans. Mark Lester with Charles Stivale, ed. Constantin V. Boundas (London and New York: Bloomsbury Academic, 2013), 72-73.

the darkroom. These events are open ended, never complete and forever mobile multiplicities that are parts of other events and traversed by other simultaneously occurring trajectories, therefore open to change and transformation.[335]

"Becoming" is *in* the meanwhile, the timespace where becoming becomes, where movement can be a disruptive force as well as a productive one. Disruption is a positive function as movement cuts through the lines of perspectivalism, taking the eye from some imagined centric point on the horizon. Physiological movement of the eyes as well as the physical movement of the camera continues to break down the formal construction of one-point linear perspective. The photograph does not show the whole "event" but, as Brian Massumi eloquently explains,

[it] moves to the edge or recedes infinitely into the shadows. It isn't an outline or boundary, but an indeterminate fringing. It is not a closure or framing or subsumption. It is the openness of closed form, form continually running into and out of other dimensions of existence.[336]

This openness results in each photograph being unpredictable and unpremeditated but with the potential for new forms to alter the content.

The multiple pinhole apertures and moving focus enable different iterations with differing emphasis of elements to be formed on the photographic film surface, creating spaces or intervals between the structural parts. Concentration of vision in specific areas shows differences in forms and non-forms that enhance the perception and consciousness of the space, which manifests in both a physical and immaterial reality. The research identified that the multiple viewpoints present a multiplanar view that more adequately expresses the duration of the time and movement in a specific site as a lived experience.

These techniques, brought into a singular photograph in order to disturb binocular perspectives, introduced the relationship between space and time into the

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[335] Gilles Deleuze and Félix Guattari, *What is Philosophy?* trans. Graham Burchill and Hugh Tomlinson (London and New York: Verso, 2013), 157-8; Gilles Deleuze, *Negotiations*, trans. Martin Joughin (New York: Columbia University Press, 1995), 159-160.
[336] Brian Massumi, *Parables for the Virtual*: *Movement, Affect, Sensation* (Durham and London: Duke University Press, 2002), 174-5.

practice where the experience of space is structured through duration and movement and the experience of time is a dimension of space. Time has no beginning or end or indication of length.[337] Like the reading of a Chinese or Japanese scroll, space moves through our hands in time, unrolling and revealing the narrative with successive turns as a multi-projection space.

The scratches on the surface of the photographic medium ground the photographs in the analogue technology employed. They show the marks made by my nails and the rough edges of the wooden chamber as I physically manoeuvre the photographic film or paper into and out of the camera, tucking the edges behind the wooden batten holders to lodge the film medium in place. They are surface scratches but they are made at the same time as the photograph and are therefore an integral part of that photograph, indicating my physical presence in the process. By moving in front of the camera at times during exposure I am also present *in* the photograph, although my form does not record on the photographic surface because of the long exposures. Occasionally, the solid black rectangles of the battens are seen in the photographs due to the position of the camera face in relation to the perpendicular. The tears or cuts have been made by me to differentiate the individual photographs for logging and cataloguing purposes. This was a logical way of dealing with a potential problem in a dark space and provided a system of reference when writing about the settings and conditions at the time of making, all vital during the experimentation process. The scratches, tears and cuts are reminders of the marks we make on the world and the marks the world makes upon us.

None of this research would have been possible without light, in all its glory and guises; the fleeting and ephemeral nature of light that changes every second through the vagaries of weather conditions found in the north-west of England; the slow accumulation of light through the brass pinhole plates; the chaotic diffraction of light waves rebounding around the darkened chamber; the transposition of that light becoming form in the photograph through catalytic agent and chemical

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[337] See Gilles Deleuze, *Negotiations*, trans. Martin Joughin (New York: Columbia University Press, 1995), 122 and his reference to surfing where there is no specific starting point to joining the wave but a "taking up" into the motion and then a "leaving"; Doreen Massey, *For Space* (London: Sage Publications, 2014), 119 and her reference to a sphere of multiple trajectories where the duration of one's own trajectory will touch upon and join the trajectories of others, contributing to them before following another path.

reaction. Events of light and time come together in the space that is the three-dimensional body of the camera and the two-dimensional surface of the photographic film.

The research naturally lends itself to thinking about realism in the landscape or the materiality of the object. However, the focus is on the durational thinking about multi-planar vision; meanwhile, where the camera captures an image that mimics the saccadic movements of the eye; and the becoming of the viewer within the garden space.

My research is timely in that it acknowledges the current critical theoretical positions discussed within science, technology, sociology, communication and philosophy and the removal of traditional boundaries between the human, the nonhuman and technology. My photographic practice acknowledges the importance of the centrality of the body, the mediation *by* technology and *with* human-plus-technology and the agential significance of nonhuman entities in investigating and perceiving the world. This methodology, together with thinking about the posthumanist shift in perceptual modalities, has enabled me to clearly understand the direction and implementation of my research in the development of my practice. This also allows practitioners to think about sidestepping traditional theoretical associations by using a technique that is also situated in a posthumanist context that searches outside the humanist overemphasis of subjectivism, refusing a single point subjectivity and acknowledging multi-modal perception. This offers a new way of thinking that will always take into account the technological factor of the human's looking. The manifestation of my photographs offers a different way of considering landscape photography and the experience of viewing. I propose that my methodology as outlined can be utilized and taken to any space imbued with personal connection and offers scope for further study as a new field of knowledge for others to draw upon.

The materiality of analogue and the fact that I work with a camera with no lens has been little discussed in this thesis and this is something to be developed as further research. My camera does not make images through geometric optics but through physical optics and the image "captured" is not seen by me directly as part of the process of making. I do not see the framed image in any way prior to the

133

taking and making of the image. I have discussed my body as part of the apparatus and suggested performative acts, but my eye is not directly linked to the camera apparatus, a significant point in relation to the role of the photographer. My viewing as the photographer and the condition of the image in its analogue state, the materiality (surface) of the photographic object itself (whether film or paper negative), is research to be taken forward.

Appendix I – Diary Entries

f.4 20 secs 5.00 grade — better
f.4 10 secs 5.00 grade — much better.

Saturday 8th December 2012   Image No.1
Weather cold but bright with a clear sky. Set up camera looking towards the back of the house and left the box close-coupled. Exposed for 45 mins but the resulting image was too bright so will try 35 mins next time or take more accurate light meter readings. I will mark the inner box to indicate the distance from the pinhole to the photographic paper.

Image No.2
The second image taken had the back box extended 4 inches out + the expose was the same 45 mins. Again too much light in the camera so reduce next time. Image clearer though as more separation of the individual elements.

Sunday 9th December 2012
One image only taken today. Weather was cold + bright again. Positioned the camera looking at the apple trees against the wall in the back garden. Exposed for 45 mins with back out by 4 ins. Again too long an exposure.

Tuesday 1st January 2013
Happy New Year!

Weather quite changeable with cloud then sunshine breaking through, occasional rain but I thought I'd have a couple of attempts to start the new year. Decided to divert the camera to the back of the garden, pointing slightly downwards to get rid of the horizon – hopefully. Suspect the horizon will still show. Mounted for the first time on the tripod but I suspect this will provide too much movement as the wind would come in gusts.

The first image was taken with an exposure time of 20 mins. I used resin coated b+w photographic paper. The back of the camera was not pulled out at all.

The second image was in the same position as the first one but this time with the back pulled out by 4 inches and a 20 minute exposure. This time there was no sunshine so not sure what to expect.
I must sort out the focal lengths more accurately and use a light meter to get more consistent results.

Jan Fyfe: Meanwhile/Becoming – Photograph No. 28 December, 2012

I'm hoping that by using more pinholes the areas of overlapping images will be greater as it is this overlapping of image + time that interests me. I suspect, though, I may end up within an almost impossible task of deciphering these images but that's fine. That's part of the challenge.

No 78   3 Tears.
This time I've cut the exposure back to 5min with all other conditions remaining the same. The light has remained flat for No 77 + 78 + there's even a threat of rain.
I intend to take these into one this afternoon to develop them before I go any further. I need a ballpark figure to work with.

23 August 2013   9.00am

There is a promise of rain from lunchtime onwards so I'm taking this opportunity to take a few more images with the 7 pinholes open. The results from the last shoot were promising so I'm just going to increase the exposure time. The weather is warm + quite bright but with a covering of high cloud so no sunny episodes for now. There is a slight warm breeze that hardly moves the leaves. No birds, all is quiet.

No. 79   1 Tear
All pinholes are open for the same length of time, ie 15 mins with the back fully in. I've positioned the camera further back from the border than previously which may result in slightly more focused images.

I've also numbered the pinholes now to make identification easier.   O1   O2
                                                                      O3 O4O5
As you look at the front   O6   O7
face of the camera

No. 80   2 Tears
This time I've exposed all the pinholes for 200 minutes. I think this may over-expose but I need to take it to extremes so I know my parameters. The light is getting a little brighter also so this will probably increase the chances of over exposure. I'll try 10 mins cap for the next one.
Friend Sian suggested I use the time to do chores around the garden + that the exposure times should correlate to that particular chore, so picking apples could be 5 mins, or weeding 30 mins, and so on. It's an interesting idea + perhaps needs consideration further, though at present it feels like I would be moving away from my
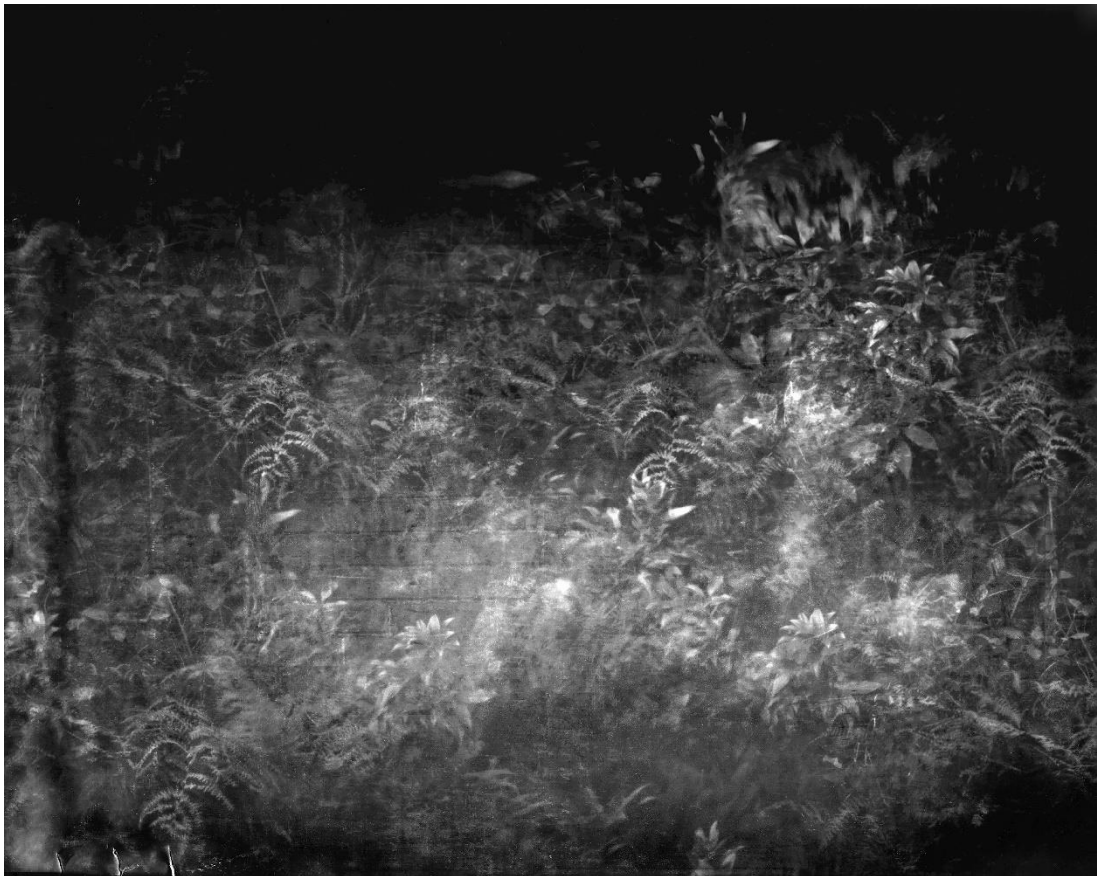
Jan Fyfe: Meanwhile/Becoming – Photograph No. 78 - 20 August 2013, 11.50am

136

original intention – which makes me think what that original intention was. I'm capturing multi-viewpoints on the one image but does that enable me to move _into_ the image more – as if I were walking _into_ the garden rather that looking _at_ it from a distance. I'm not sure. The multi-viewpoints seem to flatten the image + make it more impenetrable so I've found something I wasn't looking for. This seems to happen more when I don't alter the focal plane during exposures. Changing the focal planes + using different pinholes as I do so may limit this flattening effect. I suppose its like building up my own perspective within the image but, there again, I wanted to move away from allowing perspective into the pictures. Maybe what I am attempting is actually impossible with the methodology I am using. The Chinese paintings I am interested in having no (or very little) suggestion of perspective so keeping the focal planes close to one another I think is important.

No 81 3 Teens

Pinholes 2 + 6 are loose so the shutters need tightening.
This is a 10 minute exposure with all 7 pinholes open + the back in fully. The weather conditions remain the same.

I've just picked the first apples of the season and they are enormous. Just one apple would make an apple crumble and I've got loads of them this year. Lots of chutney + apple pies methinks. Maybe I should have the camera facing towards me and what I'm doing so that I am in the image but not very clearly as I move around, or maybe I don't appear at all but I know I've been there and am in it. I'm sitting here on the bench waiting for the exposure to end and I've got a beautiful hosta at the bottom of the garden which seems to have been ignored by the slugs + snails this year, unlike most of the others. I think I should record its beauty – so this one is just for me!

No 82 4 Teens

Because its quite dark in the bottom corner I'm using a 15 minute exposure with all 7 pinholes open + the back out. The tripod is positioned about 3 feet from the hosta.
The more time I spend in the garden taking pictures I realise how much I love my garden. When we bought the house 21 years ago I actively disliked the house but fell in love with the garden and this was my reason for going ahead with the purchase. For practical reasons it was perfect for us as we had a large + lively dog and our first baby due within the month. It was a
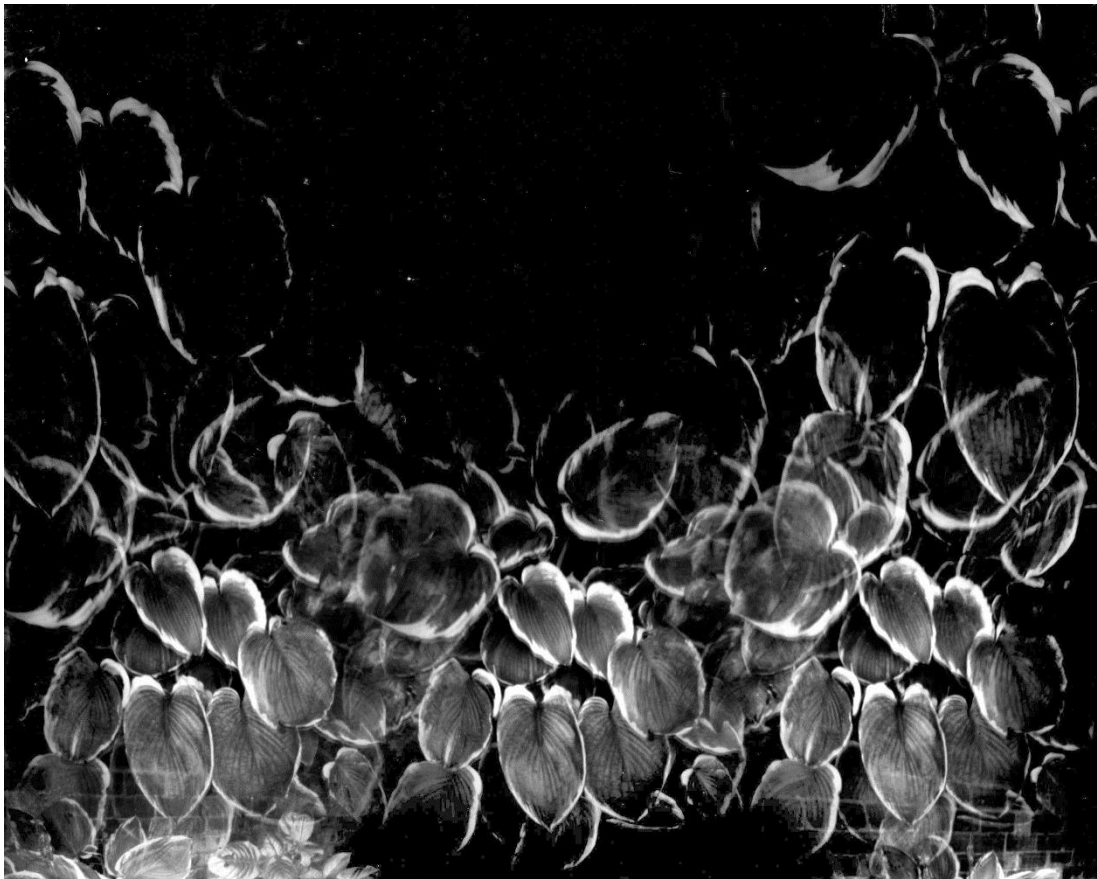
Jan Fyfe: Meanwhile/Becoming – Photograph No. 82 - 23 August 2013, 9.00am

12 November 2013   2.30pm

It's very cold today but clear skies and sunny though the sun is too weak to make much of a difference to the temperature. Days like these will get rarer as we move towards winter so I must be grateful for what I'm given.

Image No 88   1 Tear

All 7 pinholes are open for a 10 minute exp. with the back in fully. I was interested to see what the bare bones of the cutback honeysuckle would look like. I'm also interested to try taking a photo of the apple tree covered in apples still. The colour of the apples will be lost but it might make a good image. The colours in the garden are glorious at present so maybe I should think about colour again. The thought fills me with dread. My hands are frozen & stiff.

Image No 89   2 Tears

All 7 pinholes are open for 15 minutes exp. with the back fully in. I've gone to 15 mins to see if the longer exposure will allow detail to come through at the top of the image. With the hosta pictures there was this area in the middle towards the top that remained under-exposed. There is the danger, of course, that the rest of the image is over-exposed but

I may be able to pull it back in Photoshop. This garden of mine is a very familiar place. I know more or less every plant & tree in it and how they grow & behave during the year. The large lime at the bottom of the garden has shed nearly all its leaves now & the shape of the tree is more evident. A lone magpie sits near the top rattling out its danger cry for no reason apparent to me. No nest, no rivals, no predators. Maybe it's me he's taken a dislike to. The sun has come out & lights up the top of the lime tree and everything is golden, the dead and dying leaves like gold doubloons decorate the tree, shivering in the breeze. I'm getting colder by the minute. I realise that there is one aspect I have ignored in this garden and that is the grass. I'm not sure why.

Image No 90   3 Tears

To try & reduce the possibility of over-exp. I've pulled the back out by 2 inches this time but keeping all 7 pinholes open for 15 mins.

Image No 91   4 Tears

Directed towards the apple tree, all 7 holes were opened for 10 minutes with the back fully in.

Jan Fyfe: Meanwhile/Becoming – Photograph No. 89 - 12 November 2013, 2.30pm

Appendix II

Multiple Pinhole Camera Design
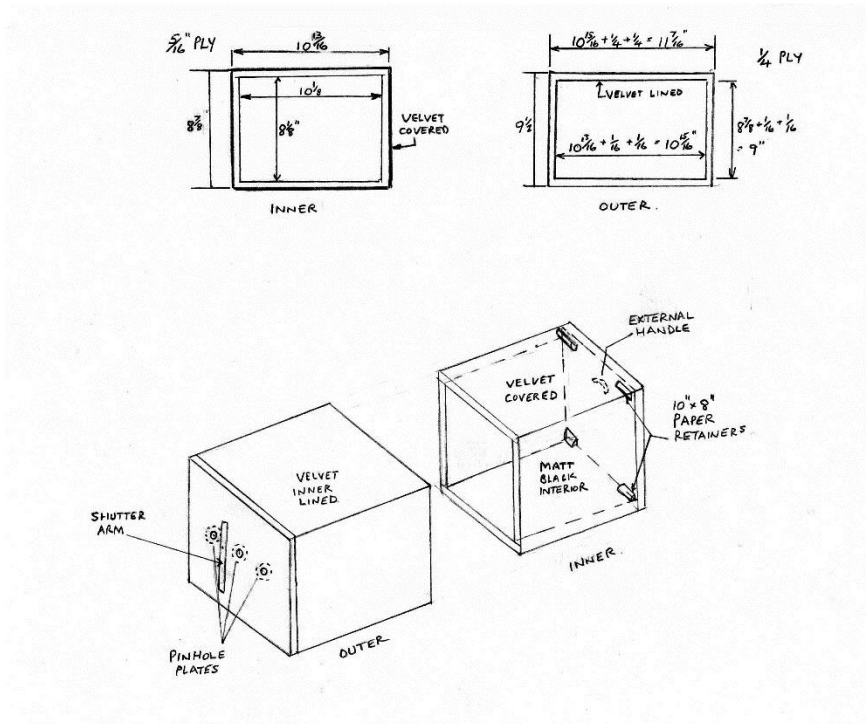
Original Sketch Design for Multiple Aperture Pinhole Camera (Three Pinholes)
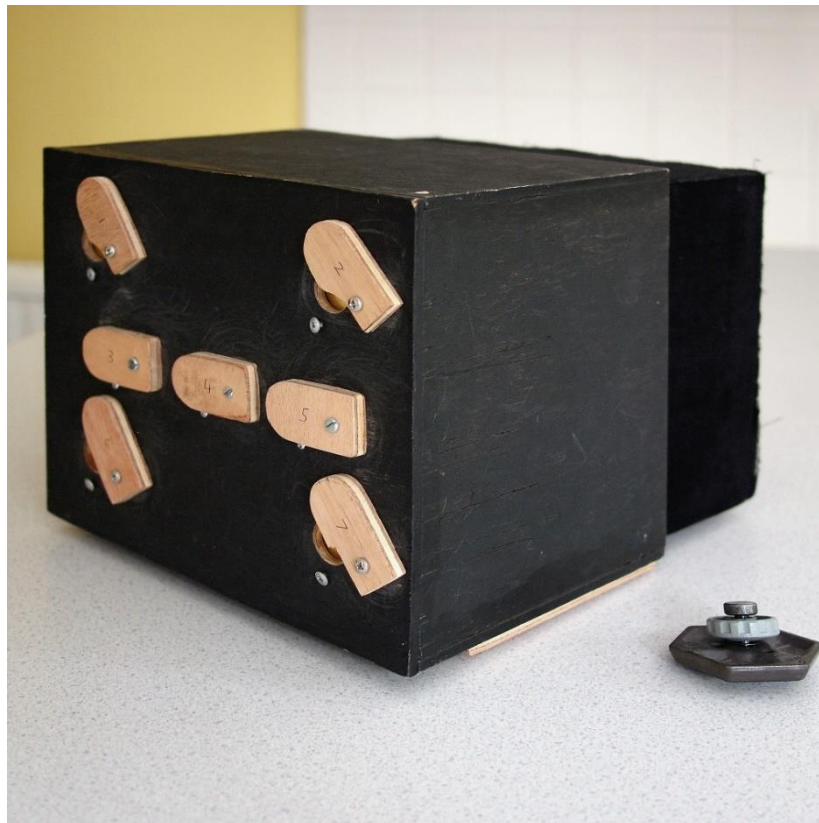
Jan Fyfe: Finished camera with seven apertures
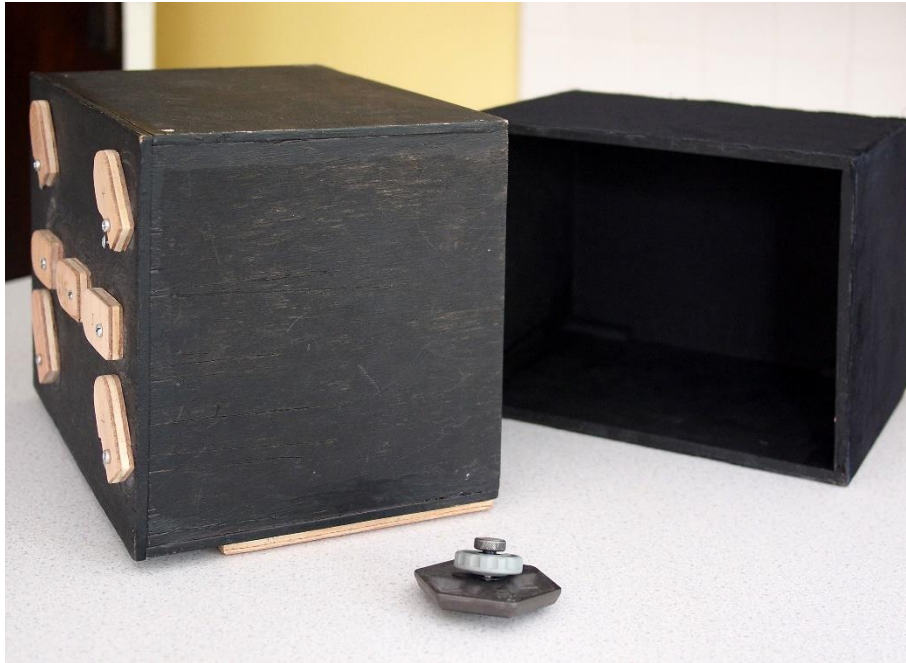
Jan Fyfe: Finished camera showing the two main component parts and attachment for tripod

Jan Fyfe: The camera in situ at the rear of the garden

Appendix III

Installation Considerations at Testing Times

The first opportunity for testing out my photographic work was a residency during the week of 7-11th November 2016 when I was provided with a small blanked out room with three usable walls of various sizes. My intention was to try out different scales of photographs from the very small (2in x 2.5in) to the very large (2.5m x 2m) with various sizes in between as well as different finishes and textures. I also had the opportunity of projecting work onto a plain wall using white and black backgrounds, again using different sizes.

Whilst testing the installation of some of my photographs with a view to the final exhibition, I observed that large images (approximately 2.5m x 2m) were visually impactful from a distance but also invited the viewer to move closer to inspect the detail, thus linking the movement and position of the body to the photograph. The matt surface of the photograph was no barrier in encouraging the eye to roam over the presented space inviting the viewer to move (visually) deeper into the photograph seeking out forms within the darkness. The following image was taken as a record during an installation testing time, the blur indicating movement of the plant life throughout the duration of the exposure.[338]

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[338] Exhibitions are where meaning is constructed, considered and, at times, deconstructed, but are places where photographs (in this instance) communicate something, sometimes something other than originally intended or imagined at the time of taking. They are opportunities to learn, receive feedback from peers and assess the successes and failures of the work. See Shirley Read, *Exhibiting Photography* (Burlington, MA: Elsevier, 2008) for a comprehensive practical guide to exhibiting work and Appendix III for details on the testing time for exhibition of the work titled *Meanwhile/Becoming*, 2017.

Jan Fyfe: Interim Testing Installation of Meanwhile/Becoming Photographs, 2017

Supervisors, tutors, colleagues and both undergraduate and postgraduate students were invited to visit the space and make comment. Notes were made of my observations and any comments and suggestions offered.

Jan Fyfe: Same Photograph – Different Scale and Finish

The following notes were taken during the testing week:

- Large image approx. 2.5 x 2m, matt surface, greyscale. Visually impactful from a distance and invites the viewer to move closer to inspect the detail.

- Needs to be positioned up from the floor to coincide with its position in the garden.

- One student felt she would get closer to the photographs if they were the size of the original negatives (10n x 8in). She instinctively moved to within approximately 6-8in of the photographs on the wall so she could see the detail and felt these were more intimate and personal.

- Consider placing on a black wall so the image emerges out of it.

- The repeated elements are not always obvious to viewers who do not know how it was constructed and pointing them out seems to encourage the attention of the viewer to start looking more closely, probably to find the repeats for themselves. Encourages the eye to roam and search.

- The shiny gloss finish on some of the photographs seems to act as a barrier, adding a layer between the photograph and the viewer and points more towards the photograph being the "traditional photograph" that most people are familiar with.

- A seat in front of the larger image would encourage time being spent to see all the tonal subtleties that appear out of the darkness – 6-10 feet away?

- Dust on the images does not enhance the experience of looking into the image because it emphasises the surface and my intention is for the viewer to move through the surface into the space of the image. This is also the reason for not using a glossy or textured surface on the final prints.

- Greyscale is probably the best reproduction rather than a colour one because of possible colour casts so the paper used for final prints will need to be tested comprehensively.

- The black bars are not always evident, especially at the bottom edge – the way the light enters the camera chamber is the probable cause and whether the front face of the camera is perpendicular to the ground. In the majority of cases the camera is looking slightly downwards to eliminate the top of the wall – to lose the horizon and reduce the effect of linear perspective. This lessens the amount of light falling in a particular area.

- These bars, as well as scratches and tears, ground the photographs in analogue. They exist because of the technology utilized.

- In the very basic black box of the camera chamber, battens have been positioned in the back four corners to lodge the photographic film or paper behind and hold in place for the duration of the exposure. The tears and cuts are made to differentiate the individual papers or film for logging and cataloguing purposes. This seemed the easiest way of dealing with a potential problem in a dark space and provided a system of reference when writing about the settings and conditions at the time of making. This was vital for the experimentation process.

- The scratches result from the physicality of loading and unloading the film or paper into the chamber and are made by my nails and from the rough edges of the battens and wooden sides of the camera. They are reminders of the marks we make on the world and the marks the world make upon us. Though they are surface scratches, they are made at the same time as the photograph is made and are therefore an integral part of the photograph, indicating my presence in the process.

- Dust, though constantly with us, is not usually seen by the eye as definite marks and do not add anything of note to the experience of looking other than to distract and take the eye somewhere else first. It becomes a two-fold process, seeing the dust, then looking behind it. Removal of dust particles is necessary to prevent this.

- Referring to glossy or textured surfaces, this is not how we generally view the world, unless looking at hard reflective surfaces, and the garden has few, if any, of these. I do not view the garden with a glossy surface, I do not view it through extra layers so why would I include these in any final images?

- These photographs include the presence of the photographer in the space and although moving in front of the camera during exposure does not record on the photographic film, there are elements embedded within the final outcomes that will relate to my presence and movement.

- Consider the haptic opposed to the optic – not so much regarding the touch but more about the haptic gaze with no focal point. These photographs do not have any specific focal point which allows the gaze to move around and gather information from a variety of sources.

144

- The largest size print does seem to invite the viewer to walk into it – one observer said she felt it was a little like Alice in Wonderland stepping into another space/narrative/time – they were drawn in. She also thought the initial impression was that the photograph was printed onto fabric giving a feeling of fluidity and movement.

- The dark areas of the photograph link to the velvet lining as part of the camera construction to prevent light leaks in the chamber. Velvet can be regarded as seductive and these photographs shown in a dark space would slowly reveal themselves out of the darkness.

Jan Fyfe: Image Projected onto Wall

- Projecting the image may prove problematic when it comes to the very obvious pixelation when getting close to the image. The viewer would have to contend with this distortion if looking more closely at the image on this large scale.

- A possible way around this would be to utilize a television rather than a projector and iPads could be made available, though iPad use with the

projector does not allow the image to be projected on a screen. A television screen should have a better resolution.

- Projection from the front precludes the viewer from moving closer to the image because of the shadows created when standing between projector and screen. Back projection would eliminate this.

- If these limitations could be overcome, I envisage a dark cube that the viewer would enter to be completely enveloped by the images – one on each wall of the cube and all back projected so this cube would need to be in a space big enough to incorporate the cube and the peripheral equipment. This cube refers to the black box the images were made in.

- One advantage of projection would be the cost implications, assuming the equipment could be sourced from the university and the structure built by the technicians, because projections cost nothing. The cost of four very large prints may be prohibitive.

- Four large prints could be positioned in the same way as the projected ones but internal lighting would be necessary, probably spotlights, again in a dark cube.

- The idea of showing the work in a dark space is taking precedence especially with the idea of being inside the camera, as in the camera obscura, though Crary states 'that the camera obscura, in its dominant form as mass entertainment, presented images to its audience in a non-physical form. Each spectator was physically separated from the image they saw projected on a screen or wall' and the world they viewed arrived 'through a very small hole […] down the funnel of perspective.[339]

When considering the possibility of producing a book to accompany the thesis submission, the comments made leaned towards using 10in x 8in prints or slightly larger. The overall comments on preference in scale came down to the largest prints and the 10in x 8in prints, nothing smaller, and not to bother with the sizes in between. From *On Photography – In Plato's Cave*, Susan Sontag states that: 'For many decades the book has been the most influential way of arranging (and usually

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[339] Jonathan Crary, *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* (Cambridge MA: MIT Press, 1992), 26-66; "Expanded View Photography: The Rejection of Central Perspective in Art," Academia.edu, Last modified June 2010, accessed June 28, 2014, http://www.academia.edu./5517149/Expanded_view_photography_the_rejection_of_central_perspective_in_art

miniaturizing) photographs, thereby guaranteeing them longevity, if not immortality – photographs are fragile objects, easily torn or mislaid – and a wider public. The photograph in a book is, obviously, the image of an image. But since it is, to begin with, a printed, smooth object, a photograph loses much less of its essential quality when reproduced in a book than a painting does.'[340] She goes on to say: 'While a painting or prose description can never be other than a narrowly selective interpretation, a photograph can be treated as a narrowly selective transparency.'[341] The materiality of the photograph, actually holding it in your hand, it lost when positioned on a wall either a physical print or projection – see Crary's comment above.

I had a second opportunity to test the large pieces of work (2m x 2.5m) in early 2017 in a purpose-built blacked out space within the university. Following on from the initial testing time, I had decided that projection was not a viable option and that four large photographs could be overwhelming in an enclosed dark space. Instead I would use two photographs at opposite ends of the cube, though it would now need to be rectangular to accommodate a seating arrangement in the middle. The following points were tested and considered.

- A light-tight, black painted, double-skinned construction with support battens would be necessary with a centrally positioned doorway.

- Access to the dark space will be through an offset doorway covered with black-out material to minimize light entering.

- Internal lighting (probably spotlights) will be positioned at ceiling height and hidden by a baffle arrangement so the light source would not be obvious.

- Photographic prints will be approximately 2m x 2.5m and positioned off the floor at a height to correspond with the position in the garden. The amount of wall space around the prints will also be considered but will be subject to the internal dimensions of the finished structure, which will have been discussed beforehand. Because of their size, they will need to be printed in four sections and placed together. The prints will not be framed to allow the

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[340] Susan Sontag, *On Photography* (London: Penguin, 1978), 4-5.
[341] Susan Sontag, *On Photography* (London: Penguin, 1978), 6.

edges to blend (in part) into the black background but, because of their size, they may need to be fixed to hidden battens for support.

- Sufficient distance needs to be allowed between the prints and the seating position which would be placed centrally in the space and equidistant from each print. The seating will consist of a bench that can be utilized in both directions and be of sufficient size to accommodate the maximum number of people recommended for the space.

- Consideration will be given to the number of people within the space at any one time. Four to six persons maximum is envisaged.

- Consideration will also be given to ventilation of this space with fans to dissipate any heat build-up or suitable material covering the structure to allow movement of air through it.

- The outside skin of the structure will be painted black and text from the submitted thesis will be positioned at various points on the outside to accompany the prints inside. The idea is to start a conversation between the photographer, the audience, the space, the work and the written word rather than provide an artist's statement per se.

- The installation design has been considered to produce a relevant interpretation of the work and the context in which the work was made to underpin understanding of the concepts behind the photographs.

APPENDIX IV

Brief History of Garden Design

Garden design emerges from two distinct models: orderly paradise and a more "natural" asymmetrical model.[342] Orderly paradise was devised in Persia with 'a wall around it to exclude the messy world.'[343] Babur, the Mughal emperor, took this premise to India where he constructed 'walled, symmetrical havens built around wells [amid the] heat and chaos [of] dusty plains.'[344] Italian Renaissance gardens like the Villa Medici, c.1544 and the Villa d'Este, c.1550, followed formal traits using geometric principles in laying out the garden, resulting in regular and symmetrical placement of trees, fountains, flower beds and statues.'[345]

The asymmetrical model was developed in countries that were not under the same pressure to protect themselves from nature.[346] Japanese garden designers perfected the seemingly casual "natural" world in a precise and contrived way with each area having a distinct identity and importance, balance and harmony. Chinese designers also constructed asymmetrical miniature worlds but their lines were crooked, never straight, allowing for layers of discovery around corners and within hidden spaces.[347]

Religious and philosophical viewpoints that have shaped Eastern and Western cultures show distinct differences in garden development and differing architectural features create distinct styles. There are open sided canopies (*chhatri*) found in warm climates that allow the breeze to pass through and the shaded arcades of Spain opening onto garden patios, the light screens of China and Japan that divide dwelling space and garden and the glass walls of Europe and North America.[348]

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[342] Charles W. Moore, William J. Mitchell and William Turnbull Jr, *The Poetics of Gardens* (Cambridge, MA: The MIT Press, 1988), 13.

[343] Ibid., 13.

[344] Ibid., 13.

[345] Allen S. Weiss, *Mirrors of Infinity: The French Formal Garden and 17th-Century Metaphysics* (New York: Princeton Architectural Press, 1995), 93.

[346] Charles W. Moore, William J. Mitchell and William Turnbull Jr, *The Poetics of Gardens* (Cambridge, MA: The MIT Press, 1988), 14.

[347] Ibid., 17.

[348] Charles W. Moore, William J. Mitchell and William Turnbull Jr, *The Poetics of Gardens* (Cambridge, MA: The MIT Press, 1988), 8.

British cottage gardens for the working classes emerged in Elizabethan England but their stylized reinvention grew in the latter part of the nineteenth century as a reaction against the rigid structures of English estate gardens of the seventeenth century. The descendant of the cottage garden is the domestic or private garden associated with many dwelling houses today, 'which may variously comprise lawns, ornamental and vegetable plots, ponds, paths, patios, and temporary buildings such as sheds and greenhouses' designed, moulded and shaped by human hand.[349]

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[349] Kevin J. Gaston et al., *Urban domestic gardens (IV) the extent of the resource and its associated features*. Department of Animal and Plant Sciences. (Sheffield: University of Sheffield, 2005).

Appendix V

Range from No 1 to No 124 - blank or failed images are not included in this catalogue
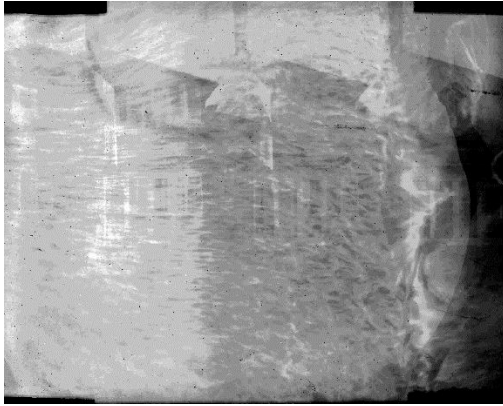
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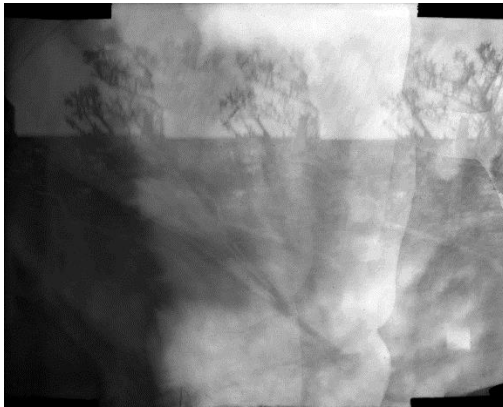
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Image 004 – Studio Test

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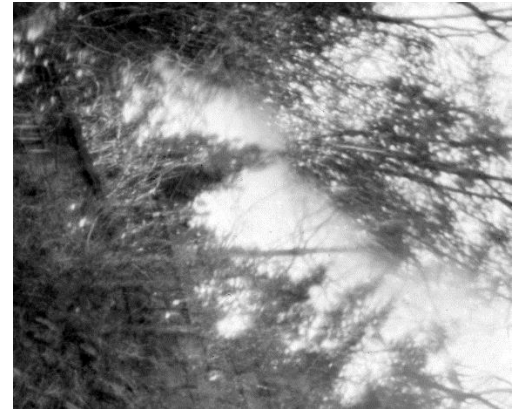
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Image 008 – 12 January 2013

Image 010 – 14 January 2013

Image 011 – 14 January 2013
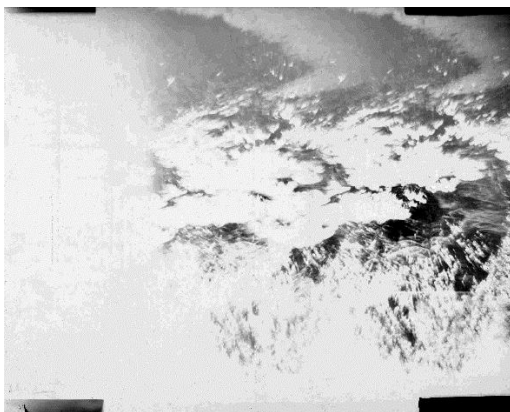
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Image 018 – 22 January 2013

Image 020 − 27 January 2013

Image 021 − 27 January 2013

Image 022 − 27 January 2013

Image 023 − 27 January 2013

Image 029 − 15 February 2013

Image 036 − 4 March 2013

Image 037 − 4 March 2013

Image 039 − 4 March 2013
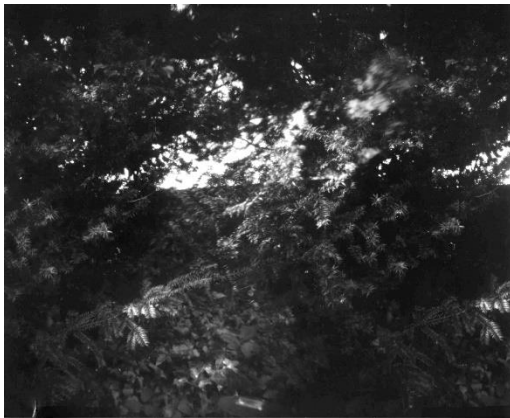
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Image 042 − 5 April 2013

Image 042 − 5 April 2013

Image 043 − 5 April 2013

Image 044 – 5 April 2013

Image 044 – 5 April 2013 Mirrored

Image 051 – 21 April 2013

Image 055 - 22 April 2013

Image 056 - 16 May 2013

Image 057 – 16 May 2013

Image 058 − 16 May 2013

Image 059 − 16 May 2013

Image 067 − 27 June 2013

Image 070 − 4 August 2013

Image 073 − 6 August 2013

Image 074 − 6 August 2013

Image 075 – 6 August 2013

Image 077 – 20 August 2013
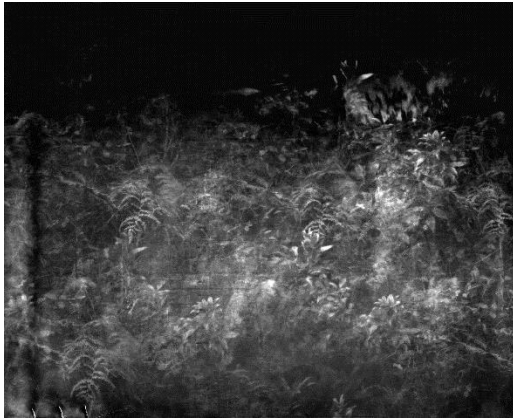
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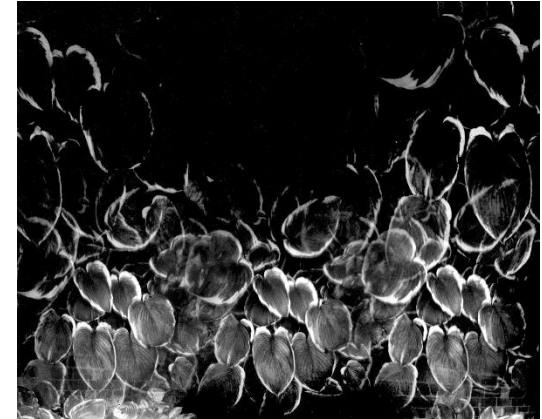
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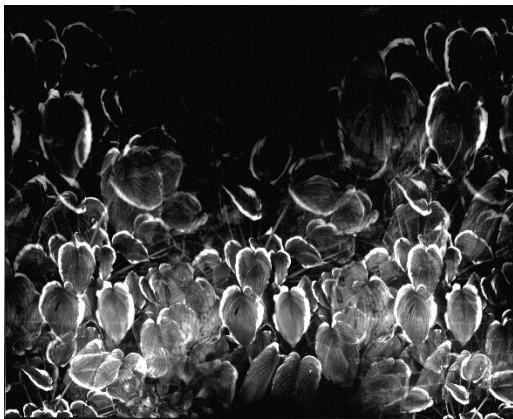
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Image 091 – 12 November 2013

Image 095 – 27 January 2014

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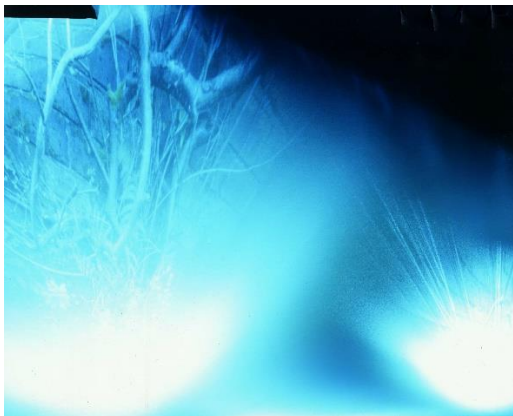
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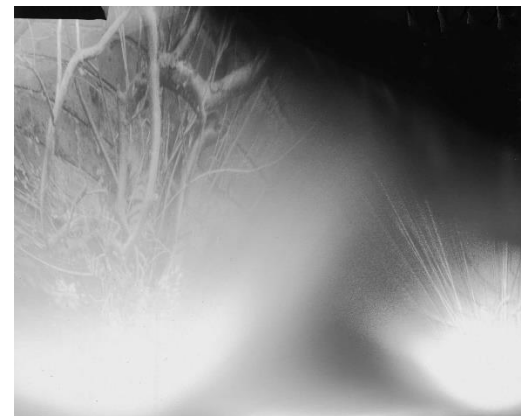
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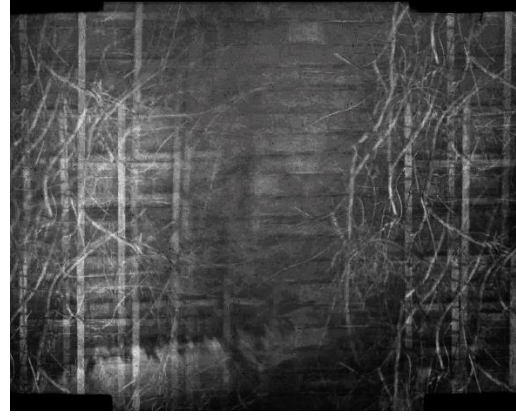
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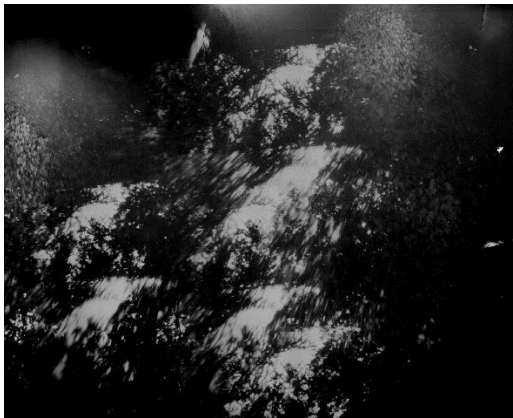
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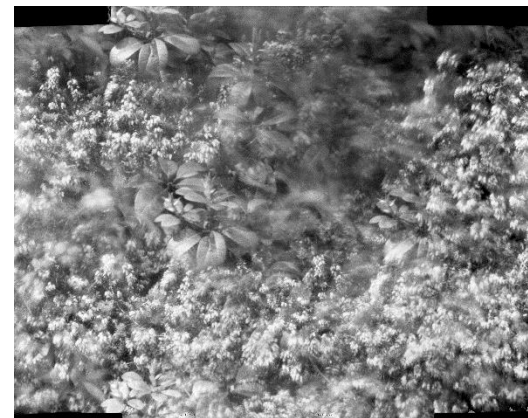
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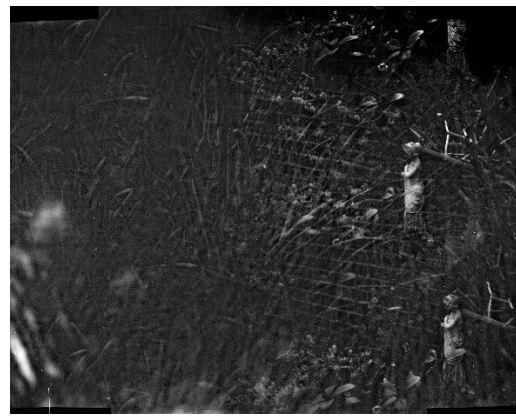
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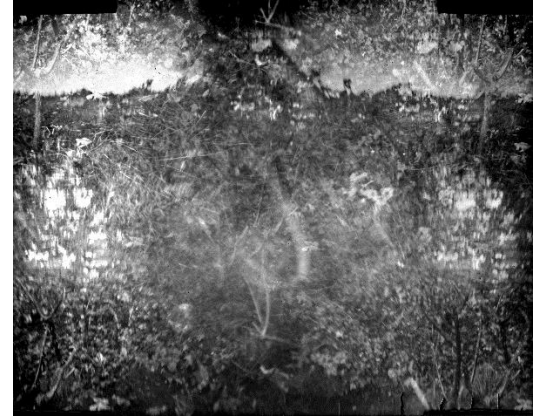
Image 119 − 10 January 2016

Image 120 − 10 January 2016

Image 122 − 4 March 2016

Image 123 − 4 March 2016

List of Figures

17	Dieric Bouts: *Altarpiece of the Holy Sacrament, The Last Supper*, 1464-8, St. Peter's Church, Leuven, Belgium. Painted central panel with four smaller side panels, two on either side.	58
18	Hugo van der Goes: *Portinari Triptych*, 1475-8, Uffizi Gallery, Florence, Italy. Oil painting on wood, triptych representing the Adoration of the Shepherds.	59
19	Masaccio, *Holy Trinity with the Virgin and St John the Evangelist and Donors* (1426-28), Church of Santa Maria Novella, Florence, Italy, Fresco.	60
20	Paulo Veronese: *The Wedding Feast at Cana*, 1562-63, The Louvre, Paris, France, Oil on canvas.	60
21	Albrecht Durer: *The Four Apostles*, 1526, Alte Pinakothek, Munich, Germany, Oil on wood panel.	61
22	Odyssey landscapes: Panel 3, *Attack of the Laestrygonians*, 195-197, Vatican Museum, Rome. Fresco. Credit: Alinari.	62
23	Scenes of Hunting and Harvest, Eastern Han Dynasty, 25-220, Sichuan Provincial Museum, Chengdu. Moulded pottery tile from the wall of a tomb in Chengdu showing scenes of hunting and harvest, illustrating a happy afterlife where one could catch fish and birds and reap a bounteous harvest forever.	63
24	Ma Lin: *Spring Fragrance – Clearing After Rain*, between 1195 and 1224, Southern Sung Court, National Palace Museum, Taipei City, Republic of China. Ink and colours on silk.	64
25	Hieronymus Bosch: *The Garden of Earthly Delights* Triptych, 1490-1500, Museo del Prado, Madrid. Grisaille, oil on oak panel.	65
26	Ma Yuan: *A Mountain Path in Spring*, between 1190-1225, National Palace Museum, Taipei City, Republic of China. Album leaf, ink and colour on silk.	65
27	Sally Mann: Untitled from *Deep South*, 1998. Credit: Sally Mann.	67
28	Paul Strand: *Columbine*, Orgeval, 1974. Credit: Paul Strand.	68
29	John Blakemore: from *The Garden: Fragments of a History*, 1991. Credit John Blakemore.	68
30	Oscar Gustave Rejlander: *Two Ways of Life*, 1857. The Royal Photographic Society Collection, National Media Museum, Bradford, UK.	70
31	Camille Silvy: *Studies on Light: Twilight*, 1859. Private Collection, Paris.	70

163

32	André-Adolphe-Eugène Disdéri: *Duc de Coimbra*, ca.1860, George2Eastman Museum, Rochester, New York. Uncut Carte-de-Visite sheet.	71
33	Eadweard Muybridge: *The Horse in Motion*. Automatic Electro-Photograph, 1878, Library of Congress Prints and Photographs Division, Washington, D.C. 20540 USA.	73
34	Etienne-Jules Marey: Plate, Fusil Photographique, circa. 1882. Credit: Etienne-Jules Marey.	73
35	Etienne-Jules Marey: *The Flight of the Pelican*, 1886. Credit: Etienne-Jules Marey.	73
36	David Hockney: *Walking in the Zen Garden, Ryoanji Temple, Kyoto*, 1983, Photographic collage. Credit: David Hockney.	74
37	Eadweard Muybridge: *Yosemite Valley, California*, 1867, Kingston Museum and Heritage Service, Kingston-upon-Thames.	76
38	David Hockney: *Merced River, Yosemite Valley*, 1982. Credit: David Hockney.	76
39	Richard Whitlock: *Basement Gallery at Thessaloniki* (n.d.). Credit: Richard Whitlock.	77
40	Richard Whitlock: *Basement Gallery in Thessaloniki with photograph adjusted to orthogonal parallel projection* (n.d.). Credit: Richard Whitlock.	78
41	Jan Kapoor: From *Urban Landscape* Series (n.d.). Credit: Jan Kapoor.	78
42	Steve Irvine: *In Ruins*, 2011. Credit: Steve Irvine.	79
43	Eric Renner: *Dale Gottlieb*, 1971, 19-hole pinhole camera. Credit: Eric Renner.	80
44	Paulo Gioli: *Novantasei Fori Forati*, 1980, Contact Press, Italy, 5 in. square pinhole photograph. Credit: Paulo Gioli.	80
45	Kurt Kren: *31/75: Asyl*, 1975, 8 min 16mm film. Credit: Kurt Kren.	81
46	Richard Whitlock: *The Street*, 8 min HD video projection ca. 400 x 200cm, 2012. Credit: Richard Whitlock.	82
47	Jan Fyfe: *Meanwhile/Becoming* - Photograph No. 77, 2 Tears, 7 Apertures, 20 August 2013.	84
48	Japanese artist and date unknown, *The Monk Fa Kong assists Zhang on a secret meeting*. Illustration from Xi Xiang Ji's *The Story of the Western Wing*. Ferdinand M. Bertholet Collection. Page taken from an album.	86

49	Jan Fyfe: *Meanwhile/Becoming* - Photograph No. 43, 4 Tears, 2 Apertures, 5 April 2013.	87
50	Artist unknown, after Zhou Fang (730-800), *Palace Ladies Tuning the Lute*, Nelson-Atkins Museum of Art, Kansas City, Missouri, USA. Ink and colour on silk.	88
51	Jan Fyfe: Interim Testing Installation of *Meanwhile/Becoming* Photographs, 2016.	88
52	Jan Fyfe: Interim Testing Installation of *Meanwhile/Becoming* Photographs, 2016.	88
53	Artist unknown, *The Solitary House by the River*, Possibly early 12th century. Ku-kung Collection.	90
54	Jan Fyfe: *Meanwhile/Becoming* - Photograph No. 70, 2 Tears, 3 Apertures, 4 August 2013.	91
55	Jan Fyfe: *Meanwhile/Becoming* - Photograph No. 78, 3 Tears, 7 Apertures, 20 August 2013.	95
56	Jan Fyfe: *Meanwhile/Becoming* - Photograph No. 122, 1 Tear, 7 Apertures, 4 March 2016.	107
57	David Hockney: *Winter Tunnel with Snow, March, 2006*. Oil on canvas. Credit: David Hockney.	118
58	David Hockney: *Late Spring Tunnel, May, 2006*. Oil on two canvases. Credit: David Hockney.	118
59	David Hockney: *Early July Tunnel, 2006*. Oil on two canvases. Credit: David Hockney.	118
60	Jan Fyfe: *Meanwhile/Becoming* – Photograph No 89, 2 Tears, 7 Apertures, 12 November 2013.	119
61	Jan Fyfe: *Meanwhile/Becoming* – Photograph No. 56, 1 Tear, 3 Apertures 16 May 2013	125

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