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The Multidimensional Depth of the Image: Body-Environment-Artefact

(A philosophical reflection for graphic design)

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A thesis submitted to Plymouth University in partial fulfillment of the degree of
Doctor of Philosophy in art and media

Transtechnology Research, School of Art and Media, Faculty of Arts and Humanities
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Abstract

The Multidimensional Depth of the Image

Current discourses within cultural studies are re-iterating the limitations of language to adequately describe the affective domains of corporeality and materiality in the study of cultural artefacts. Within the discourse of graphic design, however, there remains an enduring focus placed upon models of language and communication to understand the meaning of designed materials. Rather than upholding a focus upon language, this thesis undertakes a theoretical investigation to extend the literature available to the discourse of graphic design to better understand how visual materials 'come to mean' within the experience of an embodied subject coupled to an affective environment. This thesis proposes an ontology of images that is emergent as a part of what, within the phenomenology of Merleau-Ponty, is describes as a *mind-body-world system* through which the 'meaning' of visual materials should be grounded.

This thesis asks not 'what' visual materials mean but rather 'how' visual materials come to mean in terms of a complex relationship involving the embodied perceptual experience of the maker and the viewer that is immersed within an affective environment, what the thesis terms the *multidimensional depth* of the image. A phenomenological theory of art is extended to include a range of materials of popular visual culture to frame a study of how *form* and *style* come to mean *qua* the gestures of an embodied experience as coupled to an environment — a meaning that reciprocally emerges *through* the embodied experience of the work by the viewer. The environmental processes of which an embodied subject's movements are coupled are brought into focus through enactive conceptions of mind within the cognitive sciences, describing how mind and meaning are emergent within an autopoietic organism-environment system. This provides a framework in which the affective dimensions of matter can be more fully understood as having a cognitive efficacy. Within this context, Material Engagement Theory (an approach within cognitive archaeology) is utilized to include a more focussed discussion of the affective domains of materials, objects, and artefacts and their role in the emergence of mind and meaning.

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Acknowledgements

> Our picture has, as has been described, progressed gradually through dimensions so numerous and of such importance, that it would be unjust to refer to it any longer as a ‘Construction’. From now on we will give it the resounding title of ‘Composition’. (Klee, 1948, p. 43)

The picture of this thesis emerges not entirely on its own impetus, but through running counterpoint, changing its trajectory and shape, with other threads within which its narrative is intricately woven. Its ‘composition’ lies entangled within such strands, the traces of which, whilst remaining invisible, always remain present within the work. For supporting my philosophical platform, changing and guiding the speed and trajectory of growth, and occasionally weaving in thicker more unwieldy threads into the composition, my supervisory team, Prof. dr. Michael Punt and Dr. Martha Blassnigg leave some of the greater traces. The researchers within Transtechnology Research, each and every student, collaborator and visitor, has contributed to the composition, particularly visible traces are left from Rita Cachão, Amanda Egbe, Jacqui Knight, Edith Doove and Claudy Op den Kamp. Additionally, Dr. Hannah Drayson and Dr. John Vines, whose thinking, generosity, time and patience have shaped many aspects of the composition. An important presence, even in his physical absence Dr. Stephen Thompson has been a mentor and friend throughout my postgraduate education, as well as a voice of reason. Finally, a thank you to my parents and friends who have provided the financial and emotional threads to the composition even during my stay of absence.

Author’s declaration

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Woodward, M (2013) ‘A Staging and Choreography of Theatrical Play: A Brechtian Aesthetic for Popular Culture.’ In: Jahrmann, M., Felderer, B. (eds). *Play & Prosume*. Nuernberg: Verlag fuer Moderne Kunst, pp. 63-65.

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Woodward, M. (2012) ‘Artifacts, Entanglements & Deep History: A Reflection on the Sublime in Art and Science’. In: *L|R|Q 2.01*. MIT Press Journals, pp. xi-xii.

Signed ______________________

Date ________________________

Introduction:

The *multidimensional depth* of the image

Figure 1 has been removed due to Copyright restrictions.

Depicted above is a four panel comic portrayal of a kitchen scene, a series of black and white lines, forms, shapes and figures that, when read in succession, can come to life to express a sensuous, multi-sensory and living kitchen environment. Although the scene may appear seemingly complete, when we study the panels more closely, the ambiguous nature of the depiction gradually begins to unfold. There is just enough contextual detail to express what amounts to a kitchen scene to be recognisable, the scene in its entirety is never shown, only close-ups of specific objects, and the specific elements of the scene itself remain partially unspecified. It could be any kitchen, the cook could be a mother, a daughter, a nanny, or a housekeeper. The economy of colour, line, specific details and texture conceals any given identity of many of the items, the identity of the scene and its contents remain potential, only ever suggested through the use of line and form, requiring the experience of the viewer to actualise any meaning.

The potentiality of the scene becomes more evident in another more fundamental way; when we consider that the scene depicted, as is read through our own perceptual experience, is not what may be materially presented to our perception by the maker. The experience of the scene is lived, multi-sensory, bodily-based, subjective and temporal, not wholly of the intentions of the artist, or wholly of the experiences of the reader, it appears to express an invitation to fuse with our own experiences *through* the marks and lines themselves. The image (materially) has no sound or taste (other than the taste of ink and paper), yet when the panels are intended to be read, the sound of the boiling pot, the chopping of vegetables and the timer, the smell of certain kinds of food being cooked may all be perceptually present. Regardless of the economy of contextual detail in the panels we may perceive a certain kind of kitchen scene, one that is familiar to what our bodies may have previously experienced and encountered. The experience of such a visual material has a perceptual complexity: *as rooted within a bodily-based perceptual experience. One that is multi-sensory and guided by the lived history of our experiences, feelings and memories of being immersed within many different kinds of kitchen environment(s).*

The reading of the kitchen scene above, in recognizing how such a visual material comes to mean in terms of a fuller perceptual experience, requires thinking beyond a consensus of current critical literature within graphic design. Graphic design's academic and critical voice has been consumed within the wider concerns of 'visual communication'[1] since the late twentieth century. Where theories of narrative and grammar (Kress and Van Leeuwen, 2006; Van Leeuwen, 2008; Barnard, 2005), semiosis (Lupton, 1986; Crow, 2007; Krippendorf, 2006), and rhetoric (Ehes and Lupton, 1988; Tyler, 1992; Buchanan, 1992) all describe the meaning of a designed work in terms of its consumption embedded in the context of socially and culturally constructed theories of language, they are not able to fully appreciate a fuller perceptual experience of the bodily-based perceptual experience of the designer or viewer immersed in an environment that this thesis argues are important for understanding how visual materials come to mean.

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[1] The area of 'visual communication' represents, as Barbatsis *et al* (2005) describes, an intersection of thought from many traditions that deal primarily with the study of visual materials. As an academic discourse it is a subject that is widely studied across fields such as communication and rhetoric, psychology, social science art and design, and film and cinema studies.

There is current interest in the recognition of the philosophical tradition of phenomenology[2] and its implications in re-configuring graphic design history, criticism and education. Samantha Lawrie (2008) has called for the inclusion of bodily-based experience through a reading of the phenomenology of Merleau-Ponty. Focussing attention upon the construction of what she calls an 'embodied' language that is rooted within the kinaesthetic and multi-sensory experience of an 'embodied' viewer. Julia Moszkowicz (2010) has revealed how phenomenology once played a central role in the early studio-based languages of graphic design's pioneering practitioners and theoreticians. Such work suggests the potential to question engrained assumptions within the current discourse through bringing to light the importance of more fully understanding a bodily-based experience of visual materials.

The study of visual materials exclusively as a part of a system of language was problematized in particular during the later half of the twentieth century within the context of art (Bryson, 1989; Gombrich, 1987; Gell, 1998; Krauss, 1993), on the ground that such approaches place meaning-making outside of the temporality[3] of a lived bodily-based experience[4], they remove the body through focussing upon a culturally relative account of vision[5]. Within more current critiques in the context of cultural studies, language based approaches to the study of human culture are understood to mute not only important bodily-based perceptual and experiential processes, but also affective[6] processes of the domains of matter and materiality[7] within which the body functions, attesting to the body's immersion and participation with an active and responsive, living, natural world. Karen Barad (2007) in particular has written extensively on the limitations of language to adequately represent and describe the affective (or agential) domains of matter and materiality (pp. 132-134) as well the corporeal dimensions of perceptual experience.[8] Such a concern has been recognised throughout some contemporary strands of cultural studies[9] where the focus upon theories of language to understand human activity and cultural artefacts is still being understood as reductive. Writers such as Diane Coole and Samantha Frost

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[2] Phenomenology, as Mark Johnson (2005) describes, is a philosophical method that analyses the origins, structures, and experienced qualities of human bodily-based experience (p. 19), focusing upon felt qualities and patterns of our bodily movements and interactions with objects in the environment.

[3] Rosalind Krauss (1993) has argued against the notion of the spatial and temporal act of viewing a work as constructed outside of a kinesthetic bodily experience. What Krauss terms an 'optical unconscious' (ibid), is an unconscious rooting of visual perceptual experience within the visceral temporality of a lived body.

[4] Norman Bryson (1989) has taken exception to the notion that vision was fully understandable in terms of a coded system of signs (what he terms the Gaze), instead arguing that vision is always rooted within the temporality and duration of a lived bodily experience. The study of Western painting, he has argued, is often predicated upon the 'disappearance' of a deictic reference, the removal of the body of the artist and viewer, as a site of meaning (p. 96).

[5] Ernst Gombrich (1987) challenged what he termed the 'relativity of vision thesis', the notion that vision is culturally and socially constructed, advanced through the rise of semiotics, critical studies, and cognitive psychology. Gombrich highlights how such approaches put too much focus upon concerns such as race, class, gender, sexual preference, and power structures over that of the psychology of perceptual experience.

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[6] By *affect* I refer particularly to the Deleuzian use of the term by writers such as Jane Bennett (2007) and Diane Coole and Samantha Frost (2009) within contemporary cultural studies to describe the ability of objects, matter and things to be implicated within the development of human cognition and creative or technical activity. Elizabeth Grosz (2008, pp. 3-4) provides a further reading of the term linked to artistic practice, differentiating *affects* from an exclusively phenomenological body-centric framework as a linking of the phenomenological body to outside forces and energies of the environment that the body itself experiences. Affects, maintains Grosz, attest to the body's immersion and participation within an active and responsive nature, including cultural artefacts, within chaos and materiality, as the non-human becoming's of the human form.

[7] By *materiality* I refer to the term drawn as accounted for within material culture studies across contemporary cultural anthropology and archaeology, and refers to the domains of things, objects and matter; the properties, forces and energies of the materials of the environment, that play an active (affective) role in the development of the human cognitive architecture (Malafouris, 2013), as well as human creative and technical activity (Ingold, 2000, 2011; Hodder, (2012). Following these thinkers, *materiality* within the thesis is understood as what Gilles Deleuze termed a *material-force*, as existing across multiple dimensions of reality at once, both immaterial and material, across the domains of body and extended into the domains of materials, and underpinning human movement and activity.

[8] In *Meeting the Universe Halfway (2007)* Barad reveals how the recourse to post-structuralist theories of language to understand the world around us not only reduces our observations to that of the status of representations, but the domains of matter (including the body) that language seeks to represent are held off at a distance, "[…] language has been granted too much power. The linguistic turn, the semiotic turn, the interpretative turn, the cultural turn: it seems that every turn lately every 'thing' - even materiality- is turned into matter of language or some other cultural representation" (Barad, 2007, p. 132). What Barad terms 'agential realism' (2007) refers to a living matter, placing the agency of matter, its properties, forces and energies, at the centre of a contemporary revision of realism within the humanities and cultural studies.

[9] Barrett and Bolt's *Carnal Knowledge: Towards a New Materialism through the Arts* (2013) investigates the notion of 'New Materialism' through the practice of the arts, and explores the material dimensions of artistic practice asking how the agency of matter may impact upon human creativity. Jane Bennett's *Vibrant Matter* (2009) questions the notions of discourse and knowledge that she claims focus too exclusively upon the domain of the human agent. Instead of focusing upon collectives conceived primarily of a conglomerate of human design and practices (what she sees as a conventional "discourse"), Bennett argues that we must begin to recognize the active role of non-human materials, that is, the power of non-human (vibrant) objects to affect human activity that lies at work throughout public life.

(2009, pp. 2-3) re-iterate that the focus upon the ‘textual’ and ‘linguistic’ approaches to understand the world neglect not only the corporeal dimensions of human bodily-based experience but also the affective dimensions of materiality, treating matter as lifeless in its reception of human intentions.

It is clear that there is still a large amount of attention directed toward the hegemony of language, social and cultural determinants, as well as the textual and semiotic theories that are derived from language, regarding the study of cultural artefacts that have not been embraced as fully within the discourse of graphic design. Such hegemony leads to a ‘disappearance’, or a muting, of two important affective domains; that of (1) corporeality- the multi-sensory, kinaesthetic, bodily-based activity, feeling and experience, and (2) materiality- the affective and responsive domains of matter, materials and objects (an environment) amidst which the body is immersed. The current theoretical context surveyed here sets the precedent for this thesis which addresses the importance of a lived bodily experience and of the materiality of matter for a fuller account of how visual materials come to mean within an over abundance of communication models within graphic design. Rather than focus more attention at the level of language this thesis provides a way to more fully understand the implications of the dimensions of a lived bodily experience immersed within an affective environment through momentarily suspending the central ‘communicative’ concerns that underpin graphic design’s critical discourse. In doing so the thesis asks *how visual materials come to mean as ontologically rooted within the lived bodily-based perceptual experience of the maker and viewer, an experience that is itself immersed in an affective environment.*

Thesis Methodology

The thesis surveys current literature regarding the study of art and painting drawn from philosophy (Crowther, 2011, 2012) and philosophy of mind (Johnson, 2005) that utilise the phenomenological approach of Merleau-Ponty[10] (1962). These phenomenological approaches to art and painting are useful for the thesis' trajectory as they begin their study of the meaning of a work *qua* the gestures and performance of the artist as engaged within the world that created them, that is; *a mind-body-world system*. This literature is extended throughout the chapters of this thesis to bear upon the study of a range materials from popular visual culture and graphic design, bringing into question the theoretical separation of artistic and designed materials. Outlined below are several key attributes that a phenomenological method provides this thesis' overall methodological approach.

*A lived experience is of a mind-body-world system***.** As Jennifer Bullington (2013, pp.25-28) recognizes, what Merleau-Ponty (1962) calls a 'lived body' attests to the unity of the mind-body-world system. The body understood as a lived body is both physiological and psychological; they are intertwined, as well as intertwined with that of the world. The self, the body and the world of things and others are neither separated from each other nor to be confused with each other, but rather can be seen as three sectors or levels of a unified field.

The functioning of the mind within a phenomenological framework is 'embodied', meaning that it does not just comprise what is consciously entertained through 'higher' processes[11] of mind; it reaches down into a very visceral connection with the world. As the philosopher Mark Johnson (2005) describes, every aspect of human activity is grounded in specific forms of bodily, sensory-motor engagement with the environment, the 'origins' of human meaning-making are also embodied. The thesis recognizes that what is described as an 'embodied subject' (Crowther, 2011) (whether artist or viewer) is always immersed in a physical world that, although not dependent on the subject for its existence, determines the subject's character, while the nature of the physical world (as perceived by the subject) is equally given a specific character through the range of cognitive and motor capacities that the subject brings to bear on it.

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[10] The Phenomenology of Merleau-Ponty is utilised within this thesis as his phenomenology differs from that of the 'transcendental' phenomenology of Heidegger and Husserl in a fundamental way. As Vivienne Sobchack (1999, p. 32) describes, Merleau-Ponty's phenomenology is 'existential', it recognizes the reversibility of perceptual experience in which the subject and objects of perceptual experience respond to each other. Whereas a Husserlian phenomenology describes the phenomena of experience as 'given' by the world and 'taken up' through the act of experiencing, Merleau-Ponty's phenomenology recognizes a reciprocal relationship between subject and object that are both 'enworlded'. As Jennifer Bullington (2013, pp. 25-28) recognizes, what Merleau-Ponty (1962) calls the 'lived body' is a lived unity of the mind–body-world system.

A phenomenological approach to art is undertaken through bodily-based experience, providing a fuller understanding of how visual materials come to mean within such an experience. Paul Crowther's (2011) notion of the 'phenomenological depth' of painting describes how an artwork's style embodies a complex reciprocal relationship between the painter's subjectivity and the objects of their perception, knowledge and action.[12] The study of painting is undertaken in terms of the gestural activity in modifying the relation between subject and object of experience – recognising the painter's bodily presence in the way the subject matter is depicted. The 'style' of a work within a phenomenological framework is not just a way a picture looks, it "embodies a way of acting upon the world, through painting or sculpture, that changes the character of the subject matter being addressed"

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[11] What Johnson (2005, p. 218) describes as the 'higher' processes of mind refer to that of rationality and conceptual thought that have, in many dualist accounts of mind within the Western philosophical tradition, been separated from 'lower' process of bodily functioning, such as kinaesthetic activity, feelings, emotions and desire.

[12] For Crowther, the ontological structure of the subject and its objects of experience are reciprocally correlated at the experiential level; each is a part of the full definition of the other. Crowther (2011, p. 3) uses the term 'phenomenological' in relation to aspects of this reciprocity, particularly "how the relation between subject and object of experience changes character on the basis of different modes of perception and action".

(Crowther, 2012, p. 2), studied through such things as the handling of paint, the choice of subject matter and compositional strategies.

How a particular style of a work comes to mean is emergent through a complex interplay between the phenomenological depth that the work embodies and the direct visual perception of that work by the viewer. The phenomenological notion of a “reciprocal interaction and modification” (Crowther, 2012, p. 65) of a work is utilised by this thesis to reveal the reciprocity between perceiver and perceived in which the work itself, and the viewer’s perceptual experience, are reciprocally transformed. Such a position carries the epistemological implication that the relationship between the subject and object of experience (the work) is not absolutely fixed but constantly transformed by the new circumstances of the viewer’s own perceptual experience, the “presence of an always-participating mobile viewer” (Crowther, 2012, p. 65).

The activity of an enquiry (this thesis) is constructive. The perceptual experience of the inquirer is reciprocal; the work itself, and any meaning, is always read *through* perceptual experience as an ‘aesthetic disclosure’ (Crowther, 2012). Such a disclosure of meaning recognizes the very activity of the enquiry (including its historically contingent context) as co-constructive; it always changes the character of the subject of enquiry being addressed through the cognitive and motor capacities of the viewer. As a consequence this thesis avoids presenting an exhaustive historical account of any visual materials, rather its aim is philosophical; *to investigate how visual materials come to mean through the experience of them*.

To extend a phenomenological study of art to include the materials of popular visual culture this thesis specifically undertakes a study of the *human figure*[13] as is depicted across a range of artistic and popular visual and audio-visual materials[14]. The way the human figure is depicted within the materials surveyed will be read as revealing a phenomenological depth that is a part of a mind-body-world system, that is; *to more fully describe how a visual material comes to mean in terms of a lived bodily experience (of the artist and viewer) that is always immersed within an affective environment of objects, materials and matter.* This enquiry culminates in what this thesis describes as a 'multidimensional depth of the image'— *an emergent relationship between a work, that embodies the phenomenological depth of the artist as immersed within an affective environment, that is experienced through a reciprocal interaction and modification with the 'depth' of the viewer also immersed within an affective environment.*

The methodological approach set up within the context of phenomenology provides this thesis with a theoretical trajectory that underpins the central narrative of the chapters (outlined below) through focussing attention upon a theoretical repositioning and thickening of three key concepts that form a mind-body-world system: *the body*, *the environment*, and *the artefact.* Through such an investigation this thesis takes an opportunity to survey critical literature that will be brought to bear upon the study of the materials of popular visual culture from areas outside of the critical discourse that surrounds graphic design.

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[13] Where graphic design has many abstract and unusual forms found within logotypes and typographic solutions that can also be studied alongside avant-garde and abstract painting, these are not the focus of the current work of the thesis. The thesis' task is not to attempt an all-encompassing theory of depiction for visual communication at this stage, rather to lay the groundwork for a new theoretical trajectory.

[14] As the thesis brings phenomenological theories of art to bear upon the study of popular visual culture, the materials studied at the core of the thesis are taken from a range of sources, such as advertising and avant-garde filmic materials (primarily sourced from the 1960s and 70s European context), painting, advertising matter and experimental film, that have a similar ambiguous, strange and unusual formal presentation of human figures and events. These materials are juxtaposed throughout the thesis with other visual materials taken from artistic, scientific and popular contexts.

Thesis in outline

'Form' and 'visual style' have a phenomenological depth

The thesis begins its investigation through a description of a particular perceptual experience of an example of late twentieth century popular culture — Hamlet cigars *Music Teacher* (1968) (advertising film) — that presents figures, context and narrative in unusual, minimal and ambiguous ways. This reading is used in **Chapter One** to bring to attention how the critical literature that surrounds the study of such a work of popular visual culture, focus the study within a social, cultural and economic context (Greenberg, 1939; Hagener, 2007; Spigel, 2010) removing a lived bodily-based experience of the viewer and the artist from this analysis.

To re-introduce a lived bodily-based experience Chapter One surveys phenomenological approaches to mind that recognise the emergence of mind from within an unconscious system of sensory-motor functions, feelings and activity that operate below the level of self-referential intentionality (Gallagher, 2005). The mind is 'embodied' within the organic functioning of what is described as a lived 'phenomenological body'[15] (Johnson, 2009, p. 274) — the experience of a living, moving and feeling body coupled to the environment. Phenomenological, or embodied, approaches to art (Johnson, 2009; Crowther, 2011, 2012) begin upon the premise that the work is a trace of the movement, gesture and skill of an embodied mind coupled to an environment, rather than the study of visual materials in terms of 'what' they mean regarding social and cultural determinants. This literature provides Chapter One with a recovery of two central notions: 'style' (Crowther, 2012, 2013) and 'form' (Johnson, 2009), which are extended to allow a deeper discussion of how visual materials of popular culture come to mean as rooted within the embodied experience of the artist and viewer.

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[15] Within the context of Johnson's work, the body cannot be understood as merely a physiological object interacting with other objects — but as an attitude, having a subjective, lived experience of its own that directs toward the world. Johnson's 'phenomenological body' is introduced as one of five accounts of the body that together provide a fuller account of what Johnson calls a 'human being' (Johnson, 2005, p. 274), the biological body, the phenomenological body, the ecological body, the social body and the cultural body. Neither of these individually can account for the complexity of a 'human being' rather they all must be included in equal measure. Johnson's biological and phenomenological body are most relevant for the trajectory of this thesis, more fully outlined in Chapter One.

Mark Johnson (2009) describes how the formal aspects of a visual work, its shape, quality of line and colour, always express an embodied meaning rooted within the unconscious sensory-motor functioning, feeling and movement of the artist that creates the work. For Johnson, the visual arts are exemplary of such an embodied meaning as they not fully explainable in terms of intellectual cognitive, or propositional statements, instead they are rooted within the sensory-motor functioning and feeling of the body of the artist. Paul Crowther (2012) offers a phenomenological recovery of visual style in an art historical context. What Crowther (2011, 2012) describes as the 'phenomenological depth' of visual style of painting is a reading of style in terms of how it embodies a complex reciprocal relationship between the painter's subjectivity and the objects of their perception, knowledge and action, as read through choices of subject matter, compositional strategies and also through the way the artist handles paint.

Just as with the artist or practitioner, the embodied experience of the viewer also plays a constructive role in how visual materials mean, as there is a 'reciprocal interaction and modification' (Crowther, 2012) between perceiver and perceived in which the work itself, and the viewer's perceptual experience, are reciprocally transformed. **Chapter Two** investigates this relationship more fully by surveying a constructivist model of perception based upon a physiological model of optics (Helmholtz, 1924) applied within the psychological study of the visual arts (Gamboni, 2000; Gombrich, 1960). This literature review reveals that the perceptual experience of a work (whether a painting, comic strip or accidental image such as an ink blot) is 'in-direct', that is: always shaped by a projective inference of prior neurological structures (Gregory, 1997) as well as the subjective experience and expectation of the temperament of the beholder (Gombrich, 1960). A visual or audio-visual work (once created) is not entirely understandable in terms of any one particular perceptual experience, as it always remains 'potential' (Gamboni, 2000), actualized through the presence of the projective perceptual experience of the viewer or beholder.

The complex co-constructive relationship between artist, work and viewer is more fully accounted for within literature that takes a phenomenological approach to film (Barker, 2009; Marks, 2000; Sobchack, 1999, 2004). This is used by Chapter Two to extend the phenomenological depth of images (as outlined in Chapter One) to include that of the 'depth' of the viewer. Revisiting the phenomenology of Merleau-Ponty through the work of Vivienne Sobchack (1992) reveals that the experience of a film work is itself 'expressive'; it involves the already expressed perceptual experience of the filmmaker (expressed within the work) as is experienced through the expressive perceptual experience of the viewer. This experience is also multi-sensory, or 'haptic' (Marks, 2000), a tactile encounter that evokes the memories and multi-sensory experience of an embodied spectatorship. Phenomenological film theory is utilised in Chapter Two to bring together the work of this first part of the thesis: to understand how a work (audio-visual or visual) may come to mean is *to begin an analysis of the work as an expression of the embodied perceptual experience* *of the artist (expressed through the work) that is experienced (and modified) within the context of an already embodied perceptual experience of the viewer*.

Placing the embodied experience of the artist and viewer at the centre of the study of artistic and popular visual materials reveals a flattening of a propositional or intellectual categorical treatment of artistic and designed materials (outlined in Chapter One), each having a phenomenological depth rooted in the reciprocal perceptual experience of the maker and the beholder. **Chapter Three** takes this understanding further by focusing on a method of analysis that can place a phenomenological depth at the centre of the study of *all* kinds of visual materials. In this context, the critical literature that surrounds the concept of the 'image' in the work of the art historian Aby Warburg (1866-1929) within the domains of film (Michaud, 2007), architecture (Papapetros, 2012) and art history (Rampley, 2001) provides a particularly useful guide as they foreground the study of 'images' within the movements and gestures of the body, underpinned by imaginary and psychological energies.

Warburg's notion of 'image' is introduced in Chapter Three as different to the conventional study of an 'artwork' as part of a category of art history (Agamben, 1999). The 'image' is the study of embodied psychological 'energies' underpinning the movements and gestures of the creator and that are left as a trace within the details of human figures depicted within the work. Two key tenets to the notion of the 'image' are outlined in Chapter Three: first, the creation of *all* visual materials (whether of art, science or popular culture) is underpinned by a historically contingent 'pathos formula' (imaginaries, beliefs and experiences) that 'animate' the human figure depicted in the work; secondly, the work should be studied not in terms of *what* it means, but *how* it 'comes to mean' as embodied within the historically contingent gestures and movements of the maker's body.

The reading of Warburg's notion of the 'image', as a historically contingent expression of a way of acting in the world, undertaken in Chapter Three is used by the remaining chapters of this thesis to reveal the psychological animation within the details of the human figures depicted, which is extended through the work of Crowther (2012) in order to observe them as part of the phenomenological depth of the work itself.

The phenomenological body is also 'enworlded'

The placing of the embodied experience of the artist and viewer at the centre of the study of how visual materials mean leads to the second central claim of this thesis: *the importance of the affective (expressive) role of the environment, its processes and conditions, within a mind-body-world system*. The phenomenology of Merleau-Ponty (1942, 1961, 1962) provides a useful philosophical guide across Chapters Four and Five for such an investigation by describing the activity of painting as the process of giving a visible existence to what is invisible; to the processes and forces of both a lived body and the processes of the environment. For Merleau-Ponty ([1961] 1964, pp. 166-167) movement and activity of the *phenomenal body* of the painter is always open to a multi-sensory 'texture' in which the environment and its conditions, a texture that the body is always immersed.

Merleau-Ponty's work is outlined in **Chapter Four** to frame a discussion of the importance of the role of the environment within a perceptual experience that is also 'enworlded' (Sobchack, 1992). For Merleau-Ponty, perceptual experience does not happen *to* the body, rather the body is always immersed *within* an existential perceptual experience; it is something that the body acts out through such an immersion. Merleau-Ponty's philosophy provides two central points that bear upon the focus of how visual materials come to mean as emergent from the movement and gesture of a body: (1) painting, as an activity, 'captures' the environmental forces that impact upon the body, expressed visually through the gestures of the artist; (2) the environment (its processes and conditions) is active, alive and responsive to human gesture, activity and movement and requires more attention than has been given to it for the study of the meaning of visual materials.

Complimentary to Merleau-Ponty's thinking, what are termed 'enactive' approaches to mind and perception within the philosophy of mind (Noë, 2004; Thompson, 2007), and cognitive sciences (Maturana and Varela, 1979; Varela *et al*, 1993) are surveyed throughout Chapter Four. According to the enactive conception of mind (Thompson, 2007; Varela *et al.*, 1993), cognition and perception are grounded in the sense-making activity of the organism, which is 'autopoietically' (Maturana and Varela, 1979) coupled to an environment. The organism both initiates and is shaped by the environment; organism and environment are bound together in a reciprocal activity of specification and selection. The organism's perception and the 'features' of the environment are both enacted, 'brought forth' through the movement and activity of the organism coupled with its environment. Enactive conceptions of mind are utilised in Chapter Four to allow a more focused discussion of the environmental coupling of the artist. Where the phenomenological depth of the artist is rendered visible through the activity of painting, **Chapter Five** argues that within an enactive framework processes of the environment (environmental features) are also 'rendered visible' *through* movement and gesture.

The environment ‘matters’- matter is expressive

To begin to more fully understand what may be meant by enacted ‘features’ of the environment within the development of an enactive conception of mind, Chapter Five surveys current literature focussed upon the study of material culture: what is understood in anthropology and archaeology as the domains of matter, objects, artefacts, materials and ‘inorganic’ structures such as rocks and geological formations (Ingold, 2011). ‘Material Engagement Theory’ (MET) (Renfrew and Malafouris, 2010; Malafouris, 2013), drawn from cognitive archaeology, aims to rebalance the cognitive equation by bringing materiality — what is understood as the domain of objects, artefacts, things and materials — into the study of the evolutionary development of cognition. MET (Malafouris, 2013) attempts to describe the cognitive efficacy of past and present material culture, in which plastic brains, bodies and things play equal roles in how human cognition develops over time. To talk about the development of human cognition in the context of MET is to include the cognitive efficacy of the material world of objects and artefacts as active in the shaping of the human mind through activity and engagement with materials.

To recognise the efficacy of the material world as part of cognition itself is to recognize the fundamental ‘agency’ of matter and materials shaping human activity. Within the study of material cultural across cultural anthropology (Ingold, 2010, 2013) ‘matter’ is understood as having resistances, forces and tensions, it is ‘alive’ and plays an affective role alongside human creative activity in the creation of cultural artefacts. Tim Ingold (2011), following the philosophy of Gilbert Simondon ([1964] 1992), conceives of the material world not as a passive receiver of a pre-conceived human design, but recognises it as an active, responsive and energetic ‘material’ (Ingold, 2007b), having resistances, forces and tensions of its own. The study of artefacts such as that of willow baskets (Ingold, 2013) reveal how the final form of the artefact, a slightly bent structure, cannot wholly be attributed to a ‘design’ in the mind of the maker, but rather emerges as an expression of a total ‘field of forces’ set up through the structured movement of the practitioner engaging with the tensions and resistances of materials. What Ingold describes as the ‘growth’ of a human artefact, such as a woven basket, is seen more as a process of autopoiesis ([2000] 2010, p. 345): a self-transformation over time of the entire system of relations that comprise the organism-environment system in which the artefact comes into being and that includes the resistances and forces of the materials being used.

Human history is non-linear

One of the implications that emerges through recognising the active role of matter and materials is that the development of the human body, cognition and human activity is not simply a linear trajectory of development upon a passive material world but is rather immersed within the processes of an energetic world. As such Chapter Five continues by discussing the deeper relation of the development of the human body running counterpoint to an active environment that includes the material processes of the earth, such as the geological timescale and exchanges of bio-mass. Manuel De Landa (2000) has described what he calls a ‘meshwork’ of energy transfer and energy flow that reveals the non-linear nature of human social history as embedded amongst deep geological and genealogical time-scales. Social systems for De Landa (2000) are apart of an emergent ‘stable state’ or hardening of the flow of energy and biomass between biological, geological and ecological systems, which he demonstrates through weaving together the energy flows and transitions of geological change and uplift and a genealogical history of germs plants and animals together with the artefacts of a linguistic history of human society between 1700- 2000 AD.

Adopting and extending the notion of meshwork to include all other constituents of the environment, Tim Ingold (2011) has rethought what it means to talk of ‘being’ within the context of an active and energetic world that is always becoming. Through utilising the work of the ecologist Jakub von Uexküll (1934), Ingold (2011) describes how the organism and environment emerge as ‘counterpoint’ to each other, one is necessarily *of* the other, they are relational. The notion of counterpoint is utilised in Chapter Five to extend the notion of meshwork beyond De Landa and Ingold’s primary focus of the environment, to include the crucial dimensions of ‘energy flow’ and ‘transfer’ that accompany the movement and activity of a phenomenological body. What De Landa (2000) terms a ‘non-linear’ and ‘non-equilibrium’ alternative to the ‘linear’ human history is applied throughout Chapter Five to describe the interplay, energy transitions and feedback between biological, genealogical, material, phenomenological and social systems within which to situate the emergence of visual materials. This description is particularly driven by an extended commentary on painting.

Visual materials are not representational

The theoretical context of a non-linear human history shifts the status of human artefacts themselves within the context of this thesis from that of representational *of* a human body, mind and intention to that of relational *to* and functional *within* the ongoing development of an enactive conception of mind. Chapter Five concludes by discussing how human artefacts, understood as ‘traces’ of the development of human cognition and activity (Shryock and Smail, 2011) further shape the body and cognition through their use and engagement. In the realm of cognitive archaeology (Malafouris, 2013) visual materials, such as Palaeolithic depictions, are understood as playing a functional role as a part of the ongoing development of an enacted mind (Malafouris, 2010). For Malafouris (2007), before and beyond any representational act, the process of depiction brings forth (or enacts) a world at the same time as depicting it. Visual materials are studied within contemporary cognitive archaeology in terms of 'how they come to mean' (Malafouris, 2013) as a part of the development of an enacted mind that can be revealed by re-tracing the movement and activity underpinning the process of depiction as engaged, immersed, in a material world. This synthesis provides the second half of this thesis with an account of depiction that is at once a materialisation, or a trace, of the development of an historically contingent enactive system, or way of acting within the world, as well as playing a functional role *for* perception and cognition to develop through its experience by the maker and viewer.

A new theoretical approach: the 'multidimensional depth' of the image

Chapter Six brings together the archaeological, anthropological and phenomenological frameworks surveyed throughout the chapters of this thesis into a productive dialogue that constructs a new theoretical approach that bears upon the study of how visual materials come to mean. What is termed in Chapter Six as the 'multidimensional depth' of the image is an approach to the study of visual materials that puts the lived bodily experience of a maker and viewer (a mind-body-world system) at the centre of analysis. The *multidimensional depth* refers to a highly differentiated force-field (of exchange and transfer), a meshwork, from within which an image emerges (or is brought forth) and is experienced, by being set up through the movement and gestures of a phenomenological body(s) running counterpoint to an active and responsive environment; a force-field that encompasses different topologies and causal orders of the phenomenological body (of the maker and viewer), environment and matter through which visual materials emerge.

To demonstrate how a multidimensional depth is readable through visual materials, Chapter Six undertakes a reading, through an aesthetic disclosure, of the visual and audio-visual materials that are used throughout this thesis through an examination of the changes and transformations of the details of the depiction of the human figure within them. This reading is undertaken in the spirit of Aby Warburg's *Mnemosyne Atlas,* a collection and juxtaposition of diverse visual materials (artistic, scientific and popular) revealing the many 'pathos formula' (or imaginaries) that animate the human figures depicted across them. It is through a study of the differences and tensions, the blank spaces, between images that Warburg studied what Edgar Wind (1983) describes as the 'lifeblood' (the metaphysical source) of the images. This approach is utilised in Chapter Six as a theoretical tool to juxtapose a collection of diverse images of visual culture together that through their study reveal a *multidimensional depth* as is read through the experience of the works themselves; through the tensions and resistances between the transformation of the details of the human figures that are depicted within them.

Key terminology

Throughout the thesis certain terminology will be used to describe aspects of the multidimensional depth of images, what follows is a small *précis* of some central terms for further clarification within the context of this thesis.

The term **phenomenological body** is used to refer to a **lived** bodily experience of a body within a world (see Chapter One). Taken from the embodied approach to mind as described by Mark Johnson (2005) based upon Merleau-Ponty's (1962) *phenomenal* body. The 'phenomenological body' or 'lived body' is the lived unity of the mind–body-world system. The focus of each chapter of this thesis will introduce other kinds of bodies to thicken this lived experience, such as a physiological body (Helmholtz, 1924), a biological body (Varela *et al*, 1993), an ecological body (Bateson, 1972) and a body within deep geological time (Shryock and Smail, 2011). This synthesis of different accounts of the 'body' provides a fuller account of a lived bodily-based human experience as immersed within an affective environment.

Through the survey of phenomenological, embodied and psychological accounts of mind, reference will be made to two central aspects of a fuller human experience: the **corporeal** and the **immaterial**. The use of the term *corporeal* is in reference to the sensory-motor functioning, performance and development of the body underpinning perceptual experience. *Immaterial* makes reference to the subjective aspects of experience such as beliefs and imaginaries that underpin, and emerge with, the corporeal. Whilst these aspects of experience may be described as separate categories within the literature surveyed, they will be treated throughout this thesis as co-dependent, neither one having primacy over the other, and both reciprocally structuring each other.

The use of the term **style** throughout this thesis is described within the context of a *multidimensional depth* of visual materials, as an expression of the gestures, movements, temperament and experience of the body of the artist immersed within an environment. What style is, or what it may be understood as being, is not the primary concern of this thesis — the focus is placed upon *how* style comes to mean when more fully including a discussion of the bodily-based experience of the artist and viewer. The use of the term **visual materials** refers to a diverse range of materials of visual culture such as paintings, film, advertising and illustrations through which style and form are read to reveal the body. The focus of this thesis remains within what is described as visual culture[16], this does not isolate the approach from other artefacts such as sculptures, tools and other objects.

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[16] By visual culture I refer to the academic discourse around what Nicholas Mirzoeff (2002, pp. 3-4) describes as the " visual elements in which information, meaning or pleasure is sought by the consumer in an interface with visual technology […] any form of apparatus designed either to be looked at or to enhance natural vision, from oil painting to television and the internet" (p. 3).

Chapter One

The 'Depth' of the Phenomenological Body

Figure 1a has been removed due to Copyright restrictions.

Figure 1a depicts the presentation, in an unusual, ambiguous, undetermined and minimal form, of an advertising film for Hamlet cigars: *Music Teacher* (1968). The work as a whole presents the narrative of a bad music lesson, in which the teacher's dismay at the student's rendition of Bach's *Air on a G-String* is soothed when he smokes a cigar. The film comprises the ambiguous, strange, minimal presentation of detail, character and context; it does not provide a definitive meaning, but instead expresses just enough within the work to suggest an overall narrative.

The context and details of the scene are ambiguous – that is, they are open to being wherever, whomsoever and whatever the viewer experiences them as. The scene gives very few clues as to the context, just enough to suggest a music lesson – a piano, a student, a metronome and a teacher. The setting of the lesson remains ambiguous, presented as a blank grey space – it could be taking place anywhere, any time. The characters are also presented with as few clues as possible as to their identity – a school tie and shirt for the student and a cravat and smoking jacket for the teacher – and their movements and gestures, barely noticeable, reveal no concrete character traits. The shots themselves are long-drawn-out, with little or no movement, and the work is shot in stark, stylistic black and white, opposing student and teacher (the teacher could be wearing red, green or black), with both emerging from a grey-toned background setting. There is little sound within the work; although the metronome never clicks we may experience the clicks through the experience of the film, the only contextual sound accompanying the scene is an out-of-key run of notes heard over shots of the student frantically stabbing at the keys, followed by a piano rendition of Bach's *Air on a G-String*.

The work's unusual qualities and minimal formal structure mean the viewer is not presented with a defined meaning or context; there are few contextual cues or details which only suggest an one of many possible reading. The ambiguous presentation of the film's content and narrative events points toward a central focus of this chapter: the importance of the multi-sensory, bodily-based, perceptual experience of the viewer, which relies on their prior multi-sensory experience of a music lesson (or of any lesson in general), an experience that is not materially present in the work. The foregoing analysis of such a stylistically ambiguous and strange presentation as described within the critical literature that surround such materials, illustrates the chapter's central argument — that an analysis that focuses predominantly on social, cultural and economic 'conceptual' determinants of a work removes the bodily-based experience of the viewer (such as those described above), not to mention those of the artist or filmmaker.

To re-introduce the bodily-based experience of the artist and viewer into how materials of visual culture such as the work presented above mean, the chapter surveys a selection of embodied and phenomenological approaches to art that provide alternative approaches to the study of visual *form* and *style*. These approaches recognise the 'presence' of the bodily experience and activity of the artist as embodied within the way they handle the medium, what is described as a 'phenomenological depth' (Crowther, 2013) to how a work means. This phenomenological depth, it is argued, also extends to that of the embodied perceptual experience of the viewer of the work, the experience of which is a 'reciprocal interaction and modification' (Crowther, 2013). The ambiguous, awkward and minimal presentation of figures within the example of popular culture, extended within a phenomenological context, reveals a complexity of how a visual (and audio-visual) work means, *as an embodiment of a phenomenological perceptual experience that is always experienced through a phenomenological perceptual experience of the viewer.*

1.1 The disappearance of the body

1.1.1 *Economic and socio-cultural determinants*

The unusual, ambiguous form and style of materials of popular visual culture, such as the advertising film described above, are commonly studied and described (in an historical context) in a way that ultimately amounts to an argument concerning the economic, social and cultural exploitation of artistic techniques. This exploitation has been studied in reference to materials such as advertising posters (Gibbons, 2005),[17] as well as audio-visual materials such as advertising film (Spigel, 2009; Hagener, 2007) and other promotional filmic materials (Cowen, 2010), and has led to a specific reading of this artistic formal style – as it is applied across commercial visual culture – that rests on two central points. Firstly, the use of avant-garde formal techniques in advertising film is understood as an intellectual and conceptual design with an economic agenda – that is, artistic techniques are copied and put to use in the service of consumption. Secondly, the focus on the intellectual and conceptual 'design' history of these techniques, which is primarily based on the study of textual documents, disregards the bodily-based skill, temperament and experience of the artist and the viewer in relation to such materials.

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[17] Gibbons' *Art and Advertising* (2005) describes the use of artistic techniques in popular culture from the 1960s to the 1990s, such as that of print advertising, as the utilisation or adoption of techniques across disciplinary boundaries to capture audience attention.

The extent to which the focus is placed on the intellectual, conceptual and design agenda behind the use of artistic techniques in commercial advertising film is most transparent in media and film history and theory, in which it remains a predominantly socio-cultural and economic story. Malte Hagener (2007) and Michael Cowen (2010, 2012) describe the extent to which a socio-cultural collaboration between avant-garde filmmakers and commercial film in 1930s Europe resulted in artistic techniques permeating the wider film culture. Hagener (2007, p. 42) reveals that the 1920s and 1930s European filmic avant-garde acted as a "research and development program", a spearhead for the wider commercial film culture across both Europe and the US during this period: the avant-garde, he argues, created tools, strategies and models that became common currency in film culture in general, particularly in the industrial and commercial film industry of the post-war era. Using this economic, socio-cultural framework, Hagener (2007, pp. 45-46) claims that hardly any of the European avant-garde films of the 1920s and 1930s could be regarded as independent productions – most had some outside funding in the form of commissions,[18] patrons or the backing of commercial studios – and this explains how their formal strategies, styles and models were able to permeate commercial film culture.

Lynn Spigel (2009) describes the specific use of filmic avant-garde techniques, such as strange and unusual point-of-view shots, long-drawn-out contemplative shots and the minimal presentation of mise-en-scène in 1960s American advertising (for napkins and bottled water, for example) as a product of the fact that advertising agencies were widening the social and cultural networks that extended among artists and filmmakers. Through her extensive archival research in trade journals and production notes, Spigel reveals the similarity in form and style of American artistic and commercial film practices during this period, which she analyses in terms of the material networks and labour relations among graphic designers, artists, television producers, network executives, broadcasters and advertisers.

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[18] Although the result of this funding took different forms, Hagener's particular focus reveals how the work of avant-garde artists and filmmakers, such as Walter Ruttmann, Hans Richter, Joris Ivens and Oskar Fischinger, connect the interwar avant-garde across Europe and America, through the making of a considerable number of advertising films, as well as public exhibitions and initiatives.

The widening of material social and cultural networks underpinned what Spigel identifies as mutual collaboration between these domains, which resulted in the adoption of 'new' formal techniques in advertising film, copied from the techniques of 1930s and 1940s European avant-garde film culture in return for economic gain. These techniques, she claims, were used as a tactic in advertising films to help them stand out in an over-saturated marketplace (Spigel, 2009, pp. 218-220). Crucially, they were 'adopted' or 'copied' from the context of the artistic, aesthetic inquiry that was taking place in the arts,[19] to be used as part of the advertisers' design agenda of 'persuasive rhetoric' (p. 218); they were 'designed' to get the attention of the audience.

The extent to which the critical literature regarding the study of televisual popular culture focuses on such intellectual material networks rather than the bodily-based experience of the artist or viewer can be traced to the influence of Clement Greenberg, to whom the above writers pay their dues. Although Greenberg's writing on art history may now be of mainly historical concern,[20] it is pertinent to this chapter to revisit the theoretical underpinnings of his thought as it illustrates the extent to which bodily-based experience disappears in more contemporary socio-cultural readings of artistic and televisual media forms through focussing upon certain 'conceptual' determinants, particularly in terms of the ambiguous and minimal formal artistic techniques used in popular visual culture.

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[19] Spigel's work reveals the adoption of the ideas of Russian filmmaker Lev Kuleshov (1899-1970) by advertising film agencies and trade journals. Kuleshov's work, or more specifically the 'Kuleshov Effect', focused on how a montage of scenes, rather than the individual images themselves, can convey meaning in a film (Hensley and Prince, 1992). By interspersing the shot of an expressionless male face with various other shots, such as a plate of soup, a girl in a coffin, a woman on a divan, Kulsehov demonstrated that the viewer brings their own emotions and experiences to bear on their visual experience the montage, investing the face of the actor with their own feelings.

Greenberg's ([1988] 1962, p. 132) writing is informed by the central notion that "conception is decisive", over and above artistic skill and performance, in understanding the development and meaning of the style of visual works such as modernist avant-garde painting. This aspect of Greenberg's thinking illustrates the disappearance of the performance and functioning of the body of the artist and viewer (as well as its experiential dimensions) in the analysis of the visual style of both artistic and mainstream culture. The attention is placed instead on the study of the intellectual and conceptual, including the social, cultural and economic networks of artists, filmmakers and viewers.

1.1.2 *Conception as decisive in the study of visual style*

Greenberg believed that the similarity in the abstract form and style of the materials of modernist[21] avant-garde painting and popular visual culture means they should be studied as parallel practices – that is, they should be understood in conceptual terms within their individual socio-cultural and political networks of development, which he describes in *Avant-Garde and Kitsch* (1939) as an enterprise that is either political (in the avant-garde) or economic (in popular visual culture). Greenberg's conceptual grounding of the style of these materials is formulated on the premise that the development of the style of avant-garde abstract art (primarily painting) has nothing to do with the individual artist's bodily skill or performance but has to be understood in purely conceptual, scientific terms. As he expresses more fully in *After Abstract Expressionism* (1962), Greenberg believed conception to be the decisive essence of 'good' art:

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[20] The work of art historians such as T.J. Clark (2001), Michael Fried (1982), Gordon Bearne (2000) and Rosalind Krauss (1993) has shifted the study of modernist avant-garde painting and art beyond Greenberg's original writings.

[21] Greenberg (1939) describes the works of what he calls 'modernist' painters such as Picasso, Braque, Mondrian, Miro, Kandinsky, Klee and Cezanne in terms of what he classifies as 'avant-garde' during the early twentieth century. These painters, for Greenberg, deriving their chief inspiration from the medium they work in, rather than within the subject-matter of common experience, arriving at "abstract" techniques of depiction in the search for an 'absolute' form of art that was not reducible to anything but itself.

> [T]he worked-out answer appears to be not skill, training, or anything else having to do with execution or performance, but conception alone. Culture or taste maybe a necessary condition of conception, but conception is decisive. (Greenberg, [1993] 1962, p. 132)

Notions of what may constitute 'good' or 'bad' art are not the concern of this chapter; rather, it concentrates on the effects produced by the idea that conception alone accounts for the creation of artistic styles. The conceptual grounding of abstract avant-garde painting, as well as a later study of modernist painting, underpins Greenberg's earlier study of the abstract and surreal styles shared by works of modernist painting and popular visual culture. In *Avant-Garde and Kitsch*, he sets up a stylistic relationship between a modernist painting by Braque and a *Saturday Evening Post* cover that depicts figures in abstract and surreal ways in social and economic terms, claiming that each work presents a specific conceptual aesthetic experience according to the historical context in which it was created and experienced:

> It appears to me that it is necessary to examine more closely and with more originality than hitherto the relationship between aesthetic experience as met by the specific – not the generalized – individual, and the social and historical contexts in which that experience takes

place. (Greenberg, [1939] 1988, p. 6)

The study of a stylistic similarity between what were considered to be two independent cultural forms was, for Greenberg, achieved through a study, not of the aesthetic dimensions of individual bodily skill, performance or experience (that is, of the more subjective 'subject matter'[22] of human experience), but in terms of the social and cultural aesthetic in which the individuals who created and perceived the work were always situated.[23] According to Greenberg, an analysis of each of the individual works' cultural, social and political networks is required to convincingly account for such a stylistic similarity between them, treating each object of study – modernist painting and mainstream visual culture – as running in parallel, in their own socio-cultural networks of development. The focus on the parallel development of each work defines what Greenberg ([1939] 1988, p. 17) terms the 'interval' or difference between these two material products of visual culture, establishing a hierarchy on the basis of their political, economic, social and cultural differences.

Greenberg's account of the development of avant-garde painting during the first half of the twentieth century is widely recognised as following a strongly empirical line, as Diarmuid Costello (2008, p. 118-120) outlines. It does so through an assumption regarding the role of the individual senses and their relation to the individual arts. For Greenberg, the practice of modernist painting during this period was 'scientific' in its conception, confining itself exclusively to what is apparent through direct logical observation, without reference to any other order of human experience, such as bodily, multi-sensory or subjective experience. As Costello (2008, p. 119) relates, Greenberg's notion of modernist painting is built upon a medium specificity that attempts to align a notion of cognitively uninflected sensation with the specific artistic medium of painting. As such, any sensory impressions made by the work of art were to be traced back to, and understood in terms of, the intrinsic material properties of the medium of the artwork itself as experienced directly through human visual observation.

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[22] What Greenberg ([1939] 1986, p. 9) terms "the subject matter of common experience" refers to all that is not of an objective, critical, cultural and political nature, but of the subjective, metaphysical and emotional – an 'extroverted experience' that he claims has to be renounced.

[23] Expanding on this point, Greenberg, in *Avant-Garde and Kitsch* (1939), gives the example of a Russian peasant standing before two paintings, one by Picasso, one by Repin. For Greenberg, the abstract technique used to render the shape of a woman in the Picasso is not 'familiarly' accessible to the 'real life' experience of the peasant, whereas he is more likely to recognise his experience in the 'realistic' composition of Repin. The values that a peasant derives from a Repin are, for Greenberg, different to those of a Picasso, which is dependent on the cultural background of the viewer. For a 'cultivated spectator' of capitalist culture, he maintains, the reverse is true.

In his study of modernist painting, Greenberg declares that the move to the abstract and minimal undertaken by avant-garde artists during the early twentieth century was a way of discovering the material properties or 'essence' of painting. Throughout his work *Modernist Painting* ([1961] 1993) the ambiguous and awkward style of the depiction of human (and non-human) figures within modernist art is understood as a technique, an attempt by the artist to discover the material essence of painting through the avoidance of anything not relating to its material medium – such as representational content evoking subjective human experiences – and the removal of any recognisable visual content. According to Greenberg, the move to pictorial flatness (the reduction of perspective and flattening of planes) and abstraction (the reduction of recognisable figures) – which he perceived to be the general route taken by modernist painting – represented an attempt to remove the distorting effects of the subjective bodily experience of the artist. In painting, in particular, this was achieved by removing anything that was not apparent through direct, objective, purely visual observation, in order to elicit a more direct communication with the perception of the artist (and, conversely, the viewer) by eliminating any suggestion of the bodily experiences that underpin such a perception.

The wider philosophical context in which Greenberg's writing emerged during the early twentieth century reveals an even greater impetus to remove the bodily-based 'metaphysical' (or subjective) experience from the study of visual materials within the context of design. The historian Peter Galison (1990) provides an account of the substantial influence of logical positivism on the theory and practice of the visual arts during this period, particularly in relation to the turn from expressionism to functionalism within the Bauhaus during the late 1930s and 1940s. As Galison (1990, pp. 731-732) recounts, logical positivism in the visual arts combined two of the core philosophical attitudes of modern science: rationalism (the study of reality through logic) and empiricism (the claim that the only way to access knowledge is through direct observation). By adopting logical positivism as a philosophical position, both the material and visual arts within the Bauhaus in this period aimed to construct a 'modern' era in art and design that understood the world (and the designed artefacts produced in this world) through direct empirical observation of its simplest observable and measurable elements. According to Galison (1990, pp. 710-711), such an empirical approach guaranteed the exclusion of what logical positivism deemed unreliable: the metaphysical dimensions of belief, the mythological influence of the past and subjective bodily-based experience, as well as the decorative, expressionistic and non-functional aspects of the material world.

The dismissal of the bodily skill, performance and experience of the artist and viewer's perceptual experience, as was purported by Greenberg, shifts his study of avant-garde painting to that of the conceptual, purely logical and visually observable. This conceptual grounding leads to a distinction between the 'scientific' work of the avant-garde (attempting to discover the material essence of the pictorial) and the 'economic' mainstream visual culture that copied its artistic effects, each developed in parallel.[24] For Greenberg ([1939] 1988, p. 12), the devices, tricks, rules of thumb, strategies and themes that the 'scientific' avant-garde pioneered in styles such as abstraction and surrealism were exploited for economic gain by mainstream culture. In his eyes, such work became a 'mechanical copy' or a 'pretender' to the true intellectual and political style of the avant-garde.

1.2 The re-appearance of the body

The purely conceptual nature of Greenberg's writing regarding the avant-garde and popular visual culture finds its way into the more contemporary approaches of Spigel and Hagener in the study of popular visual culture. However, other contemporary histories and theories of modernist painting have critiqued Greenberg's ideas. Krauss (1986, 1993), in particular, argues that his formalist account of modernist painting is ideological, on the grounds that it neglects the contribution of those artists and thinkers in this period whose work focused on what she terms the 'optical unconscious' – the psychoanalytic, phenomenological and psychological aspects of the bodily experience that she recognises always underpins an artist's visual perception of the world (Krauss, 1993, p. 178).[25] Krauss's work is posited on Husserlian phenomenology, as developed by poststructuralist thinkers such as Jean-

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[24] In this respect, Greenberg maintains a socio-cultural formalist art historical approach, which aims to study the history of art through focusing on its development 'in parallel' to that of the rest of cultural history (Wind, 1985).

[25] Krauss' (1993, p. 178) alternative account to Greenberg's modernist project recognises that visual phenomena, far from being external to bodily experience, as Greenberg claims, have an 'unconscious' that is internal to the perceiver. Her notion of the 'optical unconscious' maintains that the world of visual phenomena, such as clouds, sea, sky and forest, have an unconscious that lies within the body of the perceiver. Such a model aims to include the perceiver's experience and knowledge, which work within an order that operates beyond the reach of the *purely* visual, in the visceral, temporal experiences of the body (p. 217). Krauss' work provides a re-imagining of the modernist project: the reduction of recognisable content – surrealism, flatness and abstraction – that Greenberg believed removed multi-sensory and subjective experience, as witnessed across an 'interval' of discrete practices such as advertising and experimental film, is always underpinned by an 'unconscious' bodily experience.

Francois Lyotard, Jacques Derrida and Roland Barthes, and points to an 'unconscious' bodily and experiential structuring of vision that is rooted in the visceral, bodily experience of the painter.

Krauss's (1993, pp. 178-179) revision of Greenberg's modernist project aims to reconfigure his decisive conceptual account of the style of modernist painting. She formulates this revision by means of three simple objections: first, this 'modernism' is tied to the privileging of a pure opticality; secondly, this opticality creates a hierarchy of taste that excludes too much of the unconscious and those artists who invest in it; and finally, the latter should be recognised through a re-formulation of modernism – one that recognises the contribution of the bodily and visceral unconscious that underpins visual perception. For Krauss, the ambiguous and minimal style of much of what she considers modernist painting is rooted in the psychoanalytical, psychological and phenomenological bodily experience of the artist.

Although Krauss re-introduces the importance of the visceral, lived body of the artist into the study of the style of modernist painting, her re-imagining of modernist painting is based on a phenomenological extension of psychoanalytic and linguistic analysis. As Crowther (2011, pp. 12-13) recognises, Krauss's work, as well as that of other writers on the history and theory of art such as W.J.T. Mitchell (1993) and Norman Bryson (1989), while intending to involve the body (and its visceral, phenomenological experiences), idealise its functioning by means of a textual analysis of the psychoanalytical meaning of images that derives from a wider semiotic reductionism.

The phenomenological roots of painting have been discussed extensively in contemporary studies of art. Joseph D. Parry's (ed.) *Art and Phenomenology* (2011), in particular, provides a case for art to be understood as philosophically significant through treating it as a kind of phenomenology. The significance of the functioning of the body of the artist itself in the study of art and painting has been discussed more closely in philosophy and the philosophy of mind, particularly in contemporary phenomenological studies of artistic style (Crowther, 2011, 2012), and in embodied approaches to the study of the formal elements of the visual arts (Johnson, 2009). Phenomenological approaches to the study of art are useful for the present discussion as they perceive the meaning of an artwork's form and style to be ontologically rooted in the functioning and experience of the body rather than resting on purely social and cultural or semiotic and linguistic grounds. These approaches revise and deepen the well-established formalist methods of the study of the history of the visual arts by recognising the importance of the body of the artist in shaping the meaning of both form and style.

1.3 Visual form and style as an expression of the body

Mark Johnson's *The Meaning of the Body: Aesthetics of Human Understanding* (2005) aims to bring bodily experience and functioning back into the processes of mind, perceptual experience and meaning-making as applied to the study of the materials of art. Johnson maintains that what can be termed 'mind' and 'body', although usually regarded by Western analytical philosophy as two distinct entities, are aspects of one organic process. Meaning-making in such an organic process runs much deeper than simply concepts and propositions; it is embodied in the physical processes, functioning and experience of the body acting in an environment.

Johnson (2005, p. 4) traces what he terms a 'disembodied' view of the mind to the influence of Rene Descartes on the Western philosophical tradition, establishing a distinction between body and mind on the basis of the separation of rational 'thinking' and bodily ‘feeling’. Such a conception, he argues, leads to a disembodied model of mind and meaning-making, in which the bodily processes that underpin the very development of mind disappear from the analytical descriptions. According to Johnson (2005, p. 7), the disappearance of the body results in a fundamental ontological divide between mind and body, cognition and emotion, fact and value, knowledge and imagination, and thought and feeling.

In illustrating the disappearance of the body, Johnson draws our attention to the way complex levels of bodily processes and adjustments make perception, movement and activity possible in the first instance. Giving the example of visual perception, he notes how “seeing would be impossible without those eyes’ existence in a body that makes a number of fine adjustments, such as holding the head in a certain way, keeping the body erect and pointed in a certain direction, and moving the body in ways that ensure a clear line of sight” (p. 5). To suggest how such an embodied understanding of mind, perception and meaning-making is passed over, or hidden from view, Johnson uses the phenomenology of Shaun Gallagher (2005), who distinguishes between the notions of ‘body image’ and ‘body schema’ that play equal roles in human experience. Gallagher (2005, p. 24) understands the former as a system of perceptions, attitudes and beliefs pertaining to one’s understanding of one’s own body, and the latter as a system of sensory-motor functions that operate below the level of self-referential intentionality. As Johnson notes, the ‘body schema’ may hide from our lived experience even while it makes perception, bodily movement and kinaesthetic sensibility possible in the non-conscious, pre-conceptual structuring of posture, movement and, ultimately, mind and perception.

The meaning of the body within an embodied conception of mind, for Johnson (pp. 274-275), is not of a body as a *thing* — an organised collection of skin, bones, blood, organs and fluids interacting together. The body cannot be understood as merely a physiological object interacting with other objects- but as an attitude, having a subjective, lived experience of its own that directs the body toward the world. What Johnson calls a 'phenomenological body' is based upon Merleau-Ponty's 'phenomenal body' or 'lived body'. As Bullington (2013, pp. 25-28) recognises, what Merleau-Ponty ([1962] 2008) calls the lived unity of the mind–body-world system is 'the lived- body'. The body understood as a lived body is both material and self-conscious, it is physiological and psychological, but these terms are not dichotomous, there is mind in the body and body in the mind. These realms are understood by Merleau-Ponty as levels, intertwined with each other, constituting a unified field. The self, the body and the world of things and others are neither separated from each other nor to be confused with each other, but rather can be seen as three sectors or levels of a unique field (ibid).

The 'phenomenological body' is an important part of what Johnson (2005, pp. 275-277) describes as five models (or dimensions) of a fuller description of the 'human body'- that of the biological, ecological, phenomenological, cultural and social, neither of which can fully describe the complexity of the existence of the human body by itself. The 'phenomenological body' is a body of a lived experience within the world, a living, moving and feeling body. Johnson's phenomenological body provides a useful approach to compliment the trajectory of this chapter (and thesis) – where Johnson recognises the body of a lived experience is immersed within an environment, this chapter, as well as Two and Three focuses upon the bodily dimensions of this system. The immersion of the body within an environment is described more fully in Chapters Four and Five.

1.3.1 *Embodied meaning-making*

Within the context of a phenomenological body, bodily movement, Johnson declares, is the basis of all human meaning-making, thought and language.[26] They emerge from the aesthetic dimensions of an embodied experience rooted in the organic functioning of the body in its environment. Johnson believes this is particularly exemplified by the visual arts; he argues that meaning-making in the arts often takes place outside the exclusive purview of language (Johnson, 2005, p. 218). By bringing together the pragmatism of John Dewey and the phenomenology of Gallagher and Merleau-Ponty, and linking them with contemporary thinking in embodied cognitive science, Johnson (2005, p. 1) demonstrates how "all forms of experience, consciousness, thought and communication would not exist without the brain operating as an organic part of our functioning bodies, which in turn are actively engaged with specific kinds of physical, social and cultural environments".

Johnson's notion of the 'embodied mind' positions the functioning of the 'higher' processes of mind (such as rationality and conceptual thought) within, or developing from, the 'lower' processes of the body (kinaesthetic activity, feelings, emotions and desire). For Johnson, every aspect of human activity is grounded in specific forms of bodily, sensory-motor engagement with the environment, pointing to the deep bodily origins of human meaning-making in its visceral connection (or coupling) with the world. What Johnson understands as embodied meaning-making in turn emphasises his position that all meaning-making is rooted in the organic functioning of the body as it interacts with its environment:

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[26] For a more focused discussion of the embodied mind and its implications for language, see Johnson's work with George Lakoff in *Philosophy in the Flesh: The Embodied Mind and its Challenge to Western Thought* (1999).

> An embodied view [of meaning-making] is naturalistic, insofar as it situates meaning within a flow of experience that cannot exist without a biological organism engaging its environment. Meaning emerges 'from the bottom up' through increasingly complex levels of organic activity; they are not the constructions of a disembodied mind. (Johnson, 2005, p. 10)

Embodied meaning does not just comprise what is consciously entertained through acts of feeling or thought; instead, it reaches deep down into a very corporeal encounter with the world (Johnson, 2005, p. 25); the deep-seated bodily sources of human meaning go beyond the purely conceptual and propositional to the bodily and experiential.

Johnson sees what he terms 'embodied meaning-making' as exemplified in the visual arts: the meaning of the form is embodied in the bodily-based, sensory-motor processes of the artist who creates it. The embodied processes of the functioning of the mind, he claims, have been neglected in the study of materials within the discipline of art history, with its exclusive focus upon the form of a work, as situated in the socio-cultural networks that give it shape:

> Today, we are the inheritors of views about art that were first consolidated in Enlightenment Europe. The rise of the sciences of human nature during the 17th century prompted philosophers interested in the arts to change their focus from the nature of art to an almost exclusive concern with how the mind works in aesthetic judgment. By focusing primarily upon the faculties of mind that gave rise to judgments about beauty – especially the faculties known as imagination and feeling – these philosophers ceased to regard art as a way of world-making. Even worse, their faculty [of] psychology relegated feelings and emotions to the secondary status of non-cognitive and merely subjective bodily states, unfitted to ground genuine understanding and knowledge. (Johnson, 2009, pp. 209-210)

Contrary to an embodied approach to mind, art history's inherited socio-cultural approach to the study of the materials of art maintains an inherent dualism between the domains of mind and body, between concepts (thought and cognition) and feelings (the body and subjectivity), in which concepts are conceived of as decisive and formal, not intimately related to the body, and feelings as simply perturbations of the body, not a fit grounding for concrete knowledge of the world. Such a hard dualism, Johnson (2005, p. 216) claims, aligns meaning with that of the cognitive and the formal, and unduly dismisses the bodily-based feeling from which cognition emerges.

In order to re-instate the functioning of the body, its experience and feeling, in the study of the materials of art, Johnson (2005, p. 216-217) uses a re-reading of the work of gestalt psychologist Rudolf Arnheim (whose work is discussed more fully in Chapter Two), pointing to the ability of a simple line to express, through perception, the bodily-based meaning and feeling of the artist that underpins its creation. The line itself expresses the embodied feeling and meaning of the movements of the artist who generated it – feelings such as harshness, calm, anger, happiness and sadness. What is important is that the viewer of the line is able to 'experience' this bodily-based meaning – that is, to grasp the embodied meaning of a particular scene or form with no recourse to language or proposition (Johnson, 2005, p. 225). For Johnson, all (visual) art is an exemplar of the embodied meaning-making of the artist, and as such requires an embodied, rather than a dis-embodied, philosophy of mind.

Although Johnson's embodied account of art provides room for discussion of the role and experience of the phenomenological body in the study of the visual arts, his analysis is brief – by focusing on the corporeal, it does not provide a comprehensive account of the more subjective, experiential and phenomenological aspects of an artist or viewer's, embodied mind and perceptual experience. In *The Phenomenology of the Visual Arts (Even the Frame)*, Crowther (2011, p.14) offers a more comprehensive account of the phenomenological aspects of style in the visual arts, describing what he sees as a disappearance of the body in the reductive socio-cultural and textual analyses of the meaning of visual images.[27] Crowther (2011, p. 18) builds a phenomenology of the image, drawn from the phenomenology of Merleau-Ponty, rather than a history of its social uses and meaning; he does not offer a system to replace such reductive approaches, but a phenomenological theory of meaning in the visual arts, with implications for both art history and theory (p. 33).

1.3.2 *The 'phenomenological depth' of painting*

Crowther (2011, pp. 3-7) argues that what is distinctive in the creation and meaning of visual style in the arts – its phenomenology – is either repressed or distorted in socio-cultural approaches; each work possesses various degrees of what he terms the artist's 'phenomenological depth', but this is repressed by the focus on social and cultural factors. Crowther's concept of the phenomenological depth of an image is drawn primarily from the phenomenology of Merleau-Ponty and the philosophy of Gilles Deleuze, and centres on the ontological reciprocity of the subjective and objective experience of the painter. For Crowther (2011, p. 3), an embodied subject (the artist or viewer) is immersed in a physical world that, although not dependent on the subject for its existence, determines the subject's character, while the nature of the physical world (as perceived by the subject) is equally given a specific character through the range of cognitive and motor capacities that the subject brings to bear on it. The ontological structure of the subject and its objects of experience are reciprocally correlated at the experiential level; each is a part of the full definition of the other. Crowther (2011, p. 3) uses the term ‘phenomenological’ in relation to aspects of this reciprocity, particularly “how the relation between subject and object of experience changes character on the basis of different modes of perception and action”.

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[27] Crowther (2012) recognises that a purely conceptual approach to the style of modern painting, such as Greenberg's, sets the work apart as something external to the painter's bodily movements and skill. Such thinking leads to the idea that a particular work of art could be physically reproduced by someone else following a set of instructions (p. 196), and "results in art gradually dismissing, and then shedding its sensuous particularity, to end up as a quasi-philosophical statement of a dubious kind" (p. 198). Crowther, in the Deleuzian spirit, foregrounds the skill and performance of the artist: he maintains that painting does not a material essence unique to it as a specific medium, but "[its] real essence … is to be found in the study of the arrangements of paint marks upon a plane surface, and the phenomenological processes that underpin such arrangements" (p. 195).

Crowther’s (2011, p. 9) notion of phenomenological depth argues that an artwork’s visual style embodies or expresses, the complex relation between the painter’s subjectivity and the objects of their perception, knowledge and action. Being rooted in the performance of the artist’s body, it runs much deeper than the socio-cultural layer. Regarding the specific phenomenological depth of painting, Crowther maintains:

> On the one hand, it reveals how [the painting’s] represented subject matter comes to be seen and stylized in visual terms through the artist’s bodily positioning; and, on the other hand, this revelation is made possible by the painting’s auto-disclosure as a specific work, composed from this unique configuration of gestures. Through painting, the virtual and the physical, the world and the body, are shown to inhabit one another simultaneously and inseparably. (Crowther, 2011, p. 77)

Recognition of the phenomenological depth of a painting’s style deepens the formal socio-cultural study of its meaning by including the physical activity, gestures, of the artist and the way they manipulate the work. Crowther (2011, p. 73) aims to “probe further and clarify painting’s distinctive role *qua* gestural activity in modifying the relation between subject and object of experience” – that is, to recognise the painter’s phenomenological, bodily presence in their way of acting and performing, embodied or expressed in the visual style of the artwork.

1.3.2 *Style embodies a way of acting upon the world*

In *The Phenomenology of Modern Art* (2012), Crowther applies his phenomenological approach to the rescue of the notion of style from what he describes as a reductive, socio-cultural art history. Primarily concerned with modernist painting, he re-frames the idea of style in terms of how it 'embodies' of a particular way of acting upon the world, which emerges through the artist's gestures and movements (Crowther, 2012, p. 2). Espousing Merleau-Ponty's phenomenology, as extended through the philosophy of Gilles Deleuze, he describes how the meaning of a work's style is emergent through both the phenomenological depth of the painting and the viewer's perceptual experience of that depth. He argues that the meaning of visual style is not propositional or conceptual, but emerges from, and is immanent within, the relationship between the artist's activity and performance (as embodied in the work) and the direct sensory experience of what he terms "the always-participating mobile viewer" (Crowther, 2012, p. 65).

Crowther's work offers a conceptual revision of visual style (primarily, in the study of modernist painting) in an art historical context, which understands the style of an artist's work as the individual way they represent the world, and centres upon such things as how they handle the paint and their choice of colour and subject matter, as well as their compositional strategies. Crowther (2012, pp. 2-3) believes that the aesthetic aspects of the style of a work can be recovered by situating them within the wider phenomenological framework emerging during the early twentieth century (primarily drawing on Merleau-Ponty's writings coupled with a phenomenological reading of Deleuze) as a way of visually disclosing attitudes towards the world that engage with the deepest aspects of phenomenological human experience.

For Crowther (2012, p. 2), the point is not just the way a picture looks; the picture embodies a way of acting upon the world through painting (and sculpture) that always changes the character of the subject matter being addressed in some way. As such, a distinctive style should not be understood as created *ex nihilo*; the artist inherits idioms that have been opened up by others and works with or transforms these idioms through their own phenomenological, perceptual experience. In this sense, there are enough shared characteristics in what Crowther terms 'modernist painting' (such as pictorial flatness, and the reduction of representational content) to enable him to study and discuss a 'stylistic tendency'[28] through analysis of the work of many of the artists of this period.

There is another crucial aspect of Crowther's work that is important for the central focus of this thesis: he maintains that the study of the meaning of style, undertaken in a phenomenological framework, comprises an 'aesthetic disclosure' rather than a discursive exposition. The meaning of style emerges through direct visual perception of the work, instead of situating it exclusively in a socio-cultural framework. Such a position carries the epistemological implication that the relationship between the subject and object (the work itself) of experience is not absolutely fixed but constantly transformed by the new circumstances of the viewer's own perceptual experience, the “presence of an always-participating mobile viewer” (Crowther, 2012, p. 65).

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[28] Crowther (2012, pp. 4-5) summarises what he sees as the four stylistic tendencies considered by conventional art historical discourse as representing the general route for modernist painting: "(1) The overcoming or abandonment of traditional academic notions of ideal form, 'finish' and skill in terms of the application of paint, and compositional criteria. This overcoming is intended, often, to achieve some perceptually more direct … communication with the viewer. (2) An emphasis on subject matter that is not constrained by traditional criteria of artistic and moral proprietary. … This involves mainly the abandonment of such things as classical or biblical subject matter, and its replacement with scenes from everyday domestic and public life. (3) The embodiment of new pictorial codes that represent through partially, or entirely, adopting non-figurative means, and which extend, correspondingly, the kinds of perceptual relation that can be expressed directly through visual art. (4) An insistently *planar* emphasis (with a correlated diminution or elimination of perspectival accents). Even when Modern works have a strong figurative content, they tend, nevertheless, to look *flatter* than works that present such content through conventional perspectival means. … Modernist works declare it more directly – as a feature of style."

What Crowther (2012, p. 65), employing Merleau-Ponty’s terminology, calls a “reciprocal interaction and modification” describes the reciprocity between perceiver and perceived in which the work itself, as well as the viewer’s perception, is reciprocally transformed through the experience of the work. This view underpins his re-reading of the ‘awkward’ and ‘unfinished’ stylistic tendencies of specific works of modern painting, principally by approaching them through direct sensory experience. The emergent meaning of the work, for Crowther, lies in a reciprocal dialogue between the phenomenological depth of the artist as expressed in the work and the phenomenological perceptual experience of the viewer.

Crowther demonstrates his phenomenological approach through an analysis of Édouard Manet’s *Le Dejeuner sur l’Herbe* (1863) (fig. 1b), beginning his reading of the work with an analysis of its brushwork and compositional elements. Crowther (2012, pp. 63-65) speculates that the painting does not attempt to conceal the brushwork used to present the figures and content, but instead reveals the thickness of both brush and paint in the execution of the intensely detailed forms, emphasising the emergence of the figures from their material ground. In some areas, the painting even seems unfinished (the boat and trees in the background, for example), and in this sense it presents the characters and scene as more ambiguous, more removed from a defined interpretation. He also points to the presence of a strong sense of instability in the work, manifest in its spatial inconsistency and oddness – for example, the semi-clothed woman appears closer to the viewer than her companions, creating a condensed, flatter-looking painting by removing any defined perspective or spatial markers.

Crowther's phenomenological reading of this example of modernist painting provides two points that are key to an understanding of the meaning of 'awkward' features in the style of a work: first, the phenomenological depth of a painting is an embodiment or expression of a way of acting upon the world that is manifest through the painter's skill, which can be read in the brushwork and paint; secondly, such stylistic features are always described through the presence of an 'always participating mobile viewer'. To experience the painting's phenomenological depth is always to do so through the direct visual experience of these features that are always modified within the context of that perceptual experience.

Figure 1b has been removed due to Copyright restrictions

1.4 The 'phenomenological depth' of visual style and form

An embodied and phenomenological rereading of form and style in the visual arts, which recognises the bodily-based processes of an embodied mind, adds what Crowther calls a 'phenomenological depth' to the study of the form of a painting or artwork. In extending established formalist approaches to the study of art, Johnson's account of the work of Arnheim, and Crowther's adjustment of Greenberg's work, formulate what could be called an 'embodied formalism' that refers to a phenomenological depth of form and style, rooted in a bodily-based meaning that emerges through the expression of the artist's movement and performance, embodied within the form and style of an artwork, as is perceived through the phenomenological perceptual experience of the viewer.

Crowther's phenomenological recovery of visual style in an existential phenomenological framework provides two important ideas for this chapter. The first is that the meaning of the formal style of a work, phenomenologically, lies in the artist’s way of acting in the world through the activity, skill and performance that result in the painting’s brushwork, colours and compositional strategy – a phenomenology that is rooted in the embodied mind of the artist. The second is that the phenomenological depth of the meaning of a work’s style is experienced visually, through the perceptual experience of the work, and as such it is conditioned, in part, by the circumstances of the viewer’s own perceptual and sensory experience**.** Yet, whereas Crowther’s concept of phenomenological depth provides the presence of the body of the artist, he only alludes to the presence of the body of the viewer, focusing more attention upon the former in his analysis of visual style. His work does suggest, however, that the meaning of an ambiguous, awkward or strange visual style in some way requires the perceptual presence, or phenomenological depth, of the viewer to provide reciprocal interaction and modification.

To more fully realize the extent of the reciprocity between an awkward visual style (as an expression of phenomenological depth) and the viewer’s perceptual experience, focus now returns to the context of audio-visual materials, particularly an artistic account of the formal style described within the advertising film the chapter began with. The work of Martin Walsh (1981), in the field of film studies, will be used to provide an account of what he describes as the ‘estranged’ visual style of the film work of experimental filmmakers Jean-Marie Straub and Danielle Hulliet (1975). Walsh describes how the particular estranged and unusual ‘Brechtian’ formal presentation of figures and context presents everyday events in an unusual way to a spectatorship that is active, reflexive and critical. Such an estranged filmic form suggests, rather than gives, a possible meaning, and points to a non-hierarchical relationship that includes the participatory reflexive perception of the viewer in the process of meaning-making.

1.5 Reciprocal interaction with the viewer

Walsh's work, *The Brechtian Aspects of Radical Cinema* (1981),[29] presents a paradigmatic case study of the formal techniques of 'estrangement' and 'epic theatre', drawn from the work of German playwright Bertolt Brecht. These techniques permeated the wider film culture throughout Europe during the 1960s and 1970s. Walsh begins his reading of Straub and Hulliet's experimental film work by revealing their central focus: he cites a letter written by composer Arnold Schoenberg in 1913 in response to the proposition that his opera *The Lucky Hand* could be filmed for a cinema audience:

> My foremost wish is for something the opposite of what the cinema generally aspires to. I want the utmost unreality. The whole thing should have the effect (not of a dream) but of chords. Of music. It must never suggest symbols, or meaning, or thoughts, but simply the play of colours and forms … just as music never drags around a meaning with it … so too this should simply be like sounds for the eye. (Arnold Schoenberg cited in Walsh, 1981, p. 104)

Schoenberg's response, which aspires more to a presentation of the 'utmost unreality', which he perceived as the opposite of narrative cinema, is based on the premise that meaning cannot be directly given to an audience through the form of the production itself, but only suggested through its presentation. Meaning is formed by, and emerges from, the interaction between the work and the audience's perceptual experience of it. Schoenberg recognised that, just as with chords in music, the production of an opera never "drags around a meaning", it can only suggest a meaning to the audience's perception. This is achieved through the unreality of its formal presentation. A work never provides a defined meaning; rather, it presents 'chords', 'colours' or 'forms' to the audience's experience as a means by which they can find a meaning.

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[29] Posthumously published by the BFI in 1977.

Walsh argues that the unreality stressed by Schoenberg as a way of suggesting a possible meaning in his work is also central to Straub and Hulliet's filmic adaptation of his opera *Moses and Aaron* (1975). Their arrangement of the opera uses a strange, ambiguous, 'unreal' filmic presentation, in which the material apparatus (the camera) is foregrounded over the narrative events. Just as in Schoenberg's operatic performances, a sense of unreality is evoked by the way the events are presented – the unusual camera angles, the minimal or sparse presentation of the mise-en-scène and context, and the rejection of narrative continuity all work to present the 'chords', or the apparatus, at work behind the film, rather than any concrete narrative meaning.

1.5.1 *The Brechtian aspects of experimental filmic form*

Walsh's analysis of Straub and Hulliet's work focuses upon the particular use of the Brechtian theatrical techniques of 'distancing' and 'estrangement', and provides a reading of the specific filmic techniques that are used to estrange or distance the work from the viewer's everyday experiences, presenting everyday scenes in unreal ways. Walsh exposes how the reflexive perceptual experience of the viewer is particularly evoked through the ambiguous or strange scene presentation, which Straub and Hulliet achieve by foregrounding the camera (the material apparatus of their production), rather than the ideological apparatus of narrative or image.[30] Such an approach, Walsh recognises, reconfigures the assumption of a hierarchy in the meaning of an avant-garde artwork (a work that contains the meaning within its intrinsic structural form) and the reception of that meaning by the audience. As Keith Griffiths outlines in his introductory remarks to Walsh's text:

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[30] In Straub and Hulliet's case, Walsh reveals, this was incorporated in a deliberately political fashion to question the ideology behind the representation of society by capitalist culture, which they believed was reinforced by the dominant paradigm of Hollywood's narrative techniques.

> The artist-audience relationship need not be a hierarchical one. For the films of this ‘radical strand’ invite the spectator, in various ways, to think about, reflect on what s/he sees, and place it against his/her own experiences. There are no answers, only questions, and the audience’s capacity to engage in a process of discovery of primary importance. (Griffiths, in Walsh, 1981, p. 2)

The specific focus on the destruction of a hierarchical relationship between artist (and artistic works) and spectator through recognition of the reflexive experience of the viewer in ‘estranging’ filmic techniques is exemplified by the presentation of ambiguous or unusual content as part of the creation of the meaning of the work.

Walsh’s suggestion that the participatory reflexive capacity of the spectator is central to the creation of meaning in a film work is drawn from Brecht’s writing on the theatrical practice he formulated during the 1930s.[31] The perceptual experience that Brecht foregrounded, as Reinhold Grimm (1997) notes, was the participatory and reflexive capacity of the viewer’s individual perception. In particular, Grimm points to the distinction Brecht made between the concept of emotion (‘aesthetic empathy’) – prevalent in the sort of dramaturgy he sought to overcome – and that of reason, which he strove to bring to the fore.[32] As Juliet Koss (2006) further outlines, Brecht’s work during the 1930s compromised the nineteenth-century aesthetic notion of empathy (*Einfühlung*) in theatre[33], on the grounds that its model of spectatorship did not promote the audience’s individual critical engagement with the work (Brecht’s critique of ‘empathy theory’ is outlined more fully in Chapter Three). Koss (2006, pp. 145-146) notes how Brecht’s work emerged in the context of twentieth-century psychology's physiological conception of perception, which recognised the perceptual differences between individual spectators in the process of spectatorship.

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[31] Brecht’s work was highly influential in the experimental film and video community during the 1960s and 1970s across Europe, especially in the work of the London Filmmakers Co-op, Malcolm Le-Grice (1995) and video artists such as Stephen Partridge (1992).

[32] Brecht believed that invoking an emotional response in audiences was to treat them as passive viewers of a drama that unfolded in front of them, ‘paralysing’ as opposed to intellectually activating them (Grimm, 1977, p. 38).

[33] For Brecht, the aesthetic term ‘*Einfühlung*’ was associated with bourgeois entertainment for the masses, which disengaged the viewer’s critical and intellectual perceptual participation in the work.

Brecht's distinction between emotion (empathy) and intellect, as Grimm (1997, p. 37) maintains, was not a total rejection of the emotional response of the spectator in pursuit of pure reason; rather, it was a "sound reduction and curtailment" of emotion and more an argument for 'intellectual empathy' which would allow experiential reflection by the individual members of the audience. The recognition of the reflexive capacity of the theatrical audience resulted in the creation of a specific theatrical technique that Brecht termed the 'V-effect' ('*Verfremdung*') – a distancing or estranging effect. As Frederic Jameson (1982, pp. 43-83) recounts in *Brecht and Method*, the V-effect is a theatrical device in which the reflexive capacity of the spectator is recognised as playing a significant participatory role in the creation of the meaning of the presentation of the performance itself, resulting in the use of specific formal theatrical techniques. These, Jameson says, aimed

> […] to reveal what has been taken to be eternal or natural – the reified act, with its unifying name and concept – as merely historical, as a kind of institution which has come into being owing to the historical and collective actions of people and their societies, and which therefore now stands revealed as changeable. What history has solidified into an illusion of stability and sustainability can now be dissolved again, and reconstituted, replaced, improved. (Jameson, 1998, p. 47)

The use of specific formal techniques, such the direct address to the audience, was one way that Brecht's 'epic theatre' disrupted the staged illusion by generating a distancing effect. Other techniques were the estranged presentation of scenes through the use of sparse props and decoration, out-of-order narrative scenes, and an 'indifferent', anonymous acting style, in which the actors did not represent immediately recognisable characters.[34] The objective of these effects, as Willett (1964, p. 92) states, was "to appear strange and even surprising to the audience", removing any empathetic identification with an ideologically presented (complete) character, which Brecht believed 'paralyses' the audience.[35] Such estranging techniques aimed to evoke self-reflection in the audience, encouraging them to act as participants in the meaning-making of the work.

Walsh reveals that the self-reflexive relationship between the perceiver (the audience) and the perceived (the performance) through the estrangement or distancing of the theatrical work also underpinned the experimental work of many filmmakers across Europe from the 1920s to the 1970s.[36] He shows that such estranging techniques were part of a specific political aesthetic enquiry during this period, as exemplified by his reading of Straub and Hulliet's materialist presentation[37] of Schoenberg's opera, *Moses and Aaron* (1975). The following section outlines how Walsh's analysis is illustrative of the way such alienating and distancing techniques as minimalism, ambiguity, anonymity and unusual narrative presentation in a filmic context evoke the participatory, reflexive perception of the viewer, actively involving their perceptual experience in the creation of the work's meaning.

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[34] Brecht's 'intellectual empathy' can also be seen in similar techniques outlined by Russian formalist artists such as Viktor Shklovsky (1914), whose literary '*ostrannenie*' (literally, 'making strange') uses the same techniques as Brecht's distancing effect. Such techniques of 'making strange' have recently been re-invoked in the domain of media and film studies (Van de Oover, 2010).

[35] Brecht's work focused on the separation of what he called the '*Veränderung*' (or Aristotelian idea of 'fusion') of the various elements of a work (Jameson, 1998, p 117). Brecht aimed to create a parallel, separated work, which would only form an organic unity by involving the active spectator, as opposed to a heterogeneous mechanistic fusion. As John Willett (1964 pp, 37-38) remarks: "[a]s long as the expression *Gesamtkunstwerk* ('integrated works of art') means that the integration is a 'soup', as long as the arts are supposed to be fused together, the various elements will equally be degraded, and each will act as a mere 'cue' to the rest. The process of fusion extends to the spectator, who also gets thrown into the melting pot and becomes a passive (suffering) part of the total work."

[36] Particularly that of Sergei Eisenstein, Dziga Vertov, Jean-Luc Godard and Jean-Marie Straub (Walsh, 1981, p. 2)

[37] As Walsh (1981, pp. 95-96) recognises, Straub and Hulliet's present *Moses and Aaron* on materialist terms; that is, rather than presenting an image as a 'realistic' (or rather illusionist) copy of the world, they foreground the material apparatus that creates the image – in this case, film. As Walsh notes, where in dominant narrative cinema the use of sound, editing and camera placement aims to reinforce the authority of the image, in Straub and Hulliet's work, this is reversed (p. 96). Instead, they present the image in a way that emphasises the material apparatus of the camera, and thus aim to escape the ideological convention of narrative.

1.5.2 *The Brechtian aspects of Moses and Aaron*

Walsh finds three particular distancing techniques at work in specific scenes of Straub and Hulliet's *Moses and Aaron* (1975), which prioritise the spectator's reflexive participation in the meaning of the work: the use of unusual camera angles; the reduction of recognisable content and context; and the construction of a filmic form that avoids following the content-of-the-image route. These techniques reduce what is recognisable by presenting the work in unusual or strange ways, and is primarily achieved through breaking the hold of the canonical ideology of narrative devices of the sort employed by Hollywood,[38] particularly the idea of continuity editing. The result is a sparse and unrecognisable mise-en-scène, strange and unusual camera angles, and long-drawn-out shots.

The opening shot of *Moses and Aaron*, as Walsh describes (1981, pp. 96-97), begins with an unusual high-angle, medium close-up of the back of Moses' head. Although he is singing, his face is entirely hidden (fig. 1c).[39] Walsh contests that such a shot breaks the narrative film ideology that both camera and sound must be directed toward re-enforcing the image track; instead, he represents *Moses and Aaron* as a 'sound film': the camera presents the scene in support of the soundtrack's content. The unusually high angle of the shot also ensures that there is little sense of any detailed contextual background, which is sparse and ambiguous, revealing only Moses' head and the brown earth that surrounds it. The shot itself is drawn out, lasting around eight minutes, during which time the camera remains static, maintaining the strangeness of the presentation for as long as possible.

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[38] These devices are also employed in television.

[39] The technique of unusual camera angles can also be seen in Constructivist photography during the 1930s, specifically in the work of Alexandr Rodchenko. Rodchenko aimed to break conventional photography's illusory presentation of society, what he termed the "Belly Button View", by presenting objects through unusual camera angles. Other futurist artists and writers attempted similar techniques: Viktor Skhlovski's (1911) '*ostrannenie*' ('making strange') was a literary technique that aimed to present a scene in an ambiguous, strange way by describing the consequences rather than the object, or by estranging a scene through presenting it from the point of view of an animal or on-looker.

Figure 1c has been removed due to Copyright restrictions.

The unusual nature of the work also functions at another level in the way the filmic space itself is presented: the camera does not support what might be expected, or be recognisable, in terms of conventional narrative film, but presents another aspect of the event entirely. In the example of another scene depicting a conversation between Moses and Aaron, the narrative continuity of filmic space in which the spectators would normally find themselves is completely destroyed (Walsh, 1981, pp. 97-99). Here Walsh reveals how Straub and Hulliet refuse to situate the viewer in the world the film represents, in contrast to the classical narrative procedures of shot, reverse shot.[40] Rather than using the 'over-the-shoulder' continuity techniques of narrative film, Straub and Hulliet set the camera at a distance, at a severe diagonal angle to the performers, and this keeps the viewer at a distance from the scene's events (fig. 1d).

Figure 1d has been removed due to Copyright restrictions.

As Walsh reveals, the camera shots do not follow the conventional narrative ideology of a 'conversation'; rather, they distance or estrange the scene by supporting the more ‘un-representable’ relationship between Moses and Aaron (fig. 1e). The specific effect of making the filmic space unrecognisable by presenting it through an unusual condition (the relationship) makes it almost impossible to mentally reconstruct a ‘real’ space in which the actions and meaning occur. Such a distancing effect requires the viewer to have recourse to their reflexive experience in order to situate themselves in relation to the scene.

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[40] These procedures that Walsh points to are that of the shot-reverse-shot technique, which places the camera to one side of the eye-line of the characters (over-the-shoulder shots), putting the spectator in the space of the narrative.

Figure 1e has been removed due to Copyright restrictions.

According to Walsh’s reading of Straub and Hulliet’s experimental film work, the use of Brechtian defamiliarising techniques foregrounds a meaning that only emerges from the interrelationship between the participatory reflexive perception of the viewer and the unusual, strange and minimal presentation of the work. The scenes taken from *Moses and Aaron* illustrate how, through the abstract, sparse and unusual presentation of an event and characters, what is seemingly materially absent in the work (a defined meaning) is emergent through the involvement of the spectator’s own perceptual experience. The techniques of strange and ambiguous camera angles, long-drawn-out shots, minimalistic presentation of scenes and content, and the destruction of filmic space are used to evoke the active participation of the viewer’s reflexive perception in such a way that they ‘complete’ the meaning of the work in their own terms.

The interrelationship between the estranged form of an artistic film work and the participation of the spectator’s reflexive perceptual experience that results in the meaning of the work has implications for the study of other audio-visual materials that use such formal techniques. As Walsh shows, the film of *Moses and Aaron* was made specifically for television,[41] suggesting that such a reflexive perceptual participation could be directed not only towards an artistic audience, but also a televisual one. To illustrate this point, the following analysis of Hamlet Cigars' advertising film, *Music Teacher* (1968), will focus on the use of three of the techniques of estrangement or distancing that Walsh identifies in *Moses and Aaron* which point to the importance of the participation of the reflexive perception of the audience in creating the meaning of the work. These are the use of unusual camera angles; the reduction of recognisable content and context; and the construction of a filmic form that supports not the narrative events of the image track, but the relationship between the characters in the scene. These techniques, in the context of Walsh's analysis, reinforce the notion that the meaning of a work is not to be found wholly in its material form (in a socio-cultural context), but is emergent, in part, in the viewer's participatory experience of the work.   .

1.5.3 *The Brechtian aspects of television's filmic form*

Hamlet Cigars' *Music Teacher* (1968) describes an everyday situation, a piano lesson, portraying the teacher's mounting frustration as he attempts to teach a young boy to play the piano. The student persists in hammering the keys, producing an out-of-key and out-of-sequence run of notes. The teacher's anxiety eventually causes him to reach for his Hamlet cigar. As he lights up, he is transported into a world of his own, accompanied by a soothing rendition of Bach's *Air on a G-String,* bringing with it calm and tranquillity, banishing the chaotic, noisy reality around him. As in Walsh's analysis of *Moses and Aaron* (1975), it is the relationship between teacher and pupil, and the shift from chaos to calm, that underpins the entire formal structure of the work, removing it from immediate recognition of a given narrative by invoking the active perception of the viewer.

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[41] Walsh (1981, p. 95) notes how the film was financed by German Television's Third Channel, as well as by contributions from Italian and French sources. This can be seen, in the context of Lynn Spigel's work, which focuses on the US, as consistent with the increasing interest in experimental film techniques among commercial institutions during the 1960s and 1970s.

The structure of the work, as well as the construction, type and length of its shots, and its movements and rhythms, do not support the image track itself, but register the aesthetic change from chaotic and noisy to calm and soothing through the sparsest possible means, with minimal camera movement. The entire work consists of eight shots of only three types (fig. 1g): close-up, extreme close-up and medium, maintaining a single repeated pattern of close-up and medium shots throughout. It is divided into two halves: one is representative of a chaotic aesthetic, punctuated by the student's out-of-key playing; the other shows a transition to a calm, soothing state, with the smoke rising from the Hamlet cigar.

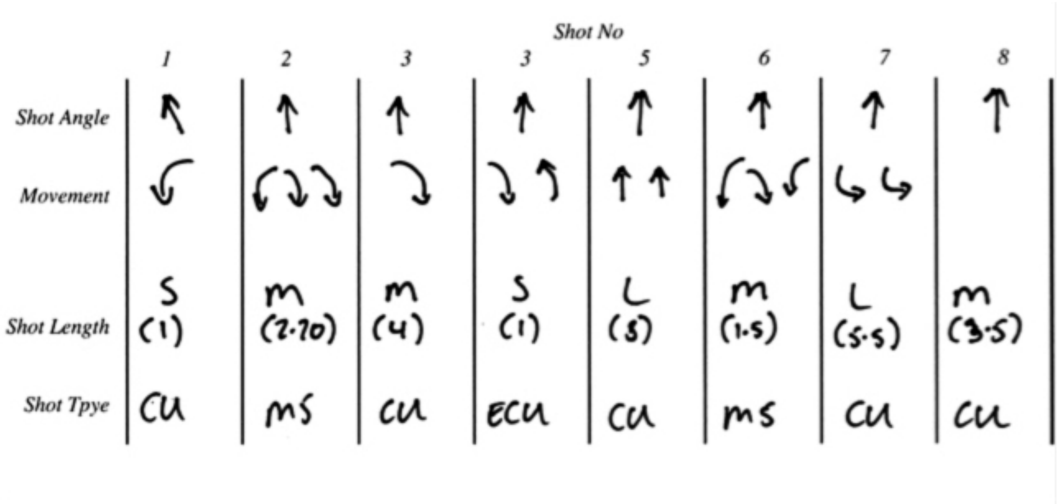

Figure 1f has been removed due to Copyright restrictions.

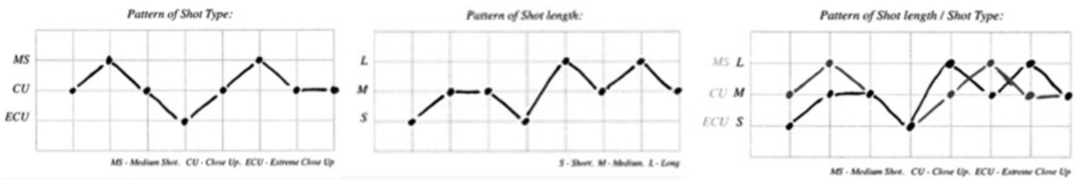

Fig. 1g. A formal analysis of Hamlet Cigars' *Music Teacher* (1968): (left to right) shot type; pattern of shot length; pattern of shot length against shot type

The first, 'chaotic' half of the film is constructed from a pattern of short and medium-length close-ups and medium shots. The flow is broken midway in shot four by the introduction of the product (the cigars) through the only extreme close-up of the work, heralding the shift to an atmosphere of calm as the teacher begins to smoke his cigar, followed in shot five by a piano rendition of Bach's *Air on a G-string*. In the second 'calm' half, the pace of the work changes. It is constructed from long and medium-length shots, slowing the work down through a similar use of medium and close-up shots which run counter to the student's continued, chaotic stabbing of the keys portrayed in the image track.

Figure 1h has been removed due to Copyright restrictions.

The sparse, blank, white backgrounds, the minimal contextual details (in terms of the props used to convey the setting of a music lesson), and the characters' dress which is pared down to simple uniforms (fig. 1h) reduce what is experientially recognisable, distancing the viewer in order to evoke a perceptual reflexive response. The estrangement of the work through sparse mise-en-scène is extended into the minimal, anonymous presentation of the actors' character traits, such as those of the music teacher himself. In Brechtian terms, this reduces the 'paralysing' emotional empathy that other ideological presentations of the same character could impose, and evokes a further reflexive response in the spectator. The teacher is presented as almost indifferent: he engages in the scene through little more than slight hand gestures and the subtlest of facial expressions showing his change of mood from disdain to peace.

Hamlet Cigars' *Music Teacher,* like *Moses and Aaron*, can be understood as a 'sound film' – that is, it is driven by the soundtrack rather than by a narrative supported by images. As Walsh's reading of *Moses and Aaron* illustrates*,* the camera placement portraying the conversation between Moses and Aaron does not support the ideological narrative 'image' of a conversation, presented as an 'event', but rather the relationship between the two characters, thus distancing the scene from conventional recognition. In *Music Teacher*, the length of the shots support the soundtrack, shifting from the chaos of out-of-key notes to the calm rendition of *Air on a G-string*, which in itself is representative of the relationship between the teacher and his pupil. The Brechtian distancing techniques at work in this example of advertising film estrange the work, evoking the participation of the viewer's reflexive perception in a similar way to that which Walsh describes in *Moses and Aaron*.

1.6 The 'phenomenological depth' of the viewer

A Brechtian analysis of estranged filmic forms (in both avant-garde and advertising films) recognises the participation of the reflexive 'intellectual empathy' of the viewer in the production of meaning. This reflexive perception, however, is not the bodily-based perception described by Crowther as 'phenomenological' or Johnson as 'embodied'; rather, it is intellectually reflexive, evoked in the service of a political and social concern. The bodily-based feeling and subjective processes of the functioning of the spectator's body are not described, only the spectator's more reflexive, intellectual experience. However, once situated in the context of phenomenology, Walsh's concept is deepened by Crowther's notion of phenomenological depth. It extends the meaning of the awkward style of the work into the bodily-based dimensions of both artist and viewer, emphasising the fact that the work expresses the embodied perceptual experience of the viewer that experiences the phenomenological perceptual experience of the artist through the form and style.

In the phenomenological context of Crowther's proposition that the embodied visual style of painting embodies or expresses a way of acting upon the world, the 'meaning' of the formal filmic style of estrangement (the ambiguous and unusual presentation of figures- human and non-human) outlined by Walsh functions in a similar way – that is, it is emergent in the presence of the artist's bodily experience of acting in the world (embodied in the style of the work) as directly perceived by the always-participating, mobile, embodied viewer. In Walsh's terms, it can be argued that such an estranged filmic form evokes a bodily-based, reflexive, perceptual participation, a reciprocal interaction and modification as Crowther describes, adding further phenomenological depth to the work; *the depth of the viewer plays as much a role in the creation of a work's meaning as the depth of the artist.*

1.7 Conclusion

In questioning the disappearance of the functioning of the body from what has been described as a reductive socio-cultural approach to the study of visual materials of popular culture, this chapter provides a revision of the notion of visual style within the study of painting that recognises the role of the phenomenological body, a body of a lived experience within the world, a living, moving and feeling body. Such a revision perceives that there is a phenomenological depth to form and visual style, which extends into the bodily skill, performance and experience of the artist, as well as suggesting the importance of the bodily-based perceptual experience of the spectator. In recognising this depth this chapter argues for an analysis of the meaning of a work of visual culture that is embodied, not held within the work itself or within socio-cultural frameworks alone, underpinned by a more comprehensive account of the bodily functioning and perceptual experience of both artist and viewer.

Employing the phenomenological approach of Crowther (2011, 2012), the chapter argues that to include the body is to *study the style of a visual work (in this case, an awkward abstract visual style) as an embodiment or expression of a way of acting upon the world – read through the artist's manipulation of the paint – as perceived through the perceptual experience of the always-participating mobile viewer*. Although the work of Crowther and Johnson provide an embodied approach to the study of an artist's bodily performance in the form of an artwork, the bodily experience of the viewer (which lends a further phenomenological depth) is somewhat marginalised.

A second point arises from this synthesis of the literature: whereas a socio-political context retains a hierarchy in the development of the materials of art and popular culture, this is blurred when the bodily-based perceptual experience of both the artist and viewer are more fully accounted for. However, while Johnson and Crowther provide access to the embodied and phenomenological depth of art and painting, they only do so by using art as an exemplar of an embodied and phenomenological process of meaning-making, other visual materials, such as popular culture, are not factored into their work.

In order to bring these concerns together to provide a more comprehensive account of the participatory, bodily-based perceptual experience of the viewer in the study of the style and form of more diverse materials of visual culture, Chapter Two focuses attention upon the reciprocal relationship between the embodied perceiver and what is perceived, and the role the perceiver plays in the meaning of visual style. This is achieved through a survey of ‘constructivist’ accounts of perception of the early twentieth century, as applied to the visual arts, drawing primarily on the work of Gombrich (1959). Gombrich’s work provides an important trajectory for Chapter Two; he applied his recognition of the projective ability of the active perceptual experience of the beholder, in the experience of ambiguous and minimal visual materials, to the study of a diverse collection of visual materials, including Rorschach ink blots, Chinese calligraphy, advertising matter and painting.

Chapter Two

The Expressive Relationship Between Perceiver & Perceived

This chapter focuses more closely on the reciprocal relationship between the embodied perceiver and the strange and ambiguous formal style of figures within visual and audio-visual materials. This is achieved primarily through a survey of two theoretical frameworks drawn from the psychology of perception and the visual arts during the 1960s and 1970s, with a particular focus upon the multi-sensory and experiential aspects of the perceptual experience of visual materials. The chapter juxtaposes, on the one hand, an often-neglected 'constructivist' account of perception in the visual arts, promoted primarily by Gombrich, and the 'gestalt' (formalist) approach of Arnheim, on the other. Gombrich recognises the active, constructive nature of the projective visual perception of both artist and beholder and its 'indirect' relationship to the objects of the external world – that is, the artwork is constructed via the beholder's prior experiential knowledge and expectations. In contrast, Arnheim's gestalt account, while recognising the multi-sensory, expressive nature of the artist's perception, upholds the idea of the 'direct' perception of the viewer, in which the formal elements of a work express the multi-sensory experience of the artist directly to the viewer.

The tension between Gombrich's and Arnheim's opposing models of perception can be resolved by bringing their work into a more constructive dialogue through placing it in the wider philosophical context of contemporary phenomenological and haptic film theory. Each approach is recognised as providing part of a larger explanation of the process of an embodied spectatorship, which includes the artist's perception as expressed in a film (for example) and the viewer's perception as expressed in their experience of the film. Thus, rather than representing opposing models of perception, the work of Gombrich and Arnheim are treated here as describing different aspects of a larger process of embodied, phenomenological, perceptual experience. Such a dialogue builds a model of a phenomenological and embodied spectatorship that extends Crowther's theory of the phenomenological depth of an embodied visual style in relation to the artist (as outlined in Chapter One) to encompass that of the viewer. This enables a more detailed account of the active (expressive) role of the embodied, multi-sensory perceptual experience of the viewer, on the same terms as the artist and the work, in the study of how visual materials 'come to mean'.

2.1 The 'constructive' nature of perception

Figure 2 has been removed due to Copyright restrictions.

In *Understanding Comics,* Scott McCloud (1993, pp. 88-9) presents a four-panel establishing shot of an old-fashioned kitchen scene (fig. 2). Most readers will have no trouble perceiving that they are in a kitchen through the scenes depicted in the four panels. For McCloud, however, the perception of this scene is constituted not simply by what is depicted in the images, but also by what is *not* depicted, within the panels and in between the panels – in what he describes as the "blank ribbon of paper". When perceiving the panels, McCloud suggests, the mind constructs an entire scene out of the 'fragments' in the frames in a way that requires the co-operation of all of the senses. While the comic may appear to be a 'mono-sensory' visual medium, McCloud (1993, p. 89) maintains that the perception of its subject matter always involves the other senses, as well as prior bodily experience: we know what a pot on the boil sounds like, and may hear it in the first panel; we recognise the sound of chopping in panel two; and we may recognise a smell of cooking that is familiar from our own prior experience, and maybe even the taste of the food. McCloud's example is illustrative of the primary argument of this chapter: the prior multi-sensory, bodily experience of the viewer plays a constructive role in the perception of minimal, ambiguous and seemingly visual forms.

McCloud's description of the viewer's constructive perceptual experience of the comic strip is supported by a theoretical tradition of 'constructivist perception', formulated during the early twentieth century in line with emerging field of physiological optics. Koss (2006) outlines how physiological models of visual perception began to emerge, particularly within experimental psychology, amidst a marked philosophical shift. The notion that individual perceivers have their own distinct, bodily-based, perceptual experience of the external world gradually became a central tenet of experimental psychology. German polymath Hermann von Helmholtz (182l–1894), in particular, demonstrated that visual perception is underpinned by what he termed 'unconscious inferences' or 'unconscious conclusions' that are not received solely through external stimulation.

Von Helmholtz examined the physiology of the human eye and concluded that it was, optically at least, very inefficient. The eye has a number of features that reveal its poor functioning in relation to the richly detailed world we assume that we perceive visually – there are numerous blind spots, *saccade* gaps (produced by the eye's constant movement as it changes focus) and the upside-down image projected onto the retina. Perception, for von Helmholtz, particularly visual perception, requires that an individual makes inferences drawn from their prior knowledge of the world in order to make sense of the eye's fragmentary sensory signals – a knowledge that is basically neurological, linked to the structure of the individual nervous system:

> The psychic activities that lead us to infer that there in front of us at a certain place there is a certain object of a certain character are generally not conscious activities, but unconscious ones. In their result they are equivalent to a conclusion, to the extent that the observed action on our senses enables us to form an idea as to the possible cause of action; although, as a matter of fact, it is invariably the nervous stimulations that are perceived directly, that is, the actions, but never external objects themselves. (Von Helmholtz, [1962 trs.] 1910, p. 4)

Through bringing empiricism into experimental psychology, von Helmholtz demonstrated through the study of images and music that perception is constructive in nature (Warren and Warren, 1986). Perception is a process that is always resolved by an unconscious inference, drawn from the neurological experience of the individual, and has an indirect correspondence to the objects of the external world; these objects are perceived via the physiological structure of the body that shapes the neurological structure of the individual's brain.

As constructivist thinkers in the visual arts such as Richard Gregory (1970, 1997) have argued, adopting von Helmholtz's understanding entails a recognition that the prior bodily-based, experiential knowledge that shapes the neurological structure of the brain[42] is necessary for all visual perception because the retinal images themselves are inherently ambiguous. Gregory (1970, p. 1121), in particular, recognises that many of the perceptual properties vital for human behaviour and understanding – such as knowledge of the qualities of texture and weight, heat and cold, or whether something is edible or poisonous – cannot be signalled simply by means of the eye's apprehension of direct stimuli; instead, the human being calls on their experiential 'knowledge in perception'. Human apprehension of the present world is always indirect; it is partially constructed by a historical brain (functioning within a body) that processes the external stimuli via prior experiential knowledge.

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[42] What Gregory (1997) means by 'knowledge' is analogous with creating and storing 'potential intelligence' and 'kinetic intelligence'. "[The] stored-from-the-past potential intelligence of knowledge" (Gregory, 1970, p. 1121) is selected by the brain and applied to the solution of current perceptual problems by the more active kinetic intelligence. In this sense, perception is first and foremost a problem-solving process.

However, the unconscious inferences that underpin the constructivist account of perception are more than just neurological, they also extend into other immaterial aspects of human experience such as the imagination. Dario Gamboni (2000, pp. 184-187), in particular, describes how the idea of the constructive power of visual perception arose in parallel with the scientific study of ambiguous images in psychology during this period, initiating a description of the *imaginative* projection of the viewer's perceptual experience onto the world. Through the study of twentieth-century psychological literature, Gamboni reveals how psychologists began to use popular images and comics as demonstration materials in the study of the constructive nature of human perception.

Gamboni pays particular attention to the work of American psychologist Joseph Jastrow (1901), who reproduced an image from *Harpers' Weekly* illustrating an article entitled *'The Mind's Eye'.* This image features either a duck or a rabbit, depending on whether we interpret the long shape on the left as a beak or ears, and is conceived in such a way as to produce the effect of it oscillating between the two readings. Jastrow used the image to demonstrate (psychologically) the role of imagination in normal visual perception, connecting it with other phenomena such as 'accidental' images like clouds and shadows. His description of such images is interesting, as it fuses imagination with perception:

> The whitewashed tree or post that momentarily startles us in the dark country lane takes on the guise that expectancy gives it. The mental

> predisposition here becomes the dominant factor, and the timid see as ghosts what their more sturdy companions recognize as whitewashed posts. Such experiences we ascribe to the action of suggestion and imagination – the cloud "that's almost in shape like a camel," or "like a weasel," or "like a whale". (Jastrow, 1901 cited in Gamboni, 2000, p. 186)

Gamboni describes such 'whitewashed' or ambiguous images as 'potential images': they hold a potential realisation that is 'completed' by the constructive perceptual experience of the viewer. Such images particularly reveal how the beholder relies upon the ongoing interaction between their perception and imagination: the cycle of identifying and examining hypotheses is the basis of all perception (Gamboni, 2000. p. 16). Situated in the context of Henri Bergson's (1859-1941) philosophy, as it was applied in the visual arts during the nineteenth century, Gamboni's 'potential images' demonstrate how all images, including those produced by the artist or practitioner, are fully dependent on the constructive imaginative perception of the viewer for their actual realisation. Images always remain potential, hanging partially completed, until they are synthesised in the active perceptual experience of the beholder. Potential images, as Gamboni understands them, become actual during the creative act of contemplation; they can never be pre-determined. As such, they partially elude the artist who produces them.

The imaginative, experiential underpinning of the constructivist account of perception in the study of the visual arts has been widely discussed in the work of Gombrich (1960, 1979, 1987). Gombrich provides an exhaustive account of the active and constructive role of human perception in the creation and perception of the style of many kinds of visual materials, from painting to comics and 'accidental' images. At the centre of his work lies the psychological concept of 'projection', as applied to the study of the creation and perception of images:

> […] in psychology this process is more frequently labelled ‘projection’. We say we ‘project’ the familiar form of a face into the configuration of a car, just as we project familiar images into vaguely similar shapes of clouds. It is well known that this propensity of our minds is used in modern psychiatry as a diagnostic tool. In the so-called ‘Rorschach test’, standard inkblots are offered to the subject for interpretation. (Gombrich, [1960] 1994, p. 84)

The psychological concept of projection is applied in Gombrich’s work to both artist and beholder, and in doing so it deepens (and complicates) the relationship between artist, work and viewer in two very important ways. First, the artist or practitioner’s own psychological experience and expectations transform the object depicted – what they perceive and depict is a motif that is fused with their own experience and expectations. Secondly, the beholder’s further perceptual experience of the work involves the projection of their own imaginative expectations – the beholder always has a perceptual share in the image perceived. The meaning of a visual work is not given within the work itself, it is not communicated by the artist to the viewer via the work; rather, what the work may mean remains potential and is only actualised through the constructive perceptual experience of the beholder.

Where Gombrich points to the importance of the imagination, prior experience and expectation for a constructivist account of perception, there is no body *per se* theorised directly within his work, only the vague use of the term organism drawn from the writing of Karl Popper and James Gibson ([1960] 1994, p.15). Gombrich’s constructivist approach to the study of the creation and perception of visual style does, however, cite the physiological optics of von Helmoltz from which his work borrows an in-direct model of physiological perception as underpinned by prior experience. As such, Gombrich’s work will be read as sympathetic to von Helmoltz’s unconscious inference, whilst adding an experiential dimension to von Helmoltz’s work that is not entirely describable in terms of a materialist analysis of the development of the nervous system of the individual.

2.1.1 *The experiential dimensions of images*

In *Art and Illusion: A Study in the Psychology of Pictorial Representation* (1960), Gombrich presents a comprehensive account of the psychological and experiential underpinning of the pictorial style of materials studied by mainstream art history. He proceeds with a rejection of the modern distinction between conceptual knowledge and perceptual experience in art historical discourse,[43] which pre-supposes a view of human consciousness as a *tabula rasa*, an organ that passively registers external sense impressions. For Gombrich ([1960] 1994, p. 307), there is no such thing as a direct correspondence between an external stimulus and an internal experience as there is no 'innocent eye'; the eye of the artist and of the beholder is always historical and related to the organic functioning, experience and history of the organism – and perceptual experience is no different.

What guides human perceptual experience, Gombrich ([1960] 1994, p. 24) believes, is the individual's prior experience and expectations, the temperament and personality of the artist and the beholder, which culminate in the formation of what he terms, in the language of experimental psychology, an 'experiential' perceptual hypothesis based upon a 'schemata' of the individual's lived reality. He demonstrates that this psychological schema of prior experience frames a human being's apprehension and perception of the world, always 'correcting' what is perceived in terms of that experience. This corrective aspect of perception and perceptual experience thus plays a vital role in both the creation and perception of the style of visual materials.

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[43] Gombrich's particular exception is the approaches to art history built upon the philosophy of Georg Hegel, as manifest in the description of the style of an art object as the expression of a transcendental supra-individual consciousness, or the "spirit of the time" (Meyer, 1994). Such approaches see the foundation of style as a cultural expression – a political, social and cultural aesthetic – neglecting individual experience, psychology and unconscious.

2.1.2 *The artist's 'schema' and 'correction'*

Gombrich maintains that human perceptual experience is representational, bound up in the constant activity of the organism. It begins as vague and general, but acquires greater clarity through experience, becoming progressively more articulated. He maintains that the familiarity of the psychological experience or 'schema' of the artist is always projected onto the unfamiliar (un-experienced) aspects of the external world, which, as they are encountered, are 'corrected' in perception to match what is experientially recognisable. Gombrich ([1960] 1994, pp. 64-65) describes this constructive process of perception as a model of 'schema and correction', a process that underpins the creation of certain details in, and characteristics of, the style of visual materials.

For Gombrich, the artist begins a depiction of the world not by portraying a direct visual observation of an external object or motif, but through an impression that is fused unconsciously with the artist's schema of prior experiences. The creation of a visual representation always has a starting point (or a standard of comparison) in the schematic experience of the creator, and it is through a perceptual process much like that of making, matching and remaking that this schema finally becomes embodied in the finished image (Gombrich, [1960] 1994, p. 65). The activity of depiction works much like a simile: in the process of copying the motif, the concrete object being depicted is compared in the artist's perception to a 'schematic form' of prior experiences and expectations:

> The draughtsman tries first to classify the blot and fit it into some sort of familiar scheme – he will say, for instance, that it is triangular or that it looks like a fish. Having selected such a scheme to fit the form approximately, he will proceed to adjust it, noticing for instance that the triangle is rounded at the top, or that the fish ends in a pigtail. (Gombrich, [1960] 1994, p. 64)

The experiential schema represents the power of perceptual expectation (or what is experientially familiar to the artist through prior experience) that Gombrich argues moulds and shapes how the artist understands the perceived motif. He exemplifies the process of 'schema and correction' through a reading of the psychological test of 'serial reproduction' established by psychologist F. C. Bartlett (1920, 1923), in which a series of drawings are produced from memory by a chain of individuals, beginning with the first individual's reproduction of an Egyptian owl. The next person reproduces from memory the initial depiction, and so on. The result is a series of gradual transformations from the original owl to a cat through the serial copying and reproduction from memory,[44] a memory that is fused with each individual's expectations of the subject (fig. 2a).

Figure 2a has been removed due to Copyright restrictions.

What Bartlett aimed to demonstrate was that the retrieval of images or stories from memory always involves a reconstruction of certain salient features or details that have been assimilated by the individual's experiential schema (Oatley, 1999, pp. 101-102; Butler and McManus, 1998, p. 35).[45] By focusing on the development of visual style, Gombrich's ([1960] 1994, p. 64) analysis of Bartlett's test reveals that there is a moment – around reproduction five (fig. 2a) – when an unfamiliar or ambiguous shape (an owl-cat hybrid) appears, one that does not fit any pre-existing category in the perceiving subject's schema of experience. It becomes 'distorted', re-formed and transformed, gradually assuming the more familiar shape of a cat; as the image is assimilated by the subject's experiential schema of expectation, it gradually becomes more clearly defined.

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[44] Bartlett used ten subjects in the test. Subject One saw the original image of an Egyptian owl, and was asked to reproduce it after half an hour. This reproduction was shown to Subject Two, whose further reproduction was shown to Subject Three, and so on.

[45] According to Bartlett (1920, pp. 35-37) familiarisation is a fundamental principle in the reproduction of folk stories. He maintains that what frequently occurs when events, incidents or objects become unfamiliar is a transformation that relates it to what is familiar. Noting cases in which literary objects are preserved through transformation – such as a boats with canoes, bush cats with domestic cats and

In relation to the process of depiction, and more importantly visual style, Gombrich ([1960] 1994, p. 64) reveals that in this test, where a pre-existing category (such as in the case of the ambiguous, unrecognisable form of the owl-cat hybrid) is lacking, a 'distortion', underpinned by the artist's schema of experiences, takes over and is projected onto the developing form so that it is 'corrected' by rendering a 'copy' based on that schema. Thus, for Gombrich, the familiarity of the artist's prior experiences will always remain the likely starting point for rendering the unfamiliar, un-experienced and unrecognisable stimuli encountered in the world (p. 72). Using this premise, Gombrich maintains that an existing representation, based on the artist's experiential schema, will always influence the artist, even when they strive to record the 'truth' (p. 72) – a constructive process that is unconscious and not entirely understandable in terms of socio-cultural relativity. This perceptual process results in adaptations of the details of the object depicted, which become distorted representations projected onto an external world through a psychological and experiential schema.[46]

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peanuts with acorns – this familiarisation results in a common tendency to change all presented forms into a form that can be accepted without uneasiness or question.

[46] The workings of such an approach become explicit in Gombrich's reading of Albrecht Dürer's woodcut of a rhinoceros from 1577. Dürer had never seen a rhinoceros first-hand. When creating his woodcut, he had to rely on descriptions and second-hand evidence: a sketch of the animal that had been sent to Rome as a present for Pope Leo X and a Portuguese newsletter that was sent to Nuremberg

2.1.3 *The 'beholder's share'*

How a visual representation 'comes to mean' is not entirely understandable in terms of the artist alone. Just as the artist relates to the world, Gombrich argues, the beholder too always has their own projected psychological 'share' in the image depicted, based on their individual experiential schema. Gombrich's ([1960] 1994, pp. 174-175) concept of 'the beholder's share' demonstrates that the incompleteness or ambiguity of a visual stimulus arouses the projection of their experiential schema in the beholder's perception. Demonstrating the concept at work in the perception of 'accidental' shapes such as clouds, Gombrich ([1960] 1994, p. 155) notes: "What we read into these accidental shapes depends on our capacity to recognize in them things or images we find stored in our minds". The beholder's share is posited, once again, on the psychological concept of the projection of prior expectations and experiences (or schemata) onto the world through perception.

Gombrich ([1960] 1994, p. 175) maintains this is exemplified most fully in what identifies as 'Eastern art'; he points out that Chinese art, in particular, reveals the power of its expression of an image's invisible features through the very 'absence' of brush and ink. In such images, the economy of the brushwork, which results in the absence of intimate details such as facial features or contextual details, is always just expressive enough to suggest what is absent or invisible in the depiction itself, so that the beholder can 'complete' the picture through their individual perceptual experience:

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recounting how the king of Portugal put Pliny the Elder's stories of the bitter rivalry between the elephant and rhinoceros to the test (Batrum, 2002, p. 283). Gombrich ([1960] 1994, pp. 70-71) suggests that Dürer put these together in his depiction, and filled in the 'gaps' from his own imagination, coloured by his experience of rendering exotic beasts and dragons – evident in the details of the image. From the Portuguese descriptions of the rhinoceros's triumphant fight, the creature is given skin like plated armour with hard scales covering the legs, a second horn on its back (possibly inherited from the stories of Pliny), and a powerful stance. It is this fusion of prior experience/expectation and 'information' from the descriptions of a rhinoceros that, for Gombrich, constructs the artist's schema and subsequent depiction of the animal.

> Figures, even though painted without eyes, must seem to look; without ears, must seem to listen ... There are things which ten hundred brushstrokes cannot depict but which can be captured by a few simple strokes if they are right. That is truly giving expression to the invisible. (Gombrich, [1960] 1994, pp. 174-175)

Gombrich suggests that it is precisely the restricted, minimal, ambiguous and economic style of such visual works that encourages the beholder to complete the images by projecting their imitative faculty or psychological schema of experience onto the work. The empty surface of 'shining silk' that surrounds the brush strokes is as of much a part of the image as the brush strokes themselves, since it is the empty space that provides a screen onto which the beholder's psychological and experiential share in the image can be projected. Gombrich maintains that it is the power of expectation – rather than any pure conceptual knowledge – that moulds what is perceived, and the expected projected image is structured by the beholder's own temperament, personality and preferences.

Figure 2b has been removed due to Copyright restrictions.

Gombrich finds this perceptual 'give and take' between ambiguous or restricted images and the active beholder's perceptual experience also at work in advertising matter, such billboards in the 1950s, in which the limits of what is recognisable in the presentation of images extend beyond the direct indication of natural appearances to involve the beholder's own experience. A 1953 advertising image for Capstan Cigarettes (fig. 2b), for example, presents the minimum of clues with a sufficient boldness to allow the image to turn from a more ambiguous row of cigarettes into two flirting faces (Gombrich, [1960] 1994, p. 197). In another example, a poster for the *Financial Times* (1955) (fig. 2b), Gombrich describes how its ambiguity invites the viewer to scan the picture and anchor the projection of their experience in the image of the chimney with a top hat, accepting it as depicting an industrialist:

> Where is the face? As soon as we ask, we notice we are scanning the poster, looking for indications where to anchor our projection. We find It somewhere along the line, and the faintest of phantom images settles on the chimney, but it is also a face, according to the way we look at it. (Gombrich, [1960] 1994, p. 197)

Images such as these reveal the larger constructive perceptual process in which an unusual or ambiguous visual stimulus is embedded, evoking the projection of the beholder's familiar experiential schema to share in the perception of the image and thus complete it. They demonstrate how the experience of visual materials gives a visual existence to the otherwise invisible, non-material, projected psychological perceptual experiences of the beholder. It is important to clarify the terms on which an image is understood as 'ambiguous', however, as this description can refer to many kinds of images: a simple outline of a hand, while not seemingly ambiguous, is revealed to be so on further investigation (Gombrich, [1960] 1994, p. 200). The analysis of such a drawing reveals an unexpected lack of information: it is impossible to tell, for example, whether it is a left hand seen from the front or a right hand seen from the back.

The minimal, unusual, accidental and ambiguous visual forms that Gombrich analyses reveal a more complex reciprocal relationship between the perceiver and the perceived – that is, between the artist, the work and the beholder. In the context of a constructivist model of perception, Gombrich reveals that not only do the perceptual experiences of artist and beholder comprise a co-constructive force in the way the style of a visual work 'comes to mean', but that this constructive process also underpins diverse forms of visual culture, from paintings and Chinese calligraphy through to comics, doodles and advertising matter. The hierarchy established between high art and popular visual culture by a socio-cultural framework (as outlined in Chapter One) begins to dissolve in an active constructivist model of perceptual experience.

Gombrich's psychological underpinning to the creation and perception of visual forms, however, remains within the experiential, personal and familiar. As such, it focuses attention upon what is visually experienced and does not fully account for other dimensions of embodied perceptual experience, principally that of the multi-sensory (as illustrated earlier in McCloud's study of a comic strip). The multi-sensory aspects of psychological experience have been discussed in other contemporaneous psychological accounts of the visual arts, particularly that of Arnheim (1957, 1969). Arnheim's gestalt approach to the study of art takes a strongly formalist line, which is in many ways positioned in opposition to the constructivism of Gombrich. Situated within the tradition of gestalt psychology, particularly the work of Max Wertheimer and Wolfgang Köhler, Arnheim's work differs to Gombrich's constructivism in a fundamental way: the notion of the *direct* perception of the material properties of the external world.

However, Arnheim's work helps us to more fully appreciate the multi-sensory aspects of the creation and perception of visual and audio-visual form, and will be read as complementary to Gombrich's constructivism rather than in opposition to it. Arnheim's work is spelled out more fully in the following section, which contextualises it in terms of both Gombrich's thinking and more contemporary accounts of multi-sensory experience in phenomenological film spectatorship. Arnheim reveals that what is assumed to be materially absent in an ambiguous, simple visual form (in the case of the multi-sensory experience of the artist, this is the kinaesthetic, tactile and olfactory) is always expressed *indirectly* by the work itself, but perceived *directly* by the multi-sensory perception of the spectator.

2.2 Gestalt psychology and theories of 'direct' perception

Arnheim's work was influenced by the emergence of gestalt psychology in the early twentieth century, and was underpinned by the theory of *direct* perception, which opposed the notion of *indirect* perception maintained by constructivists such as von Helmholtz and Gombrich (outlined earlier in this chapter). As Ian Gordon (1997, p.57) illustrates, gestalt psychology focused on the organisation of formal perceptual inputs (in distinction to experimental psychology's idea of introspective, psychological sensations) and was associated with 'nativism', in which the viewer's perception was understood to be innately determined by the formal patterns of a work. According to gestalt psychology, contrary to constructivist accounts, visual perception requires no prior psychological and experiential knowledge on the part of the viewer; rather, the focus is on the study of the 'native' characteristics of perception found within the form of the work itself.

Following the lead of the gestalt psychologists of the early twentieth century, Arnheim ([1969] 1977, p. 138) maintains that the perception of an ambiguous visual work does not involve the 'completion' of that work by the imagination and past experience of the viewer, but is made possible by the expression of the form itself through the "intense visual dynamics of simplified line and colour". Far from being a mechanical recording of sensory elements, an artists' perception is a creative apprehension of reality – individual artists and cultures across the world have their own characteristics – and this apprehension results in significant structural patterns of visual form (Arnheim, [1969] 1977, p. 6). The form of a work of art is itself expressive on a multi-sensory level and does not require any discussion regarding the psychological account of the viewer.[47] Visual abstraction, for Arnheim ([1969] 1977, p.137), is not 'incompleteness', as Gombrich held, nor is it 'potential' (Gamboni, 2000); it is an expression of a multi-sensory artistic statement about the visual qualities of an object. Contrary to Gombrich, he perceives a cartoon or comic at exactly the level at which it is drawn (Arnheim ([1969] 1977, pp. 136-137). Any 'forceful liveliness' in a work does not derive from the observer's contribution, but is made possible entirely by the visual dynamics of the simplified form itself; it is experienced through the form's expression of liveliness.

2.3 The multi-sensory aspects of visual form

Arnheim's gestalt theory of the visual arts focuses on the dynamics between a multi-sensory perceptual experience and formal treatments of the visual form. In particular, he aimed to demonstrate that human apprehension of the world is always shot through with bodily-based feeling, memory and experiences, and that this perception is multi-sensory and primarily expressive. In his later work, particularly *Visual Thinking* (1969), Arnheim demonstrates how visual perception can be understood as a process of cognitive activity in itself, repairing the rupture made by the commitment of contemporary psychology to tearing the processes of perception from the domain of conceptual thinking:

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[47] In *Art and Visual Perception*, Arnheim (1954, pp. 4-5) makes clear that his concern is with the gestalt psychological experience of the artist that he reads in the visual forms they create. He is not concerned with the psychology of the consumer or viewer of the works. For him, the meaning of a visual form is to be found in its simple patterns, as perceived by the viewer directly.

> [T]he cognitive operations called thinking are not the privilege of mental processes above and beyond perception but the essential ingredients of perception itself. I am referring to such operations as active exploration, selection, grasping of essentials, simplification, correction, comparison, problem solving, as well as combining, separating, putting into context. These operations are not the prerogative of any one mental function; they are the manner in which the minds of both man and animal treat cognitive material at any level. (Arnheim, [1969] 1997, p. 13)

Visual perception, for Arnheim, was not the passive reception of external stimuli, but an active, ‘performative’, multi-sensory process:

> Through that world roams the glance, directed by attention, focusing the narrow range of sharpest vision now on this, now on that spot, following the flight of a distant sea gull, scanning a tree to explore its shape. This eminently active performance is what is truly meant by visual perception. (Arnheim, [1969] 1997, p. 14)

In both *Visual Thinking* (1969) and *Art and Visual Perception* (1954), Arnheim examines the expressive nature of the shape, form, balance, colour and other formal features of a work, demonstrating that the creation and expressive capacity of simple visual forms such as lines and shapes are shot through with the bodily-based feeling of the artist who created them. Such forms are experienced not merely as curved or smooth but as calm or harmonious, not merely as jagged or sharp but as angry, rough and aggressive (Arnheim, [1969] 1997, pp. 124-125). Human visual perception and artistic practice, he says, are expressive – simple shapes and lines are manifestations of feelings, such as a sense of weight, which derive from the artist’s multi-sensory experience.

Arnheim reveals that what is assumed to be materially absent in the perception of visual forms (sound, taste, touch, feeling, emotion or other sensory experiences) is always presented indirectly to the viewer's perception through the formal visual elements of the work. Arnheim's earlier work, *Film as Art* (1957), offers a more accessible account of these multi-sensory aspects of perception at work in a visual form, which he later applies to the study of the pictorial arts. Just as with art, painting and music, Arnheim ([1957] 1997, p. 8) maintains that film should not be seen as a mechanical reproduction of an external concrete reality; it engages the perceptual and nervous system in the same way as the hand, the brush and the brushstroke of the painter does. Film is not simply an imitation or selective duplication of reality, but a translation of observed characteristics into the form of a given medium (Arnheim, [1969] 1997, p. 3).[48] Throughout *Film as Art*, Arnheim traces the formal techniques by which film can be treated on the same terms as art and compared to painting: that is, it embodies the multi-sensory experience or 'prejudice' of the artist in its production, expressing this experience to the spectator through its formal characteristics.

The embodiment of the eye (of both artist and spectator) – the structuring of the visual experience of the eye through cooperation with the rest of the body (its kinaesthetic, aural, tactile and olfactory senses) – structures the creation and expression of the form of a film work. The eye is not merely a passive mechanism, functioning in isolation; it is in constant cooperation with the rest of the body's sensory experiences, even when these are assumed to be absent in a visual work. It is this material "absence of the non-visual world of the senses" (Arnheim, [1957] 1997, p. 30) that is always present perceptually, expressed in the form of the film work. Sensations of smell, equilibrium or touch, although not materially present, are always perceptually present, suggested indirectly through the expressive dynamics of visual form.

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[48] Arnheim's work regarding film and media has been revisited by some more recent authors. Scott Higgins (2010), in particular, aims to re-assess the importance of his contributions to contemporary thinking in media and film studies.

2.3.1 *The artistic use of the absence of non-visual sense experience*

Arnheim's contention that what is not materially present in a film work (for example, sound, touch, taste and smell) is always indirectly present in its visual form is based on the central premise that the eye is in constant cooperation with the rest of bodily experience. The other senses structure the very form that the eye's perception takes and the way this is expressed. In foregrounding the multi-sensory aspects of perception, Arnheim ([1957] 1997, p. 34) is able to declare that "no one who went unprejudiced to watch a silent film missed the noises, which would have been heard if the same events had been taking place in real life". Although the sound of certain discrete details in a silent film (feet walking, a clock ticking, leaves rustling) is materially absent, it is always perceived indirectly through the presentation and formal structure of the film.[49] This material absence of non-visual sense experiences can be used in film to create surprising artistic techniques.

For Arnheim, materially absent sounds can be suggested indirectly through the form of the image itself by presenting (or paraphrasing) the acoustic qualities of a sound as a visual event: the visual event expresses the quality of the acoustic one. Demonstrating such a perceptual paraphrase at work in a scene in Josef von Sternberg's *The Docks on New York* (1929), Arnheim reveals how the absent sound of a gunshot is made visible by the sudden flight of a flock of birds (fig. 2c):[50] the spectator does not simply infer that a shot has been fired, but actually ‘sees’ something of the quality of the noise, expressed visually in the form of the film (Arnheim, [1957] 1997, p. 108). The abrupt way the birds rise up in flight is an exact visual equivalent of the acoustic qualities of the shot. It makes the ‘invisible’ (materially absent) qualities of the sound of the gunshot ‘visible’; they are expressed through an indirect visual event that the spectator experiences perceptually.

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[49] Michel Chion (1994, 1999) gives a further account of the filmic event, where sound plays more of a constitutive role in what is perceived visually. Chion demonstrates how sound and image have the ability to transform one another in the filmgoer's perception of the film. This transformation occurs not because of any 'natural harmony' between the image and sound themselves, but in the ability of the perception of both to mutually influence and shape each other. In his work, *Audio-Vision* (1999), Chion shows how the soundtrack of a film can render a visually absent form present in the audience's perception (such as the presence of a murderer in the shadows), or how an accompanying soundtrack can influence the 'feeling' of a scene. For him, sound or music, 'adds value' to the image, causing the filmgoer to perceive the image differently; a synergetic relationship between sound and image involves the viewer's active embodied perception.

Figure 2c has been removed due to Copyright restrictions.

In another example revealing the multi-sensory aspect of film’s visual form, Arnheim ([1957] 1997, p. 30) shows how kinaesthetic experience, which is materially absent in both the film and the spectator’s body, which is at rest, can be suggested indirectly through the visual form of the film. Although the body remains static, once the eye is engaged with the filmic world the result can be surprising: Arnheim observes how an feeling of giddiness can be produced by watching a film where the camera moves rapidly and violently back and forth. For example, in a scene from Dziga Vertov’s *Man With a Movie Camera* (1929) (fig. 2d), the camera spins rapidly, swaying and cutting to close-ups of a fast moving train. Arnheim ([1969] 1997, p. 30) reveals how the consequent giddiness evoked in the viewer is caused by the eye’s participation in a different world (the world of the film) to that indicated by the kinaesthetic reaction of the resting body. The film's world goes beyond the material state of the work by expressing the kinaesthetic through the form of the film itself.

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[50] Arnheim (1957, p. 107) notes how such an editing choice is not merely a tactic on the part of the director to deal with the silence of the medium (it is enough to see the revolver fire, or see a wounded man fall to perceive a murder taking place), but is an artistic paraphrase, an “indirect representation of an event that is strange to it”.

Figure 2d has been removed due to Copyright restrictions.

The material form of a film work is shaped by, and indirectly expresses, the multi-sensory experiences of the artist who creates it – experiences that the viewer perceives directly through their own perceptual experience. The form of the work is not purely 'visual', as the visual elements of the work are themselves co-constructed through the multi-sensory experience of their creator. As such, the non-visual sense experience is never really absent, it simply appears to be so due to the sole focus on the visual aspects. For Arnheim, it is through such an indirect presentation of the multi-sensory quality of an event (such as the sound of the gunshot presented indirectly by the sudden movement of startled birds) that a materially absent sound is always perceptually present, expressed to the multi-sensory experience of the spectator regardless of the context of their spectatorship. The perception of the sound of walking or shuffling feet or the ticking of a clock, the sense of giddiness caused by sudden movement, or the smell of candles burning or food cooking are expressed by the work itself. The visual form is in part shaped by these multi-sensory experiences.

Gombrich and Arnheim, therefore, although adopting apparently opposing models of perception, drawn from constructivism and gestalt psychology respectively, share a central conviction informed by the physiological models of perception developed in the early twentieth century. This conviction is that an artist's creative work is a concrete measure, or creative apprehension, of the external world (in the form of a representation) that reveals some of the world's characteristics. Whereas Arnheim's use of gestalt psychology in the analysis of film excludes the constructive role of elements of the viewer's multi-sensory perception in the co-construction of the visual form from the discussion, more contemporary 'tactile' or haptic film theory includes the expressive and constructive nature of the viewer's multi-sensory experience. The philosophical context of this literature is surveyed in the next section, which provides an account in which the multi-sensory aspects of an active embodied spectatorship play a co-constructive role in the experience of an (equally expressive) film. In this context, the work of Arnheim and Gombrich is brought into a collaborative dialogue rather than an oppositional one.

2.4 The filmic experience as expressive

What has been termed 'haptic' film theory, in particular the work of Laura Marks (2000, 2002), recognises a reciprocal relationship between a film work and the embodied multi-sensory experience and knowledge of the spectator. In *The Skin of the Film*, Marks (2000, p. 131) describes the experience of an audio-visual work, such as an intercultural film, as 'calling up' the multi-sensory and mnemonic experiences and knowledge of the embodied spectator, which lie beyond what she describes as a dominant Cartesian 'ocular-centrism'. Recognising that the body, especially the sense of touch, is capable of storing powerful multi-sensory memories that are lost in a purely visual analysis (Marks, 2000, p. 130), she examines how audio-visual media evoke the tactile memories of the filmmaker and the viewer's embodied spectatorship through what she calls, after Deleuze, the 'haptic image'. What Marks (2000, pp. 131-132) terms 'haptic visuality' is posited against an 'optical visuality', which conceives of the experience of a film as purely optical and distanced from the body. In contrast, haptic visuality is based in the tactile, bodily epistemology of both the filmmaker and the viewer and has a relationship with the world of mimesis, a multi-sensory and mnemonic experience that lies below the symbolic and cognitive (p. 139). By invoking the aesthetic concept of 'mimesis' as applied to film analysis, Marks (2000, p. 141) shifts the hierarchical relationship between subject and object, "dissolv[ing] the dichotomy between the two, such that erstwhile subjects take on the physical, material qualities of objects, while objects take on the perceptive and knowledgeable qualities of subjects".

The reciprocal mimetic relationship between the embodied spectator and the film work outlined by Marks has its roots in a wider phenomenological film theory. Vivienne Sobchack (1992) uses the phenomenology of Merleau-Ponty, as opposed to the predominant transcendental phenomenology of Husserl that she believes lies at the root of much film phenomenology, to argue that spectatorship is not only multi-sensory and mimetic but also fundamentally expressive. Whereas a Husserlian phenomenology describes the phenomena of experience as 'given' by the world and 'taken up' through the act of experiencing, Sobchack (1992, p. 32) argues that the phenomenological eye is not just embodied in the physiological structures of the functioning organism, it is also 'enworlded' – that is, it is a part of the material world just as much as the body. Following Merleau-Ponty, Sobchack understands film as an already-expressed phenomenological experience, but argues that this expression has no finality. The experience of a filmic event itself is also expressive, and this includes the expression of the audience's active embodied perception:

> What we look at projected on the screen –whether Merleau-Ponty's "the things, the waves, and the forests," or only abstract lines and

> colors – addresses us as the expressed perception of an anonymous, yet present, “other”. And, as we watch this expressive projection of an “other’s” experience, we, too, express our perceptive experience. Through the address of our own vision, we speak back to the cinematic expression before us, using a visual language that is also tactile, that takes hold of and actively grasps the perceptual expression, the seeing, the direct experience of that anonymously present, sensing and sentient “other”. (Sobchack, 1992, p. 9)

The perceptual experience of the phenomenological embodied spectator is expressive and ‘speaks back’ to the cinematic expression the spectator encounter, an expression that ‘enworlds’ them. The ‘film experience’, for Sobchack, is the co-constitutive process of the already-expressed perception of the film and the expressive perception of the viewer. The embodied viewer is active in the co-constitution of the very experience of the film – and this experience is tactile, incorporating all of the bodily senses. Both the perception of the viewer and the work itself are modified through such an expressive process.

The tactility of the film experience is taken further in the work of Jennifer Barker. In *The Tactile Eye*, Barker (2009, p. 18) extends Sobchack’s phenomenological film theory to build a ‘phenomenological film analysis’ that focuses neither solely on the formal aspects of the film, nor on the spectator’s psychical identification with it, but on the relationship between them. Barker’s phenomenological film analysis sees film and viewer as acting together, ‘co-relationally’, along an axis that constitutes the object of study. She notes that, for Merleau-Ponty, both subject and object co-constitute a perceptual experience in which the objects of perception actively respond. Merleau-Ponty’s work points to the importance of the material, lived world in understanding more fully the perceptual structures of experience (Barker, 2009, p. 17). Barker cites Merleau-Ponty as saying that perception takes place, “not in something I do, or something that happens to me

[…] perception takes place in the world of phenomena" (p. 18); phenomenological bodies are immersed in perception, just as they are immersed in the materiality of the world. According to Barker, a phenomenological analysis of film recognises the co-constitutive, reciprocal relationship between the embodied perception of the perceiver, immersed in the responsive material (lived) world, and the perceived world which 'touches' the perceiver back. Both participants, the perceiver's body and the perceived work (as an expression of the artist's body), play a co-constitutive, mutual role in the 'reversibility' of perception.

2.5 The perceptual relationship between perceiver and perceived

Through the course of this chapter the focus has moved from the constructive aspects of a physiological perceptual experience of visual forms by the beholder to that of the multi-sensory, expressive ability of the visual form itself (gestalt theory), and has arrived at the recognition that both accounts of perception are a part of a larger dialogue within the process of what Sobchack (1992) calls a phenomenological 'enworlded' perception. Such a dialogue suggests that although the gestalt psychology of Arnheim may set itself against the constructivism of Gombrich, they in fact both play an important role within a larger process of a phenomenological 'enworlded' perception. The expressive qualities of Arnheim's formalism present the already-expressed perception of the artist to the expressive (projective) perception of Gombrich's beholder. The focus of attention is thus shifted to the study of the ongoing, expressive, perceptual experience of the visual work in which the meaning (the 'film experience', in Sobchack's words) emerges out of the co-constitutive process of the expressive visual work and the multi-sensory experiential perception of the embodied viewer.

In this context, how a visual or audio-visual work ‘comes to mean’ always relates to the play of expressive multi-sensory and experiential phenomenological perceptual experiences. As such, meaning remains, as Gamboni (2000) says, ‘potential’. How particular ambiguous, delimited, estranged and unusual visual and audio-visual forms (defined in this chapter by reference to the work of both Arnheim and Gombrich) ‘come to mean’ can now be more fully understood in terms of *the artist’s multi-sensory perceptual experience – or way of acting in the world – that is expressed in the work and continually modified, actualised and co-constituted by the expression of the perceptual experience of the viewer*.

The example of how a comic strip (such as the one cited at the beginning of the chapter) ‘comes to mean’ can now be more fully understood in an existential phenomenological framework: *the simplified line of the image is expressive of the multi-sensory, experiential, embodied perceptual experience of the artist, who is expressing this experience to the expressive multi-sensory embodied perception of the viewer who experiences the work*. The meaning of the work (its actualisation) always remains potential, as the viewer’s perceptual experience of this expression (the image) is also expressive of their own multi-sensory embodied perception. The lines of a comic strip do not embody any particular perceptual experience *per se*, as was suggested through the work of Crowther and Johnson’s in Chapter One, but rather embodies an ongoing expressive relationship between the already-expressed perception of the artist and the expressive perception of the multitude of viewers who experience it. The work always ‘comes to mean’ in the expressive perceptual context of the viewer(s), and comprises a complex interplay between that which is expressed and that which is always being expressed.

To return briefly to the filmic materials drawn from avant-garde film, such as Straub and Hulliet's *Moses and Aaron* (1975), and television advertising film, such as Hamlet Cigars' *Music Teacher* (1968) studied in Chapter One (fig. 2e), this expressive relationship between perceiver and perceived is demonstrated through the analysis of particular stylistic traits that present the human figure in a strange and ambiguous way. In both works, the reduction of what is recognisable, the economy of depiction, is evident in the use of formal techniques such as minimal, sparse presentation, the 'indifferent' or anonymous presentation of characters, and the minimal use of sound (rather than image) to drive the form of the work. These formal stylistic traits can now be understood in terms of the simplification of line and form described in the work of Gombrich and Arnheim[51] as an expression of a multi-sensory, perceptual experience, which – in Crowther's (2013) terminology – possess a 'phenomenological depth', which is rooted in a way of acting upon the world. Such ambiguous and simplified traits remain 'potential' (Gamboni, 2000) until they are actualised through the expressive perceptual experience of the beholder. Extending this insight to the phenomenological film theory of Sobchack and Marks, the way these works 'come to mean' can be understood in terms of their embodiment of an ongoing relationship between the expression of the artist's multi-sensory embodied experience (manifest as the work itself) and the beholder's embodied perceptual experience of that expression.

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[51] In his brief essay, 'A Forecast of Television', Arnheim ([1957] 1997, pp. 188-198) presents a scheme in which the 'new' medium of television can be mastered in a way he believes will enrich rather than silence the faculties of the human mind. Arnheim recognises that the cultural attitudes of the time (1930s) favoured direct accounts of perception, which praised and promoted the educational virtues of direct experience through the presentation of an 'accurate' and 'complete' world in the belief that photographs and films possessed the ability to mechanically represent reality 'as it is' (p. 195). Arnheim contends that this belief is dangerous, on account of the fact that perceiving 'accurately' (directly) should not be confused with knowing, and such direct experience 'silences' the perceptual and intellectual experience of the viewer; the mind shrinks. It is the recourse to the senses, Arnheim maintains, that allows this 'silencing' to cease. In the culture of direct experience, which teaches very little, the world does not show its true nature. The contribution of the senses, Arnheim declares, cannot be overestimated.

Figure 2e has been removed due to Copyright restrictions.

2.6 Conclusion

The phenomenological depth of visual style described by Crowther (2012, 2013), which Chapter One outlined and brought into focus, has been extended through the literature drawn from phenomenological film theory in Chapter Two to include both the phenomenological depth of the artist and that of the viewer in equal measure. Extending Crowther's work in this way provides a re-assessment of his re-working of the notion of visual style as embodying an artist's way of acting in the world to include the phenomenological expressive perception of the viewer's way of acting in the world. In this sense, Crowther's phenomenological depth of visual style can now be understood as embodying not the individual perceptual experience of either the artist or the viewer, but as embodying an ongoing expressive relationship between the perceiver and the perceived, between the embodied perceptual experience already expressed as the visual form and the expressive perception of that form by many different viewers. Crucially, this phenomenological depth is not exclusive to works of art but underpins all visual materials, as illustrated by the diverse collection of materials surveyed in this chapter.

The phenomenological recovery of visual form and style constructed by the last two chapters offers an alternative approach to the study of the phenomenological depth of printed materials, popular filmic materials and 'accidental' images, one that incorporates the phenomenological perceptual experience of the artist, the perceiver and the material form of the work itself. Such an approach begins by asking not what an image means, in terms of its socio-cultural, material framework or its material form, but rather aims to describe how it ‘comes to mean’ in the embodied and phenomenological dimensions of human experience. In questioning how such images of visual culture ‘come to mean’, the findings of this chapter (applied to the development of different materials of visual culture) requires two theoretical shifts: first, an analysis of the materials of visual culture, together with the multi-sensory, experiential dimensions of the phenomenological, embodied, perceptual experience of both artist and viewer; and secondly a study of the diverse materials of visual culture on equal rather than hierarchical terms.

To facilitate such an approach, Chapter Three undertakes a reading of the critical literature that surrounds the art historian Aby Warburg’s (1866-1929) notion of the ‘image’ within the context of film (Michaud, 2007), architecture (Papapetros, 2012) and art history (Rampley, 2001). Through this literature it becomes apparent that Warburg aimed to study not *what* an image means, but *how* it ‘comes to mean’, studied as expressed through the details of the human figure depicted, as embodied in the gestures and movements of the body that created it. Crucially, what is understood as an ‘image’ within the context of Warburg’s writing will be discussed in Chapter Three not purely on visual terms, but rather as a manifestation of movement and gesture, it is both conscious and unconscious (Agamben, 1999), underpinned by the beliefs, practices, imaginaries and ideas of a particular period (Rampley, 1997) in which the practitioner works. The term ‘image’ will thus be read as applying to *all* visual (or textual) materials, whether artistic, economic, scientific or spiritual — blurring the hierarchy between artistic and popular visual materials.

Chapter Three

The 'Image' as a Measure of the Body

The recognition of the phenomenological depth of the style of ambiguous or unusual artistic and popular visual forms, explored and developed over the last two chapters, reveals that a complex interplay between the expressive, embodied experiences of both artist and viewer is at work in the way such visual materials 'come to mean'. Chapter Three takes this understanding further by focusing on a method of analysis that can place a phenomenological depth at the centre of the study of *all* kinds of visual materials. In this context, the critical literature that surrounds the art historian Aby Warburg's (1866-1929) concept of the 'image' within the domains of film (Michaud, 2007), architecture (Papapetros, 2012) and art history (Rampley, 2001) provides a particularly useful guide; foregrounding the study of 'images' within the movements and gestures of the body, underpinned by imaginary and psychological energies.

The critical literature that accounts for Warburg's notion of 'image' describes how it is not the study of an 'artwork' as part of a socio-political aesthetic that was important, but rather the embodied 'energies', such as psychology, beliefs and imaginaries, underpinning the movements and gestures of the artist, that are left as a trace within the details of the figure depicted within the work. There are two key tenets to the notion of the 'image' that will be pertinent to the discussion of this chapter regarding the study of visual materials: first, the creation of all visual materials (whether of art, science or popular culture) is underpinned by embodied energies, such as imaginaries, beliefs and experiences, that 'animate' the human figure depicted in the work; and secondly, the work should be studied not in terms of *what* it means, but *how* it 'comes to mean' as embodied in the gestures and movements of the practitioner's body.

The literature that describes Warburg's notion of the 'image', in particular the study of the 'animation' of the details of the human figure as portrayed in a range of diverse images from across visual culture, adds a further dimension to the theory of the phenomenological depth of visual style constructed over the last two chapters; *the study of the details of figures such as weight, posture or windswept hair as a way of studying the psychologically rooted imaginary of the artist's bodily movement that is fixed, or expressed, in the image.* Warburg undertook such an analysis through the analysis of diverse visual materials juxtaposed together, as embodied within his final work the *Mnemosyne Atlas,* which provides this chapter with a methodological approach to apply to other visual materials.

3.1 Mimesis and empathy as determinants of visual style

Many writers concerned with the history of art[52] regard the late nineteenth century as the period when the study of aesthetics exhibited an increased interest in the psychological, mimetic[53] and emotional experiences of individual perception; these attributes were increasingly recognised as active and productive agents in both the perception of the world and the creation of artistic visual forms.[54] As Chapter One outlined briefly, this shift emerged amid a wider philosophical concern with ‘constructivist’ physiological notions of perception[55] (as exemplified by Hermann von Helmholtz’s work in experimental psychology) which understood human perception as ‘indirect’ – that is, not directly connected to external stimuli but functioning via the physiological processes of the body. As Matthew Rampley (2001a, 2001b), in particular, highlights in the context of the art history of this period, the concepts of mimesis and empathy in the study of aesthetics and the arts took on a much wider role than the classical idea of art as rooted in the faculty of imagination,[56] re-situating it directly in a bodily-based, physiological model of human perception. This shift had implications for the study of the formal aspects of art; the visual form was understood as the coalescence of bodily-based perception, including psychological, emotional and imaginary experiences. The work of Robert Vischer, the theorist of empathy, was key to this philosophical shift, and his essay, *The Optical Sense of Form: A Contribution to Aesthetics* (1874), became a central text.

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[52] Dario Gamboni (2002) presents a re-imaging of the visual arts during 1880-1940 which foregrounds the psychological and experiential dimensions of human experience seen in a proliferation of what he terms 'potential images' from this period. Matthew Rampley (1997, 2002), meanwhile, highlights the importance of mimesis and empathy to psychological theories of art, particularly in the work of Aby Warburg. Edgar Wind (1985) also presents a case for re-assessing Warburg's thought in the canon of art history, specifically referring to the marginalisation of his work through the legacy of Gombrich's influential studies of the psychology of pictorial style.

[53] The concept of mimesis is considered to be the oldest theory of the Western representational arts, which survived well into the twentieth century (Potolsky, 2006; Sorbom, 2002). Established during the Classical period in Greece as a means of characterising the epistemological nature of painting, sculpture, poetry, music, dance and theatre as 'art' (Sorbet, 2002), in complete contrast to other forms of human inquiry such as history and science, which were seen as a form of universal truth and reason (Potolsky, 2006). In particular, Aristotelian 'mimesis', as *simulation*, draws a dichotomy between *perception* (the sense data of the real world) and *imagination* (the simulation or representation of the sense data of the real world).

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[54] The nature of the shift in the categorisation of mimesis during this period is more fully outlined in this author’s paper, ‘A Monstrous Rhinoceros (as from life): The Epistemological Role of the Enacted Pictorial Image’ (see Appendix 4).

[55] Jonathan Crary (1990) surveys the wider philosophical landscape of the late nineteenth century, particularly the work of Goethe and Schopenhauer, who focused on the physiological basis of senses. For Crary, during the nineteenth century, the corporeal subjectivity of the observer became the basis of visual perception – an active producer of visual experiences. Crary argues that vision was no longer seen as completely based on an external object, and the primary process of ‘seeing’ was translated into the processes of an embodied perception, in which the boundaries between the subject and the object blur. Crary argues that the study of visual culture should focus on this type of embodied observer, instead of emphasising the role of pre-existing representations.

[56] The understanding of the nature of mimesis during the Classical period rested on the thought of Plato and Aristotle. This defined an artwork as a ‘copy’, ‘imitation’ or ‘similarity’ of a pre-defined external ‘real’ world, enabling the distinction between the *real* (the concrete object) and the *mimemata* (the painting, sculpture, prose work or music), the result of a process of mimesis. Both Plato and Aristotle remain faithful to this dichotomy; however, they had differing views on the epistemological nature of the imitation itself (Sorbom, 2002; Potolsky, 2006).

3.1.1 *Nineteenth-century empathy theory*

Vischer's work is situated in the prolonged late-nineteenth century debate between formalist and idealist philosophies in the study of aesthetics. As Charles Harrison explains (1998, p. 690), Vischer's thinking sits between two opposing identifications of content: a formalist conception where the objectively given content is directly presented to the viewer by the object of contemplation in its own right; and an idealist conception foregrounding the subjectively projected content, where the viewer's psychological life is brought into contact with any and every phenomenon capable of being grasped aesthetically. In attempting to find a middle ground in this debate, Vischer ([1874] 1998, p. 690) employed the psychological concept of 'empathy' (*Einfühlung*) that in his opinion exists in both the aesthetic perception of the viewer and the artistic formal presentation of the work itself.

Vischer's contribution to aesthetics in this period was the introduction of empathy theory, which signifies a process of emotional and psychological projection. His use of the term '*Einfühlung*', as Koss (2006, p. 139) illustrates, specifically refers to the aesthetic activity of perceptually 'feeling into'. He used the term (which emerged from the overlap between the fields of philosophical aesthetics, optics, perceptual psychology, and art and architectural history) as a description of the embodied response of the viewer to an image, object or spatial environment; it is a perceptual sensation that is physical, psychological and emotional. Vischer's theoretical statement concerning his use of *Einfühlung* in *The Optical Sense of Form* describes the viewer's perceptual engagement with the form of a work of art:

> I entrust my individual life to the lifeless form, just as I … do with another living person. Only ostensibly do I remain the same although the object remains the other. I seem merely to adapt and attach myself to it as one hand clasps another, and yet I am mysteriously transplanted

> and magically transformed into this other. (Vischer, cited in Koss, 2006, p. 139)

The model of perception that underpins Vischer's use of *Einfühlung* is multi-sensory, physical and emotional, including an understanding of vision as simultaneously optical and bodily[57] (Koss, 2006, p. 141). As Koss recognises, the viewer's aesthetic experience of an artwork is, for Vischer, a reciprocal one of change and transformation created by both viewer and object, simultaneously destabilising the identity of the viewer and animating the object perceived. The site of the aesthetic 'content' of an image cannot be wholly understood in either formal or idealistic (aesthetic) terms; rather, it comprises an intermingling or coalescence of both. According to Vischer, artistic form is a measure of the external world through an artistic sensibility; the objects depicted in a painting are understood as the subjective bodily experience of the artist fused with, and mediated through, the depicted object (Papapetros, 2012, pp. 45-46). The viewer of an artistic form is able to 'empathise' with the simplest of forms presented to them via bodily perception, and to give themselves over to, or be transformed by, the artwork's formal aspects.

Vischer described how, for both artist and viewer, the empathetic perception of forms (such as boulders or the moon)[58] are capable of arousing and directing changes in mood and feeling. Vischer ([1874] 1998, p. 691) outlines this more discursively in a later essay, *The Aesthetic Act of Pure Form*, where he says: “It is quite possible in the sphere of imagination for purely formal Phenomena to coalesce with other essential features of our humanity. This is the work or achievement of our representational or imaginative faculty”. Vischer’s use of the term ‘faculty’ was crucial for his employment of the concept of ‘empathy’. He described the coalescence of formal phenomena with empathetic bodily experience as functioning through the three highest faculties of the mind, in which the viewer has, firstly, a direct, formal, unilateral relation to the object (for example, light waves emanating from the moon are perpetuated in the eye and impact upon the central nervous system); secondly, a motor (physiological) relation to the object, following its contours with the movement of the eye; and, finally, an emotional relation, whereby the viewer, as a sensible and intellectual subject, is ‘transported’ into the inner being of the object (Vischer, ([1874] 1998, pp. 691-2). It is this third function of ‘transportation’ that contains Vischer’s concept of ‘aesthetic empathy’, which comprises the reflexive, emotional and intellectual function of the mind – over and above the unilateral and motor functions of the body – in which the most meaningful content of the perceived object is aroused by a reflexive, intellectual sense of identification.

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[57] Vischer's situating of perception within the body is maintained in the binocular model of perception. As Koss (2006, p. 141) recognises, it was this understanding of vision that allowed Vischer to situate the body in relation to the image. A monocular vision perceives an image without reference to scale, while binocular vision uses bodily-based perception to create a double image that is unified in the viewer's body (*ibid.*). Thus the viewer, for Vischer, was able to 'empathise' into an image via an embodied perception.

[58] Giving the example of an artistic presentation of the moon, Vischer ([1874] 1998, p. 692) describes how the formal phenomena coalesce with the psychological life of the individual artist in a perception that can be empathetically 'felt' by the viewer: "The moon, for example, can effect me in a sentimental manner through the association of ideas, because it reminds me of certain loved ones who used to serenade it or languish before it, or because it is the heavenly body which represents a dreamy and passive aspect of our life. If the colour green strikes us as a symbol of hope, this is also through the association of ideas: it reminds us of the green flowering meadows in springtime, or the verdant blessings of the returning sun, and thus by a natural progression of all kinds of things hoped for or desired."

The conflation of the higher cognitive functioning with the physiological in empathy theory rests upon a distinction, central to Vischer’s work, between ‘seeing’ and ‘looking’ (Rampley, 1997, p. 45). As Rampley highlights, the distinction rests on the opposition of passive ‘seeing’, a physiological process of stimulus reception, to active ‘looking’, analysing forms dialectically to bring them into a relationship with the body. In this sense, Vischer’s empathy is a reflexive and cognitive sensibility, sitting in-between the body and the perceived phenomenon, being a measure of the two. Vischer believed the world can only become meaningful through a process of reflection and analysis, a process that functions as a mimetic impulse, in which “the criterion of sensation lies … in the concept of similarity … not so much a harmony within the object as a harmony between the object and the subject” (Vischer, cited in Rampley, 1997, p. 45). Although Vischer included the physiological basis of perception, the body itself, in his theoretical scheme, he did not fully recognise it in its entirety in his empathy theory; rather, he contended that the ‘mimetic similarity’ between the perceived object and the body of the perceiver is achieved through the viewer’s subjective and imaginative capacity to symbolise.

3.1.2 *The body as the centre of mimesis*

Framed as a contribution to the notion of aesthetic empathy, extending Vischer’s conceptualisation of the concept, Warburg’s doctoral dissertation, *Sandro Botticelli’s Birth of Venus and Spring: An Examination of Concepts of Antiquity in the Italian Early Renaissance* (1893), offered a method by which to study the materials of the dominant formalist art history of the late nineteenth and early twentieth centuries in the context of the emerging discourses of the psychology of perception and aesthetics. Warburg applied Vischer’s aesthetic theory of empathy, in particular, to the study of drapery in pictorial depictions. His use of the notion of empathy, however, places it not, as Vischer did, in the imaginative, intellectual and reflexive functioning of the mind as functioning above the physiology of the body, but in the gestures and movements of the body itself. Warburg analysed the details depicted in diverse visual ephemera in terms of the psychological, emotional and embodied experiences (or energies) of the artist’s movements and gestures that coalesced with, and gave additional form to, the objects and figures in the painting.

As Gombrich (1970, p. 222) re-iterates in his *Aby Warburg: An Intellectual Autobiography*, Warburg primarily asked how human and pictorial expressions originate – that is, what are the (conscious or unconscious) feelings or points of view, stored in the memory's archives, that are used when applying the concepts of empathy and mimesis to unconsciously animate the gestures and movements of the body itself? In doing so, Warburg was able to foreground the projective psychological, experiential and expressive dimensions of the practitioner – what Edgar Wind (1985, p. 25) describes as the 'lifeblood'[59] of an image – in the creation of all visual forms. Crucially, he was able to trace these expressive, bodily-based experiences permeating all cultural artefacts, from textual artefacts and religious iconography to figurative art and everyday ephemera such as postage stamps, by studying the details of their representations of the human figure.

3.2 The 'image' as a measure of the movements of the body

Warburg's work aimed to explore the corresponding ideas that appear across both art and literature which he believed shape the depictions and descriptions of human figures and symbols, such as that of the 'nymph' ('*nympha*') – an analogy that he traced back to an underlying psychological empathy shared by the creators of both visual and literary 'images'. It was through studying the embodied, psychological dispositions that underpin the gestures and movements of the artist's body and result in the details of the depicted forms, such as their garments or hair, rather than concentrating on the form of the artwork itself, in isolation, that Warburg revealed the psychologically projected empathy that he claimed is a determinant of visual style.

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[59] As Warburg himself declares, "any attempt to detach the image from its relation to religion and poetry, to cult and drama, is like cutting off its lifeblood" (cited in Wind, 1983, p. 25). His 'pathos formula' can be understood as distributed among many aspects of a culture, from practices, philosophies, beliefs and religions to artistic practices, and across many dimensions of reality, such as belief, material practices and art.

Crucially, in contrast to the dominant formalist approaches to the study of art history at this time, Warburg included the domain of bodily-based human experience – psychology, empathy and emotion – in his study of visual style, tracing it across many diverse aspects of culture, including literature, painting and everyday visual ephemera.

Warburg saw the predominantly formalist approach to the history of art during the nineteenth century as overly limiting in its excessively materialistic approach.[60] As Giorgio Agamben recounts (1999, p. 91), Warburg sought to avoid the conventional conception of an artwork as a socio-cultural creation on the grounds that this approach failed to grasp the unconscious and psychological necessity of what he described as an 'image' – that is, as a product poised between religion and art. Warburg believed that the traditional notion of an artwork resulted from constructing art history on a schema derived from political history and the doctrine of the 'genius', thus producing a socio-historical and cultural history that neglected the psychological. In contrast, he wished to avoid this excessively materialistic approach to the study of the image by extending the methodological and theoretical boundaries of art history to include the psychological and expressive through the evocation of mimesis and empathy. For Warburg, the significance of the 'image' as opposed to the 'artwork', as Agamben shows (1999), was the notion that the image is neither strictly conscious nor unconscious,[61] but a crystallisation of the projected psychological and emotional energies or 'psychic forces' of the artist.

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[60] Particularly as maintained in the work of Alois Riegl and Wolfflin (Krauss and Bois, 1997)

[61] Rosalind Krauss's later project with Yve-Alain Bois (Krauss, 1997), proceeds from George Bataille's belief that the homogeneity of modern (conscious) scientific thought neglects the heterogeneity (the unconscious) of culture, a heterogeneity that Bataille points to in the 'waste' of a culture: the bile, the spit and the faeces. Following suit, David Martin (2012) rethinks the modern period through an analysis of its artefacts, foregrounding this heterogeneity, which, after Bataille, he refers to as the sacred (or the unconscious) that underpins all modern visual culture.

Warburg's thinking was heavily influenced by the contemporary animal psychology of Charles Darwin and anthropological approach of Tito Vignoli.[62] Drawing from these works, his account of the pictorial and literary image was of a work that, at some level, always expresses the traumatic relationship between the human being and the chaotic external world, presenting a situation in which the individual is able to bear the existence of the world's chaotic power without suffering harm (Efal, 2000, p. 221). Adi Efal (2000) provides a summary of Warburg's reading of contemporary art historical literature, particularly as it relates to the psychoanalytical discourses that were emerging during his time.[63] What Warburg termed the 'image' is conventionally understood as a symbolic mode that expresses the encounter between man and the chaotic world through its mimicry of the world's threatening forces. Efal (2000, pp. 221-222) recognises that Warburg, however, believed the fixed image was a memory image, carrying within itself traces of the traumatic encounter with external forces – what Rampley (2001b, p. 319) describes as an archive of the mental state of the producer, of the cognitive and emotional states that imprint themselves in a visual symbol.

3.2.1 *'Psychic' energies that crystallise as an image*

As Gombrich (1970, p. 2017-218) describes, Warburg begins his study of the psychological history of visual style with the notion, borrowed from the writing of Vignoli,[64] that the perception of any stimulus, be it visual or auditory, from the outside world always involves the projection of a psychologically known and previously experienced ‘mental image’ as the cause (or agent) of the stimulus. Warburg declared:

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[62] Rampley, 1997; Efal, 2000; Papapetros, 2012; Agamben, 1999.

[63] This re-reading of Warburg's work was instigated primarily by the writing of Matthew Rampley (1997), who, by foregrounding the importance of mimesis and empathy in Warburg's thought, draws parallels with the contemporaneous psychoanalytical discourse of the period.

[64] Vignoli's *Myth and Science* (1885) has been cited as a great influence on Warburg's thinking regarding the study of visual imagery.

> For any stimulus, be it visual or auditory, a biomorphic cause of a definite and intelligible nature is projected which enables the mind to take defensive measures ... when a door creaks in the wind ... such stimuli arouse anxieties among savages or children who may project into such sounds the image of a snarling dog. (Warburg cited in Gombrich, 1970, p. 217)

The embodiment of the psychological projection of causes for unknown or newly experienced events, Warburg declared, is the origin of the creation not only of the mental images of the subjective mind, but also of the pictorial images themselves. As Edgar Wind (1983, pp. 30-32) shows, Warburg situated empathy and mimesis in the expressive gestures of the experiencing body itself, affording the notion that the human muscles themselves serve the purpose of the mimetic expression of a psychological or embodied experience, which is always associated with the minimum of intellectual reflection. Man-made objects and pictorial images are thus seen as mimetic in origin, as always expressing in their form a relationship that is similar to that of the stimulus of a creaking door evoking the projection of a snarling dog in the mind of a child.

According to Rampley (1997), Warburg based his theory that psychological, embodied ‘energies’ underpin the formation of pictorial styles over historical time on his belief in the embodiment of mimesis and empathy in the gestures and movements of the body. The style of an image represents traces of the shape of the expressive gestures and movements made by the artist’s body. For Warburg, the details of figures depicted in a visual image (such as weight, posture, gestures or windswept hair or garments) are manifestations of the mimetic expressive gestures of the body that formed them; they are charged with a psychological and experiential ‘social memory’ or imagination. Warburg used his neologism, the ‘pathos formula’, to describe the psychological, emotional and experiential ‘forces’ and ‘energies’ that comprise the shared imaginary of the period of which the image-maker is a part. Such an imaginary is made up of the philosophies, beliefs and practices of a specific time, and these are the very ‘lifeblood’ of an image, what Colleen Becker (2013, p. 10) describes as a collective psychological distress.

The image, for Warburg, as Agamben (1999) illustrates, was “an indissoluble intertwining of an emotional charge and an iconographic formula in which it is impossible to distinguish between form and content” (p. 90), a crystallisation of historically contingent psychic energies and forces, that constitute a specific ‘pathos formula’. The study of the image itself was achieved by tracing the psychic energies crystallised in the image by the gestures and movements of the creator’s body. Agamben (1999, p. 99) maintains that the symbol (or depicted figure) in itself held little interest for Warburg; it was only interesting insofar as it made possible (made visible) the reconstruction of an individual personality or vision of the world through studying the psychic traces found within it.

In studying these embodied traces, Warburg extended Vischer’s empathy theory into the exploration of the psychological energies crystallised in the animation of pictorial details, such as the depiction of fabrics, drapery and postures. What Warburg termed an ‘animated accessory’ (Rampley, 1997) is a detail of a figure that is psychologically animated by the movements and gestures of the artist who created it, underpinned by the ‘pathos formula’ of a cultural period that can be read in the style in which it is depicted. Warburg saw the subtle changes in the way hair or fabrics fluttering in the wind are depicted, or in the weight and posture of figures, as indicative of a history of dynamic human perceptual and cognitive experience, embedded in the specific ‘pathos formula’ underpinning their creation. It was by studying the concrete object itself (the image), conditioned by the nature of the techniques, philosophies and beliefs that constituted it, that Warburg aimed to study the nature of the pictorial image as a projection or crystallisation of an embodied experience.

3.2.2 *A history of the image is a history of transformations*

Based on the theory of the embodiment of human perception, empathy and mimesis in the creation of the image, particularly in the gestures and movements of the body, Warburg was able to maintain that the course of the history of images (including the history of art) should be understood in terms of the history of pre-existing expressive values (an image of an external stimuli such as a creaking door) that undergo a polarisation or transformation (the projection of the creaking door into the image of a snarling dog) corresponding to the psychological and experiential expressive powers that refashion them (Gombrich, 1970. p. 26). These embodied expressive powers are themselves embedded in a wider ‘pathos formula’ – that is, in the beliefs, technologies, philosophies and practices of a given period. As such, for Warburg, a specific presentation of the world in an image is always a ‘renewal’ or transformation of previous existing traits that are ‘aesthetically sterilised’ [65] or stripped of expressive meaning and value, primarily through verbal descriptions and translations,[66] and polarised, given new aesthetic value, through the psychological and experiential aspects of a dynamic, bodily-based, perceptual experience and 'pathos formula'.[67]

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[65] This is a stage in the endurance or re-formation of past forms. Gombrich (1970) reveals that what Warburg termed ‘aesthetic sterilisation’ describes stripping any belief and prior aesthetic from an ‘image’ (mental or pictorial) to allow another aesthetic based on new beliefs to be created in the imagination. Gombrich (1970, p. 198) notes how this can be best summarised in the description of the process of the ‘*ars memoria*’ (art of memory) when creating new imaginative images from verbal descriptions: “No religion, so long as it is believed, can have that kind of beauty which we find in the Gods of Titian, of Botticelli, or of our own romantic poets. To this day you cannot make poetry of that sort out of the Christian Heaven and Hell. The Gods must be, as it were, disinfected of belief; the last taint of the sacrifice, and of urgent practical interest, the selfish prayer, must be washed away from them, before that other divinity can come to light in the imagination.” (C.S Lewis cited in Gombrich, 1970, p. 198)

As Rampley describes (2001a, p. 306), Warburg perceived visual culture as a dynamic process, rather than a fixed network of connections and progressive categories as the formalist accounts of the time maintained. It was this aspect of his approach to the study of the materials of art history, Rampley shows, that allowed Warburg to discover the psychological embodied energies that underpin human representation itself as revealed through his study of the 'interval' – that is, of the differences and changes observable between the artefacts of two different cultures. He conceived of the 'spirit of the age' not as a discrete break from any previous period, but as "a conscious or unconscious principle of selection informing the artistic inheritance preserved in the memory" (Warburg, cited in Rampley, 2001b, p. 306). As such, his work was concerned with tracing the preservation of a specific cultural symbol, such as the 'nymph', through its transformation as it was adopted by successive cultures, exploring the embodied and psychological conditions of this transformation through the study of the 'interval' (or difference) in its depiction.

3.3 An iconology of the 'interval'

Studying the 'interval' rather than the symbols or images themselves allowed Warburg to access the psychological and emotional underpinnings of their creation through identifying the changes in details, such as weight, posture or fluttering garments. What Warburg termed an 'iconology of the interval', according to Rampley, (2001b) focused attention on the tensions and differences between diverse visual ephemera, rather than between the material forms of the artwork itself,[68] studying not the meaning of the symbols, but the interrelationships and embodied energies that underlie how an image 'comes to mean'. Warburg's approach is useful for this thesis in that it deepens the phenomenological reconceptualisation of visual style observed in the last two chapters by including, alongside such tendencies as how the artist handles the paint, an analysis of the details of the human figures represented in images.

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[66] Warburg was able to trace a clear cycle of development in the image of the Greek hero Perseus, from its Greek origin to the distortion or 'perversion' of its form in the Oriental and Mediaeval traditions (fig. 2) to its restitution in the Renaissance (Gombrich, 1970, p. 194). Warburg suggested that at each stage of re-form in these oral cultures, the form of Perseus was 'sterilised', stripped of expressive meaning, through verbal descriptions and translations (becoming a 'stimulus' much like the sound of a creaking door) and 'polarised' or given new expressive meaning (the projection of a new mental image much like the snarling dog) through new cultural imaginations, which ultimately structure and form the new visual aesthetic.

[67] What Warburg termed the 'lifeblood' of an image comprise the wider philosophies and beliefs of the culture that produced the image.

Warburg's iconographic approach to the study of the details of visual style was focused on mapping the historical, embodied dynamics that informed the transformation of a specific motif or symbol across cultures and over historical time (Rampley, 2001b, p. 306). This was achieved through the study not of the isolated individual images themselves, but through the 'interval', or changes, between the motifs depicted in the images. Gombrich and Rampley both view Warburg's essay on the work of Édouard Manet as a particular exemplar of this method: it traces the depiction of the nymph as it is re-formed and polarised in the 'pathos formula' of the modern period.

Warburg linked Manet's *The Luncheon on the Grass* (c1863) to Marcantonio Raimondi's engraving of the *Judgment of Paris* (c1510-1520) (fig. 3) by studying the transformation of the depiction of a specific motif of a group of river gods and a nymph, claiming that the significance of the transformation lay in its appearance as a microcosm of the more general impact of modernity. It was through the study of the 'interval' between the 'primitive' phobias expressed in Raimondi's *The Judgment of Paris*, fixed in the details of the figures, and the depiction of urban leisure in Manet's painting that Warburg was able to suggest that the transformation in the representation of the human figures was underpinned by the historically contingent embodied experience (the gestures and movements) of the artists who depicted them (Rampley, 2001b, p. 312-313). Gombrich's *Aby Warburg: An Intellectual Biography* (1970, pp. 276-267) provides additional details of Warburg's study: he traces the reappearance of the nymph in a relief of *The Judgement of Paris* on a Roman sarcophagus from the third century AD, via the Renaissance in Raimondi's engraving of *The Judgement of Paris*, to its modern depiction in Manet's *The Luncheon on the Grass* (fig. 3).

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[68] As Matthew Rampley has shown (2001a, 2001b), where the iconology of Erwin Panofsky focuses on the conscious artistic use of symbols and conventions, and the social mediation of pictorial meaning, Warburg's 'iconology of the interval' focuses rather on the dynamic embodied processes that underpin pictorial meaning.

Figure 3 has been removed due to Copyright restrictions.

Gombrich, in particular, reveals that by highlighting the transformations of the figures depicted in each of these works, noting the changes in details such as in the physical weight and postures of the group, Warburg was able to show how the figure of the nymph was transformed, or animated, by the underlying 'pathos formula' of the cultures in which these works were created. A feature of the transformations brought about by each formula was the philosophical change in the theory of causation, with the gradual 'archaeological sterilisation' of the deities during the European Renaissance:

> Between the 'Judgement of Paris' as it is represented on the pagan sarcophagus and Manet's 'Dejeuner sur l'herbe' mankind witnessed

> the decisive change in the theory of causation relating to the basic phenomena of nature. The idea of an immanent and impersonal law ruling natural events sweeps the whole haggling governing body with its all-too-human foibles from the heavens. … the major Olympic divinities have ceased to be the subject of active sacrificial rituals since they have been archaeologically sterilized. (Warburg, cited in Gombrich, 1970, pp. 276-267)

As Gombrich (1970, pp. 275-266) recounts, at each stage, the psychological type of the human being depicted is completely transformed; the change in the details of the human figure correspond to the change in causality brought about by the Renaissance's neutralisation of the idea of the involvement of the gods in everyday life. In the Roman sarcophagi, the group (of river gods and the nymph) is drawn into the events happening around Mount Ida (the return of the gods), with the nymph raising her hand in awe or surprise. The group, presented in a reclining, almost passive posture, are the embodiment of the passivity tied to the 'pathos formula' of the period, in which the gods held sway over the natural world. This 'phobic engram', or memory image, manifest in the details of the group, shifts in the later composition by Raimondi: the nymph no longer looks toward the gods, but has her head turned toward the beholder. Warburg situates this shift in the gradual transformation into the pastoral of the early modern period.[69] He concludes that this transformation paved the way, philosophically, for the group's subsequent transformation in the work of Manet, where nothing is left of the fear of the gods in these figures; the whole psychological dynamic of the human representations has been utterly transformed through the dynamics of successive embodied 'pathos formulae'.

Gombrich's account of Warburg's analysis of the transformation of the human figures represented in the group of river gods in Manet's *The Luncheon on the Grass* gives the phenomenological reading of the work by Crowther (2013), introduced in

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[69] Gombrich (1970, p. 276) further reveals this in Warburg's own analysis of a Dutch seventeenth-century version of the composition, in which the group is depicted as contemplating a herd of cows.

Chapter One, further depth. Where Crowther studies what he terms the ‘stylistic tendencies’ of the work – its flatness, awkwardness or ‘unfinished’ elements – in terms of the temperament of the artist, Warburg’s iconological approach adds the study of the details of the human figures. The inclusion of Warburg’s thinking adds the important dimension of the imagination underpinning all visual materials, not just artistic materials, to the study of how such artefacts ‘come to mean’, as well as the notion of ‘transformation’ as a way of studying the ‘pathos formula’ of the artist that is fixed in the details of the human representations over time.

Where Crowther’s work deepened socio-cultural formalism by including the individual artist’s way of acting in the world, Warburg’s work adds further depth by including the degree of perceptual, cognitive and imaginary change and transformation over time. Recognising that a body (and the psychological, phenomenological experience that animates it) is historical and contingent requires an alternative approach to the study of how images ‘come to mean’, one that focuses upon situating the current ‘style’ of a given motif as a way of acting upon the world that transforms what preceded it. Warburg’s work attempted such an analysis, culminating in his final work, *The Mnemosyne Atlas*. This work is described in the next section, and provides the chapter with a method by which the study of how images ‘come to mean’ can take account of a constantly changing physiology, mind, imaginary and perception.

3.4 The *Mnemosyne Atlas*

Warburg’s iconographic approach to the study of the transformation of symbols across time and cultures, an ‘iconology of the intervals’, involves the study not of the meaning of images in themselves, but of the tensions, analogies, contrasts or contradictions between them that result in how they ‘come to mean’. This approach to the study of the embodied, psychological and emotional energies underpinning the creation of details in images is seen most clearly in Warburg’s final (unfinished) project, the *Mnemosyne Atlas*. It provides a methodological tactic with which to investigate and reveal the embodied energies that are crystallised in the details of a work’s visual style.

The *Mnemosyne Atlas* (fig. 3a) is a collection of panels covered with black cloth upon which Warburg juxtaposed diverse cultural images, gathered during his research, which he used to reveal the ‘pathos formula’ he found crystallised in them. It is through this juxtaposition, and by reading the images collectively through the spaces and tensions in-between them, the ‘black intervals’, that Warburg was able to study the variations and repetitions that appear in their details.

Figure 3a has been removed due to Copyright restrictions.

Based on analysis not of the meaning of the individual images themselves but of their interrelationships, this arrangement of materials reveals the dynamic changes, differences and relationships between the images through analysis of the details of the human figures represented in them. As Philippe-Alain Michaud (2007) notes:

> The panels covered with black cloth on which Warburg mounted his images were made not the be exhibited as such but to be photographed in order to form a new, complex entity … One must also see them in their material configuration, being attentive to the spaces between the images, their variations and their repetitions, the way in which the reproductions are concentrated in certain areas of the panels. … With Mnemosyne, Warburg established “an iconology of intervals” …

> involving not objects but the tensions, analogies, contrasts, or contradictions among them. (Michaud, 2007, p. 244)
>
> In arranging the images on the black cloth of the panels of his atlas, Warburg was attempting to activate dynamic properties that would be latent if considered individually … [H]is album of images represents the place in which the original expressive energy can be rekindled in archaic figures deposited in Modern culture and in which this resurgence can take shape (Michaud, 2007, pp. 253-255).

Crucially, it was through this juxtaposition of images taken from different sources (Renaissance art, maps, religious iconography and everyday visual ephemera) and the study of how the human figure in each was animated through certain details that Warburg was able to realise and more fully understand something that none of the images studied in isolation could reveal: the period's mimetic, embodied and psychological underpinning, shared by the visual images in the collection. This 'pathos formula' or imaginary of a certain period can only be fully understood when diverse images of that period are brought together and studied alongside an analysis of the embodied, experiential and perceptual dimensions of the artists, practitioners and producers whose gestures and movements, the body itself, animate them, leaving its traces.

3.5 The measure of the body of the viewer

Warburg's extension of Vischer's empathy theory and concept of mimesis to the gestures and movements of the body in the study of art history focuses attention on the body's pre-reflexive functioning, and its psychological and imaginary underpinning, which result in an image's formal details. However, while Warburg's extension of empathy theory to the movement of the body meets the wider challenges presented by experimental psychology's physiological model of perception (particularly the work of von Helmholtz (1924)) during this period, it fails to include the active (constructive) nature of the viewer's own physiological perception and experience (as outlined in the previous chapter). Warburg's analysis remains within the embodied gestures, movements and perceptual experience of the creator of the image.

Koss (2006) provides an insight into how the focus on the primacy of the artist's perceptual experience was theorised within the study of art history during this period. She describes how, during the late nineteenth century, theorists of *Einfühlung* (particularly Vischer) tended to describe the aesthetic responses of a viewer by extrapolating from their own personal experience. As Koss (2006, p. 145) suggests, while it is never explicitly stated, Vischer's notion of the empathetic viewer was a viewer of his own making: "a man of property whose identity was destabilized within the confines of a relatively private realm, carefully circumscribed by the laws of decorum and propriety". Vischer's aesthetic empathy, which finds its way (in part) into the later work of Warburg (Rampley, 1997), was based on his own perceptual experiences; he addressed an individual (aesthetic and artistic) perception in which authority rested with the body of the author or artist, who presented their experiences as universal (Koss, 2006, p. 144).

As Koss (2006, p. 145) reveals, the contemporary experimental psychological research of Vischer's time was not adequately represented in his theoretical work. The emergence of the work of experimental psychologists such as von Helmholtz, and the subsequent creation of a theoretical lineage of constructivist perception, brought an additional challenge to the aesthetic notion of *Einfühlung* that Warburg's work does not explicitly respond to: the underlying model of the perception of the spectator or viewer who was active and projective. Koss (2006, p. 145) describes how experimental psychologists and aesthetic theorists during the late nineteenth and early twentieth centuries began to lose interest in the concept of *Einfühlung*, largely due to the discovery of perceptual difference among individuals tested in psychological laboratories. Koss points to the work of Edward Bullough, who discovered that, in the main:

> [t]he same subject found oblique straight lines sometimes pleasant and sometimes unpleasant, occasionally on one and the same day … [N]o single one of the explanations championed by different adherents of the theory [of *Einfühlung*] could claim the monopoly of truth" (Bullough, cited in Koss, 2006, p. 144).

Contrary to Vischer's (and *Einfuhlung's*) claims of the universal effect of simple forms and shapes on a generalised viewer, the findings of experimental psychology made it clear that such a universally consistent characterisation could not be confidently assigned to even the simplest of visual forms, demonstrating that an active spectatorship existed at the level of the physiology of the individual viewer.[70]

The wider context of experimental psychology during the early twentieth century, in particular the recognition of the importance of the work of von Helmholtz to the critique of *Einfühlung,* provides a constructivist (active) model of the physiological perception of both artist and spectator, as outlined more fully in the previous chapter. Thus, the critical literature regarding Warburg's situating of empathy and mimesis in the gestures and movements of the artist, in order to study the development of images, can be extended to also include the embodied perception of an active spectator, who is also a part of the ‘pathos formula’ of the period, and whose beliefs, practices and philosophies underpin how the image is received. An image ‘comes to mean’, as was argued in the last chapter, not just through the expression of an individual artist’s embodied perceptual experience, but also necessarily involves the projection (or expression) of the viewer’s own perceptual experience.

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[70] Koss (2006) situates the psychological critique of empathy in the arrival of a new kind of spectator, a cinematic one. As she suggests, with the expansion of middle-class leisure, the explosion of mass media, and the unprecedented growth in the audience for culture in the last decades of the nineteenth century, the cultivated individual Vischer theoretically constructed became increasingly difficult to maintain. Koss notes particularly how "[m]en, women, and children are together in one room, allowed to enter after paying a relatively small entrance fee. Rather than owning the work that they view, in other words – or emulating this established model of aesthetic perception, as museum visitors do – they have gained access to it temporarily by means of a commercial transaction, and the terms of their engagement have changed" (p. 145). In highlighting the popularity of cinema among lower- and middle-class spectators during the early twentieth century, Koss suggests a different model of a non-universal spectatorship that, within the context of experimental psychology, is understood as an individual and crucially active (constructive) spectatorship not limited to class, gender or age.

3.5.1 *The excitation of the viewer*

The philosophical importance of the active involvement of the bodily-based perceptual experience of the viewer regarding Warburg’s writing has been discussed more recently by Michaud (2007) in the context of film theory, Martha Blassnigg (2006) in her study of early cinema spectatorship, and Spyros Papapetros (2012) in his writing on architecture. Papapetros, in particular, proposes the extension of the animating principle of Warburg’s theory of art to one in which the image is understood as an ‘excitation’ or animation of the mind of the viewer who perceives it. As stated earlier, Warburg’s notion of the ‘animated accessory’ in painting was heavily influenced by the writings of Vischer; he saw the rustling of drapery, for example, as a manifestation of the synaesthetic operation of the artist linking the earthly world of the material and the spiritual one of the immaterial. It is this aspect of the animation of details that Papapetros describes as also ‘exciting’ the imagination of the viewer.

As Papapetros (2012, p. 46) recounts, Vischer saw the incidental details of drapery as a material threshold between the spiritual and earthly domains, and this becomes the most palpable feature of representation, as “a transient body, whose rustling movement activates the synesthetic [*sic*] interface between two [seemingly] remote worlds”. In returning to the writing of Vischer, Papapetros reveals an agential aspect to the ‘fluttering fabrics’, which functions in the absence of bodily empathy. Quoting Vischer (cited in Papapetros, 2012, p. 45), “the hand of a specific artist or member of a school could be distinguished by the idiosyncratic manner in which he drew fabric pleats. Garments [or] hair are the critical means of the subjective in painting”, Papapetros draws attention to a crucial aspect of the artist’s subjectivity – that being expressed through and in an object (such as a painting), subjectivity is externalised and contained in the created object, effectively functioning as a ‘cause’ or stimulus for the further excitation of the subjectivity and imagination of the viewer.

Papapetros develops Vischer’s, and in turn Warburg’s, physiological and psychological understanding of the fluttering of garments and hair through a closer re-reading of the animal psychology of both Vignoli and Darwin. This revision of the wider literature around Warburg’s thought provides an insight that deepens his theory of figuration: the movement depicted in the details of hair and clothing, Warburg’s notion of the ‘memory image’, produces a further excitation in the embodied perception of the viewer. In support of this insight, Papapetros cites an allegory by Vignoli, in which a horse is affected by the fluttering of an ‘agent-less’ handkerchief (an echo of the child’s projection of a snarling dog onto an unknown aural stimulus, as mentioned earlier in the chapter):

> One day I and a friend were out driving with a horse, and I directed a man, while we were passing at moderate pace, to wave [a] handkerchief, attached to a stick, in such a way that this person on the other side of the hedge was invisible. The horse was scared and shied violently, even in the stable he could not see the handkerchief without trembling. (Vignoli, cited in Papapetros, 2012, p. 47)

Following this line of thought, the rustling of drapery depicted in a Raphael painting described by Vischer becomes the threshold to an ongoing ethereal world of animation (Papapetros, 2012, p. 45), and the cause of a new excitation in the embodied, projective perception of the object in the viewer's perceptual experience. According to Papapetros (2012, p. 47), a close reading of Vischer's account of Raphael's drapery (which influenced Warburg's own work), reveals that it represents a transition from the embodied empathy of the artist to the embodied empathy of the viewer. The inorganic object (the painting itself), when experienced, gains agency as an affective excitation (or animation) of the projective perceptual experience of the viewer.

3.6 Conclusion

The critical literature surveyed within this chapter regarding Warburg's notion of the 'image' and his study of the materials of visual culture allows a discussion in which images are understood as the expression of an historically contingent, embodied, perceptual experience (the manifestation, or crystallisation, of movement and gesture, underpinned by the imaginaries, beliefs, practices and psychologies of a particular period). Crucially, Warburg's analysis of the gestures and movements that result in an image, rather than of the artwork itself, allows a shift in focus from *what* a work means to *how* a work 'comes to mean' – the enquiry that lies at the centre of this thesis.

Three aspects of Warburg's work are important for the current discussion. First, the creation of the image is not separate from the metaphysical and experiential dimensions of human bodily experience, but is firmly rooted in it; it is 'embodied' within the gestures of a body. The study of the image begins in terms of these embodied, psychological energies that are accessible through an analysis of the form of the work, rather than a study of the final form itself. Secondly, no art or practice has a distinct hierarchy, as all human endeavours, practices and disciplines are underpinned by the embodied perception and psychological experiences that are energised by a specific 'pathos formula', comprising the beliefs, philosophies and practices of the period. Finally, the current presentation of the world, as reflected in the details of an image, is not distinct from a past presentation; past forms endure or are re-formed through a 'polarisation' or projection of an embodied experience or 'pathos formula'. The differences between the human figures depicted within visual materials are the site for the study of the 'pathos formula' underpinning this re-formation, as Warburg demonstrated in his *Mnemosyne Atlas*.

Warburg's focus on the embodiment of the details of images in the gestures and movements of the artist's body finds contemporary support in Crowther's theory of the phenomenological depth of the visual 'style' of modernist painting, which represents an expression of a way of acting upon the world, as described in Chapter One. The phenomenological depth of visual style that Crowther describes through the study of works such as Manet's *The Luncheon on the Grass*, its flatness, awkwardness and ambiguity is 'thickened' by including Warburg's analysis of the details of the human figures depicted within the same painting. Not only can the phenomenological body be read through the style of the overall presentation, but also through the qualities of line, the weight of the forms and the figurative elements.

In recognising the importance of the phenomenological body of the viewer, just as much as the artist, the details that reveal the 'pathos formula' of a work are not so much 'discovered' as co-created *through* the activity of inquiry itself, a 'reciprocal interaction and modification' as described by Crowther (2012) in Chapter One. The phenomenological body; its lived multi-sensory and experiential depth of both the artist and the viewer, outlined in the last two chapters, is deepened by adding the weight of the psychological, mnemonic and imaginary dimensions of a historically contingent way of acting upon the world. This historically contingent way of acting upon the world be read through a phenomenological analysis of the human figures depicted within visual materials, that is itself always read *through* another historically contingent way of acting upon the world, that of the viewer. The meaning of a work, how it is experienced, the very details that are analysed, are always co-constructed, modified, through the perceptual experience of the viewer. The work itself is always in a state of *becoming*, within the context of a constantly changing perceptual experience of the viewer, an idea that will be further explored as a part of the context of the work of Chapters Four and Five.

Interlude

An Expression of the Environment (Samuel Beckett's *Film)*

The focus over the last three chapters has been to re-introduce the functioning, development and experience of the body for the study of how visual materials material mean. The locus of study, as has been situated within phenomenological and embodied frameworks, has been to more fully recognise and discuss the importance of the activity of a bodily-based, multisensory perceptual experience as immersed within an environment. Attention now moves to the importance of the environment within which the body is immersed within the mind-body-world system of Merleau-Ponty's 'lived body'. To reiterate, as Jennifer Barker (2009) describes in the context of film, through Merleau-Ponty, a phenomenological analysis of film recognises film and viewer as acting together, 'correlationally', along an axis that constitutes an object of study in itself. Perceptual experience is co-constituted by both subject and object; the object of perception responds to the viewer. Merleau-Ponty's philosophy thus points to the importance of the material, lived world of objects – as an active, affective and responsive force – to the attempt to better understand the perceptual structures of a phenomenological experience.

Merleau-Ponty's phenomenology highlights an aspect of a phenomenological body that has not been touched upon thus far: the active processes that constitute the perception (or perceptual experience), and underpin (or animate) the movements and gestures of both artist and viewer that extend into the environmental conditions and objects that the body is immersed within. The critical literature writing regarding the ideas of Warburg in the last chapter suggests that just such an energetic, animating cause of the movements of the body and activity underlies the creation of animated details in images – for example, fluttering garments or heavy, rooted postures. His 'pathos formula', which underpins the movements and gestures of the practitioner, can thus be studied through the animation of such details by environmental forces and energies such as wind and gravity within which objects are set.

To begin to get a sense of the correlational relationship between body and environment within a lived bodily experience, a description of a philosophical film work by Samuel Beckett, *Film* (1965) illustrates the complexity of a relationship between the movements and gestures of the body as it responds to the affective aspects of the environment. The result is seen in the specific form the film takes. It begins with an extreme close-up of a blinking eye that forcefully directs its gaze toward the viewer; the viewer's gaze in return is locked in an exchange with the eye. What follows is a filmic form that is structured by a perceptual game between the perceiver and the perceived, as Buster Keaton seeks to escape, to no avail, the relentless, mobile perception of the camera that effortlessly and silently stalks his every move. The camera and Keaton constantly respond to each other's movements, entangled in an endless choreography or dance (fig. 3b). Beckett's work is based on George Berkeley's famous dictum, *Esse est percepti* (that is, 'To be is to be perceived'), and represents the playing out of a kind of 'theatrical game', poised between the camera's and Keaton's perceiving 'eye'.

Figure 3b has been removed due to Copyright restrictions.

The choreographic relationship between the camera/viewer and Keaton that structures the form of Beckett's *Film* extends into an additional dimension: the relationship between the affective objects of the environment and Keaton himself. As Keaton attempts to escape the perception of the viewer/camera, his movements also respond to an all-perceiving environment of objects, animals and images. The direct address of a painting of a staring God, his own reflection in a mirror, the gaze of a caged bird and the fixed stare of a heavily crafted chair back cause Keaton to recoil and cover up or destroy these agents that impact on his movements. The entangled relationship that is played out between the movements of Keaton, the always-perceiving environment and the camera/viewer presents a human figure (that of Keaton) whose movement and activities run in counterpoint not only to other human figures and visual materials, but to the very forces, tensions and resistances of the (affective) material world. In this sense, neither Keaton's nor the camera's movements are independent, each intimately responds to the other's activities, which in turn respond to the always-perceiving environment, forming a dance or play in which the final form the 'choreography' takes (the film itself) is part of a dynamic system of expression that requires the activity of many partners.

Beckett's *Film* illustrates the focus of the following chapters, particularly the notion that perceptual experience is, in part, underpinned by the affective 'energies' of an active and responsive material world impacting on the body of the artist or maker as they move and create – a phenomenological body that is immersed in an active and responsive environment. The affective dimensions of the objects of the environment are expressed in Keaton's movements and activities as he responds to them, and the activities in turn are expressed in the final form of the film itself. Chapters Four and Five will investigate more fully the importance of the inclusion of the environment in understanding the movement of the phenomenological body and the development of mind. This is primarily undertaken through the phenomenology of

Merleau-Ponty, particularly in relation to an understanding of how visual materials ‘come to mean’. The recognition of the importance of the environment –what will be described as the domain of matter, artefacts and objects in Chapter Five– for the study of visual materials underpins the trajectory of the second half of this thesis.

Chapter Four

The Body's Immersion in an Environment

As the analysis of how visual materials (images) 'come to mean' has so far focused on the gestures, movements and functions of a phenomenological body, so the body's immersion in the active processes and conditions of its environment becomes a further important locus of enquiry; a mind-body-world system. In the attempt to understand the role and importance of the environment in bodily-based activity, creative activity and the creation of visual materials, this chapter undertakes a re-contextualisation of Warburg's art historical approach, through the phenomenology of Merleau-Ponty (1942, 1961), in order to enlarge the present focus on the phenomenological depth of images through the inclusion of active environmental processes.

According to Merleau-Ponty (1942), the artist's 'behaviour' – their bodily gestures and movements – lies at the centre of an organism-environment coupling, through which the 'texture' of the environment (an affective environment made up of energetic forces) is made visible through the activity of painting itself. For Merleau-Ponty (1961), art renders visible the invisible forces and energies that impact on the gestures and movements of a phenomenological body, because this body is always immersed in the texture of the environment. The very activity of painting itself brings into analytical focus the environmental forces that are present within it, below the level of consciousness.

To more fully understand the role and importance of the environmental processes Merleau-Ponty refers to, this chapter surveys more contemporary conceptions of enacted mind and perception drawn from cognitive science – for example, Noë (2003) and Varela (1993). Such models of mind recognise that mind and perception are emergent properties of an organism-environment system, in which the environment, mind and perception are 'brought forth' or 'enacted' through the movement and activity of a phenomenological body entangled with its environment. Recognition of the importance of environmental processes in the constitution of mind, perception and human activity has implications for the study of how visual materials arise, and how their ontology and meaning are emergent within activity and movement as functioning within an organism-environment system. Enactive conceptions of perception, mind and its relationship to depiction will be used in this chapter to enlarge the concept of the phenomenological depth of images that has been developed over the last three chapters. To question how images 'come to mean', it is argued, it is necessary to include the 'depth' of the meaning-making process as it extends into the active processes of the environment in which the practitioner's movements and activity are immersed.

4.1 The environmental cause of depiction

Through the study of the animation of details in images – for example, garments, hair or posture, animated by wind or gravity – Warburg's art historical method (outlined in Chapter Three) points toward the expression of invisible environmental processes as they impact on the painter's body. Michaud (2007) uses the revelation of these further dimensions of depiction to contextualise Warburg's thinking; his re-reading of Warburg's work takes it beyond the normative iconographic approach adopted by many of his followers.[71] Michaud recognises that it was in seeking to understand the relationships that bind the external reality of the world with the artist's psychological intuition that Warburg, through an exploration of the forces and energies that result in

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[71] In particular, Michaud (2007) points to Erwin Panofsky, Edgar Wind and Fritz Saxl, whose iconological approach focused on the interpretation of symbolic material.

‘figuration’, aimed to study the metaphysical character of the figures the artist depicts. As he highlights, Warburg believed this metaphysical character to be a manifestation of an imaginary or ‘pathos formula’ that also has an external cause, one that extends into the forces and processes of the environmental conditions of the objects depicted, as well as that of the viewer of the work.

The mythological figures that Warburg analysed, Michaud recognises, are not simply the incarnation of an idea in the mind of a single artist, but a manifestation of the multiple forces and influences of a ‘pathos formula’ that extends beyond the body of the artist who ‘created’ these figures, forces that become evident in their details. Warburg studied such external influences through the analysis of figures whose clothing and hair are depicted in movement, recognising that this is caused not only by their own bodily movements, but also by external factors such as the wind. Warburg’s analysis thus encompasses the external causes of objects in their natural conditions. Michaud describes the fluttering fabrics that Warburg studied:

> As they began to move, the figures became the source of strange tension, the product no longer of a single will but of independent and multiple forces exercising contradictory influences – that of the artist, but also those of the model and of natural conditions, as well as that of the viewer looking at them. (Michaud, 2007, p. 83)

As Michaud brings into focus, Warburg believed that the energising processes that underlie the creation of an image extend into its environmental conditions – a process influenced in part by external causes that impact on the body of the artist, situated in the natural environmental conditions of the world. These external causes, energies or forces are manifested in the cultural artefact itself (the created image) in which these environmental conditions that impact on the gestures and movements of the artist’s body become ‘contained’ or crystallised. In this sense, the depicted figures can be understood as more than the incarnation of an idea in the mind of an artist; they are expressive of the processes and forces underlying the tensions of the artist's body, immersed in an energetic and active environment.

As suggested at the end of the previous chapter, by focusing attention on the study of the animating environmental forces that result in the details of a painting, Michaud's reading of Warburg's account of figures bears a resemblance to the model of artistic figuration described in the phenomenology of Merleau-Ponty (1961), particularly his analysis of modern painting. According to Merleau-Ponty, the painter does not represent a world, but 'brings one forth' through their movement and gestural 'behaviour' as they paint. Crucially, the artist's movements and behaviour are in part underpinned by environmental forces and conditions, which render themselves visible in the painting itself. Merleau-Ponty's existential and non-representational framing of the process of figuration provides a philosophical context in which the processes and causes of figuration that extend into the environment, can be studied as expressed within the style and details of the figures within images.

4.2 Movement as the centre of existential stimulation

It is important here to clarify Merleau-Ponty's understanding of 'behaviour', as it stands apart from the dominant gestalt theories of the early twentieth century, and differs from a 'behaviourist' understanding of the term. Merleau-Ponty's ([1942] 2011, p. 42) conception of behaviour is built around a central tenet: the physiological and the mental cannot be separated into isolated domains. This classical distinction, held by the psychological behaviourism of his time, provided Merleau-Ponty with the opportunity to re-think the term. Throughout *The Structure of Behaviour* (1942) he describes behaviour not in terms of a classical stimulus-reflex response, a one-way causal chain between external stimulus and physiological response, but as a reversible, two-way relationship in which neither has primacy.

In *The Structure of Behaviour*, Merleau-Ponty constructs a model of 'existential stimulation' in which there is no one direction of stimulus and response, instead both the milieu (the properties of the environment) and the organism's perception are co-constituted or intermingled, and emerge through the movement of the organism in its environment:

> The properties of the object and the intentions of the subject ... are not only intermingled: they constitute a new whole. When the eye and the ear follow an animal in flight, it is impossible to say 'which started first' in the exchange of stimuli and responses. Since all movements of the organism are always conditioned by external influences, one can, if one wishes, readily treat behaviour as an effect of the milieu. But in the same way, since all the stimulations which the organism receives have in turn been possible only by its proceeding movements which have culminated in exposing the receptor organ to external influences, one could also say that behaviour is the first cause of all stimulations. (Merleau-Ponty [1942] 2011, p. 13)

According to Merleau-Ponty, the intentions of the subject and the properties of their milieu are co-constituted; there is no primacy of either world or perception (intention), they are symbiotic and through their intermingling constitute a new 'whole' or reality. As such, Merleau-Ponty declares, the true source of any stimulation is not an external excitant but movement or behaviour, which is constituted by the co-dependence of the organism (including its perception) and its milieu. Merleau-Ponty's phenomenology thus provides an account of the mind of the practitioner that is not confined to the boundary of their skin, but extends into, and is intermingled with, the objects and bodies that constitute the artist's milieu.

Merleau-Ponty's critique of the classical behaviourist conception of a stimulus-reflex response, and the consequent separation of the physical and the mental, lies at the centre of his critique of the gestalt account of form. In this respect, he reclassifies this conception (of a fully formed excitant or stimulus that invokes a response or behaviour in the organism through its physical properties) as taking on the intentional properties, or phenomenology, of the subject and the physical properties of the world; the external stimuli are 'chosen' by the subject through their movement in the world. What can be considered the 'form' of an excitant is understood as emergent in the tension between multiple stimuli extending from both the organism and the environment:

> The form of the excitant is created by the organism itself, by its proper manner of offering itself to actions from the outside. … it must encounter a certain number of physical or chemical agents in its surroundings. But it is the organism itself – according to the proper nature of its receptors, the thresholds of its nerve centers and the movements of the organs – which chooses the stimuli in the physical world to which it will be sensitive. (Merleau-Ponty, [1942] 2011, p. 13)

Through invoking the term '*Umwelt*' ('environment'), associated primarily with the work of von Uexküll, Merleau-Ponty ([1942] 2011, p. 13) clarifies what he means by the idea of the organism's nervous system and movement 'choosing' stimuli: "The Environment (*Umwelt*) emerges from the world through the actualization or the being of the organism – [given that] an organism can exist only if it succeeds in finding in the world an adequate environment". The world is classified as a domain of infinite possibilities for action and movement through which an organism moves and 'chooses' the environment they live in (that is, the properties of the environment) from what is available to them and as delimited by their nervous system and abilities.

It is in the context of this notion of the environment coupled to the movement of the organism that Merleau-Ponty is able to equate his reformulation of the gestalt conception of form with the notion of *Umwelt*, an environment that emerges out of the infinite possibilities of the 'world' created by the organism's movements and activities. He maintains:

> [T]here is form whenever the properties of a system are modified by every change brought about in a single one of its parts and, on the contrary, are conserved when they all change while maintaining the same relationship among themselves. (Merleau-Ponty, [1942] 2011, p. 47)

As such, it follows that form:

> […] possesses original properties with regard to those of the parts that can be detached from it. Each moment in it is determined by the grouping of the other moments, and their respective value depends on a state of total equilibrium, the formula of which is an intrinsic character of form. (Merleau-Ponty, [1942] 2011, p. 91)

Merleau-Ponty's understanding of form, contrary to the gestalt conception, which stems from the classical idea of the stimulus-reflex response, is created through (or, rather, emergent in) the organism's ability to move and act coupled with its environment. Form, or more precisely the melding of the properties of both organism and environment that come to delimit the form, is emergent in the infinite possibilities provided by the world through the organism's ability to move and act within it. As Merleau-Ponty states, the properties of the object and the intentions (actions) of the subject are intermingled, constituting a new, emergent whole – that he defines as 'form' – which is not reducible to the sum of any of its constituent parts. This existential conception of form is explicated more fully in the study of modernist painting in his later work, *Eye and Mind* (1961). Crucially, for Merleau-Ponty, it is the processes that constitute the emergent form (or the object depicted in a painting) that are the focus of analysis, processes that he identifies as crossing both the domain of the body of the painter as they paint (their movements and gestures) and that of the properties of the object as it is perceived and depicted.

4.3 The painter does not 'represent' but 'brings forth'

In placing movement and behaviour at the centre of his theory of existential 'stimulation', Merleau-Ponty conceives of the task or work of painting as not to represent or evoke, but to 'bring forth'. In *Eye and Mind* (Merleau-Ponty, [1961] 1964, pp. 166-167), painting is seen as the process of giving a visible existence to what a profane vision believes is invisible: the wider processes and forces of both the multi-sensory body and the properties of the environment. The visual, for Merleau-Ponty, is always open to a 'texture of being' that extends beyond the physical body, and in which the body's discrete sensory stimulations are the punctuation point between those of the much wider invisible texture of the world. He declares that there really is an 'inspiration' and 'expiration' of being, as the creation of an artwork is a process of *respiration* in which it is impossible to distinguish between *who* paints and *what* is painted (Merleau-Ponty, [1961] 1964, p. 167).

Merleau-Ponty does not conceive of the painter's vision as a 'physical-optical' view of the outside world; the world does not appear before the artist through a process of representation. Rather, it is the painter to whom the things of the world give birth through a sort of concentration or 'coming-to-itself' in the visible. Through the activity of painting (Merleau-Ponty, [1961] 1964, pp. 179-181), a 'coming-to-itself' is born in the movements and gestures of the artist as they paint. In the context of phenomenology, the activity of painting is portrayed in the writings of modern artists such as Paul Klee and Paul Cezanne[72] as rendering visible the invisible forces that constitute the artist's 'extended mind' – that is, the forces and processes of mind that extend into the properties of the environment.[73]

4.3.1 *The environmental causation of painting*

Merleau-Ponty's account of the emergent nature of depiction underpins his study of modern painting and is derived from his phenomenology. As such, it provides two key theoretical points that enable a fuller recognition of the environmental causes expressed in the style of other visual materials: firstly, the movement and behaviour of the body of the artist acts as a centre of stimulation, whose conditions are distributed among the wider co-dependent system comprising the body and the world; secondly, as a consequence, what is depicted is not a representation, but rather the making visible of the invisible forces and processes of a mind-body-world coupling, a 'bringing forth' or the expression of a reality through the movements that generate the depiction of figures.

Most importantly, this emergent conception of depiction is not limited to specific types of figurative art but is relevant to all artistic practices, as they are all rooted in an ontology of becoming. In this sense, Merleau-Ponty focuses attention upon the dilemma frequently encountered in the opposition of figurative to non-figurative art. The question, he declares, is wrongly posed – ontologically, both figurative and abstract art can be understood as the ‘bringing forth’ of a ‘silent being’, in which “[v]ision is the meeting, as at a crossroads, of all aspects of being” (Merleau-Ponty, [1961] 1964, p. 147). An artist’s expression is always existential. Both figurative and non-figurative art[74] (as well as any other kind of depiction), regardless of their socio-cultural framing the subject-matter being addressed, are ontologically similar, rooted in the gestures and movements of the body of the painter.

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[72] For Merleau-Ponty, modernist painters were sensitive to such a situation in which the processes and activity of painting are caught up in the processes taking place between the body and the world. In citing the artist Andre Marchand, Merleau-Ponty (1964, p. 167) notes that the painter is always penetrated by the universe as he paints, is always buried by the world he paints, through feelings, sights and sounds. The mind of the painter does not lie within the boundary of the body; it is distributed: "The painter lives in fascination". Such fascination seems to emanate from the things themselves. For the modern painter, the very gestures most proper to him seem to also emanate from the things themselves; they are not confined to his body, but are a part of the world itself. Merleau-Ponty cites Marchand (echoing Klee): "In a forest, I have felt many times over that it was not I who looked at the forest. Some days I felt that the trees were looking at me, were speaking to me … I was there, listening … I think that the painter must be penetrated by the universe and not want to penetrate it … I expect to be inwardly submerged, buried." (Marchand cited in Merleau-Ponty, [1961]1964, pp. 167-168).

[73] In Merleau-Ponty's phenomenology, the mind of the painter flows like air between the body and the world, between the subject and the object, beginning and residing in neither, as mind cannot be attributed to a single body, but is relational between all bodies. As he declares, the mind of the artist goes out beyond the body to wander among objects themselves (Merleau-Ponty, [1961] 1964, p. 166).

Merleau-Ponty’s existential (non-representational) account of figuration, read through the work and writing of modern painters, offers an account of the activity of painting or figuration in which aspects (or processes) of perceptual experience can be traced to an external cause; they emerge from the wider processes and forces of the environment that the painter is immersed within in and depicting. The forces or causes themselves become fixed in the object depicted. Merleau-Ponty’s description of the environmental causes that, in part, underpin the gestures and movements of the painter deepens the explanation of the animation of fluttering fabrics and hair that is foregrounded in Michaud’s reading of Warburg’s work through the recognition that their depiction is in some way animated by the very environmental conditions (such as the wind) that are fixed in the image.

In the wider existential phenomenological context of Merleau-Ponty’s philosophy, the animation of the fabrics and hair by the wind and other environmental factors is understood not as the artist's representation, but rather as the 'making visible' of the invisible environmental forces that impact on the artist's gestures. Merleau-Ponty's thinking provides a philosophical framework in which to recognise more fully the co-dependence of the organism (the practitioner) and the environment as they 'bring forth' a world through movement. This understanding, it is argued, has implications for the study of phenomenological depth in the style of a painting[75] (the focus of the previous chapters) and of other visual materials. Crucially, Merleau-Ponty adds to the embodied and psychological models of mind and perception introduced in the first three chapters – which placed the body in the context of the functioning of mind, perception and creative activity – the environmental conditions of objects and things with which the gestures of the painter or practitioner are intermingled.

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[74] In describing both abstract and figurative art, Merleau-Ponty ([1961] 1964, p. 147) declares: “[I]t is at once true and contradictory that no grape was ever what it is in the most figurative painting and that no painting, no matter how abstract, can get away from Being, that even Caravaggio’s grape is the grape itself”. In this respect, both figurative and non-figurative art are more in line with Warburg’s notion of the ‘image’ (outlined in Chapter Three); that is, as an embodiment of a way of acting within the world.

4.4 'Extended' and 'enacted' approaches to mind

The extended processes of mind as coupled to the environment has been widely discussed in the philosophy of mind and cognitive science in terms of 'extended' and 'enactive' conceptions of mind. Whereas both these concepts recognise the importance of the role of the environment in the development of cognition, they differ in their interpretations of the body and the environment. These differences will be spelled out briefly in the following section, focusing on two main conditions that arise from such thinking: namely, (1) what constitutes the 'mental' – perception and cognition – extends beyond the boundary of both the body and, as such, the mind, and thus it follows that (2) perception cannot be understood as representational (in the classical sense) but as emergent, 'brought forth' through movement and activity.

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[75] A focus that Merleau-Ponty himself adopted, particularly in his writing on the existential perceptual significance of the style of artists such as Cezanne and Picasso, underpinned by his earlier *The Phenomenology of Perception* (1962), and as suggested in his later study of Cezanne, *Eye and Mind* (1964).

4.4.1 *The mind extends beyond the boundary of the skin*

Gregory Bateson ([1972] 2000), a biologist working in the field of anthropology, recognised in the 1970s that the boundary that is conventionally assumed to exist between organism and environment – that is, between an external 'physical' world and an internal 'mental' one – is not so absolute. According to Bateson ([1972] 2000, p. 460), "the world of information processing is not limited to the skin", and in some cases can be regarded as an extension of a wider *system* of relations and processes that includes the material world. Drawing on ideas of epistemology and ontology put forward by the 'systems theory' of cybernetics,[76] current in the mid-to-late twentieth century, Bateson sought to explain the behaviour and mind of man (or of any other organism) in terms of the totality of the larger system in which it is a part; in other words, "the mental characteristics of the system are immanent, not in part, but in the system as a whole" (Bateson, ([1972] 2000, p. 316).

For Bateson, the mind is seen as immanent or emergent in a larger system of information processing which comprises an organism engaged with its environment. He maintains that understanding the development of the mind entails regarding the practitioner as a part of the larger system of relations and activity, feedback and response in which they work – an 'ecology of the mind'.[77] This is exemplified in his explanation of the system of processes that constitute the activity of a man felling a tree with an axe:

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[76] Andrew Pickering (2011) provides a survey of the ontological claims of early cybernetics, within which Bateson's work is situated, revealing what he terms a 'performative' account of the human mind as opposed to the conventional cognitive model informed by the rise of cognitive science, which brought about a move from cybernetics to artificial intelligence. Pickering (2011, p. 25) offers a 'performative ontology' for re-conceiving the human and reality, in which we can come to think of "[c]ybernetics as staging for us a performative epistemology, directly engaged with its performative ontology – a vision of knowledge as part of performance rather than as an external controller of it".

[77] Bateson (2011, p. 25) believes the totality of the system is conventionally eschewed in the commonly understood notion of 'self'. A person may believe, he claims, that "I cut down the tree", that they are the delimited agent who performed an act upon a delimited object. However, he contends that this

> Consider a man felling a tree with an axe. Each stroke of the axe is modified or corrected, according to the shape of the cut face of the tree left by the previous stroke. This self-corrective (i.e., mental) process is brought about by a total system, tree-eyes-brain-muscles-axe-stroke-tree; and it is this total system that has the characteristics of immanent mind. (Bateson, [1972] 2000, p. 317)

The processes involved in the mind of a practitioner, such as perception and cognition, are therefore immanent in a total system of relations (or wider network of processes) involving the organism and the material world. As such, Bateson declares, the mind should not be defined as an information processor that exists solely within the boundary of a practitioner's head, but rather as partially constituted by processes that extend into the material world by way of the organism's engagement with its environment. Bateson (1972] 2000, p. 317) designates the organism as comprising the processes of a "person plus environment". The organism is part of an organism-environment system, maintained through the movement and feedback of information that occurs throughout the system as a holistic entity, triggering the organism's 'self corrective' (or mental) processes that are 'brought forth' through such an engagement.

The later work of the philosopher Andy Clark (1997, 1998, 2008) is influenced by the systems approach; he further extrapolates from Bateson's notion of 'person plus environment'. Under the umbrella term of the 'extended mind', Clark and Chalmers' ([1998] 2010, pp. 30-31) hypothesis describes the active processes of mind and cognition as external to the material functioning of the body engaged with the environment. Focusing on bringing the functioning of brain, body and world

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belief is misleading; it maintains the false separation of the internal mental processes from the physical external world. This 'false belief' is outlined further by contemporary anthropology (Malafouris, 2008), which perceives it as a conflation of agency and ownership.

together, they foreground the unconscious information processes of mind and cognition as extending into the environment through situated actions, giving the example of a fish as a 'swimming device':

> The extraordinary efficiency of the fish as a swimming device is partly due, it now seems, to an evolved capacity to couple its swimming behaviors to the pools of external kinetic energy found as swirls, eddies, and vortices in its watery environment … These vortices include both naturally occurring ones (e.g., where water hits a rock) and self-induced ones (created by well-timed tail flaps). The fish swims by building these externally occurring processes into the very heart of its locomotion routines. The fish and surrounding vortices together constitute a unified and remarkably efficient swimming machine. (Clark and Chalmers, [1998] 2010, p. 32)

What Clark and Chalmers term 'active externalism' describes how an organism functionally 'exploits' external processes (both naturally occurring and induced through movement) in its (semi-autonomous) routines and functioning; the processes of its mind extend into the environment from the central point of an exploitative brain that assimilates the environment according its needs. By treating the brain as a dynamic system, Clark (2008, p. 102) situates it in a complex coupling, that includes complementary bodily and environmental processes, to arrive at a computational understanding of the mind. Expanding on this description of the human mind, he illustrates how the organism uses objects in the external environment (including language) as cognitive extensions; the plastic brain develops in a way that is complementary to the external structures that play a functional role in a unified and densely coupled 'information-processing' system (Clark, 2008, p. 32).

The coupling of the development of cognition (the plastic brain) with the external structures of the environment gives the body a specific role as a tool through which the environmental structures themselves are assimilated (though feedback loops in the flow of information) into the functioning of cognition. For Clark and Chalmers, the environment constitutes part of cognition when it is coupled to the plastic brain, via the instrument of the body, in the right way for the organism's activities. In this sense, it acts as an extension of the information-processing functions of higher-level cognition:

> The body is the primary tool for the intelligent use of the environmental structures … and acts as the mobile bridge that allows us to use the external world in ways that simplify and transform internal problem-solving. The body is thus the go-between linking these two different (internal and external) sets of key information-processing resources. The body's role in such cases is that of an instrument enabling the emergence of a new kind of information-processing organization (Clark, 2008, p. 23)

Clark and Chalmers' model of extended cognition, derived from systems theory, describes a functional, higher-level information-processing system that assimilates the environment through identifying with the body at a purely functional level. However, this focus on higher-level functioning and information-processing not only idealises the phenomenological aspects of the body, neglecting crucial bodily-based, multi-sensory processes, such as those described in the first three chapters, but also idealises the environment. As described earlier, in relation to Merleau-Ponty's phenomenology, the environment speaks through the phenomenology of the body – properties are 'brought forth' not *by* the organism for it to assimilate, but together *with* the organism through its movement in, and engagement with, the world. The environment does not stand before the organism, waiting to be assimilated; it emerges along with the organism's own activities.

In the field of the philosophy of mind, Stapleton and Thompson (2008), in particular, question the functionalism of Clark's extended mind theory, aligning it with traditional (disembodied) cognitive science in the way that it separates the phenomenological body from the processes of cognition. Stewart, Gapenne and Di Paolo (2010) approach Clark's contention head on, describing the articulation between 'low-level' embodiments (such as emotion) and 'high-level' cognitive processes through a reformulation of the paradigm of the first generation of cognitive scientists in terms of the philosophical theories of phenomenology and 'enactive models' of cognition and mind. Enactive models of mind are useful for the development of the current discussion in two crucial respects: not only do they recognise the importance of the phenomenological body in the study of cognition, but they also understand the role the environment plays as emerging alongside (and actively shaping) cognition and mind, as opposed to comprising a separate, purely functional domain of information that is assimilated by the organism.

4.4.2 *The enactive mind*

Enactive approaches to mind (Hutchins, 2010; Thompson, 2007; Varela *et al.*, 1993) follow the philosophical lineage of thought that begins with the work of cellular biologists Francisco Varela and Humberto Maturana (1979). This approach does not start from the question of whether cognitive processes extend beyond the boundary of the brain or the body (as active externalism suggests), but from the question of how a system is organised to sustain its own activity and 'bring forth' its own cognitive domain (Stapleton and Thompson, 2008). There is no hard and fast dividing line between internal and external *per se*; there is, rather, a self-sustaining system of relations. According to the enactive conception of mind in cognitive science, cognition and perception are grounded in the sense-making (phenomenological) activity of autonomous agents, which are 'autopoietically' coupled to an environment, and which actively generate and sustain themselves as part of a larger system of relations, enacting (or ‘bringing forth’) their own domains of meaning and value (Thompson, 2007; Varela *et al*., 1991).

According to Stapleton and Thompson’s (2008) summary of Valera’s position, an autonomous system comprises an organism and its environment, which are recursively dependent on each other for their generation and realisation as a network; furthermore, this network constitutes a system that both acts as a unit in whatever domain it exists and determines its domain of possible interactions with the world. Varela’s collaborative work with Maturana (1979) in cognitive science during the late twentieth century led him to the premise that an organism’s mind is an emergent property that is relational, being situated in a wider system involving both the organism and the environment. In such a system of relations, cognition, perception and environment emerge together, reciprocally, through the movement of the organism coupled to the environment. Varela’s enacted conception of mind (Varela *et al*., 1993) is founded on the notion of a cellular autopoietic system (Maturana and Varela, 1979) that is defined not by its individual components (as separate ontological or epistemological entities) but by the processes and relations between its components.

It is within the wider processes (or relations) of the autopoietic system that both the properties of the environment – what Varela calls ‘features’ – and the mind of the organism emerge together through the movement and activity of the organism:

> An autopoietic system is organized (defined as a unity) as a network of processes of production (transformation and destruction) of components that through their interactions and transformations continuously regenerate and realise the network of processes (relations) that produce them; and constitute it (the machine) as a concrete unity in the space in which they exist by specifying the

> topological domain of its realization as such a network. (Maturana and Varela, [1979] 1980, p. 13)

Valera understands an autopoietic system as a network of components and processes that reciprocally constitute each other through the constant self-organisation of the system as a whole (fig. 4). Raised to the level of a multi-cellular organism, what this system is able to do is structured by the abilities of the organism and its nervous system. The properties or features of the environment emerge – or as Varela terms it, are ‘enacted’ – out of the infinite possibilities for action that comprise the organism’s world; they are brought into being through its actions, and are also de-limited by the scope of its innate abilities. The enacted features of the environment, in turn, limit the (further) possible movements and actions of the organism, restructuring the organism’s possibilities for action, and thus the system continues to self-organise. For Maturana and Varela, an organism’s actions, abilities and mind, together with the properties of the environment, emerge or are enacted reciprocally, as a part of the self-organising autopoietic system. Crucially, neither the organism nor the features of the organism’s environment can exist outside of this reciprocity.

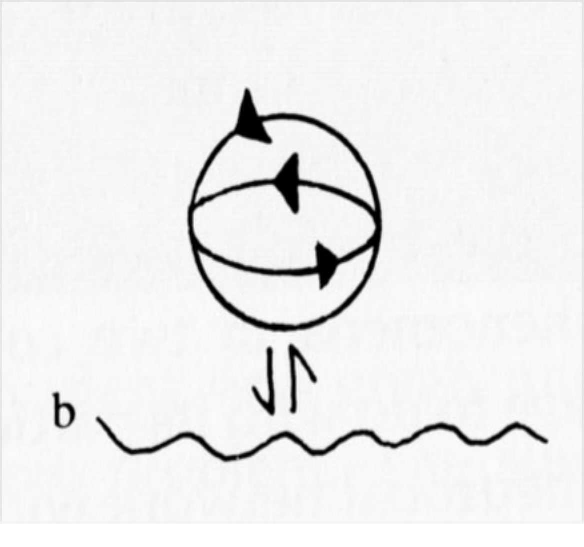

Fig. 4. An autopoietic system (Maturana and Varela, 1998 p. 180)

Notions of the extended mind (Clark, 2008; Clark and Chalmers, 1998) point to the importance of aspects of the environment only in as much as they can be functionally assimilated into the cognitive architecture of the organism; this environment is perceived to comprise the external processes that are part of a cognitive process that is rooted (primarily) in the plasticity of the brain. In contrast, enactive approaches, as Stapleton and Thompson (2008) illustrate, do not see cognition as an event that first happens inside an organism's head before extending outwards, but as a relational process that emerges from the relations between the organism as a whole and its environment. Crucially, rather than being assimilated *into* a cognitive system, the features of the environment are enacted *along with* cognition as part of an autopoietic system through the movement of the organism (in a phenomenological sense) coupled with the environment. Cognition, action and environment thus emerge reciprocally – the features of the environment, in this sense, are always *in* a reciprocal enaction of the mind.

4.4.3 *Non-representational or enactive perception*

The enactive account of mind has implications for the understanding of perception, which is also positioned as emergent in a self-organising organism-environment coupling. The enactive approach shows that the embodied perceiving subject does not simply represent the world they see as they stand before it, nor is their perception 'extended', in Clark and Chalmers' (2008) sense. Perception is 'enacted': it emerges through movement and activity and is, crucially, non-representational. In situating the development of mind in the relational processes of a self-organising autopoietic system, Varela (1993) proposes a model of 'enactive perception' that is underpinned by the movement of the organism coupled, autopoietically, with the ongoing development (or enaction) of the environment. Varela's model of enactive perception is philosophically grounded in Merleau-Ponty's account of existential stimulation[78] outlined earlier. Varela (1993, pp. 173-174) speculates that perception, cognition and environment emerge together, reciprocally, through the movement and action of the organism; they are 'brought forth' in the relational processes and components that constitute the autonomous or autopoietic system.

Varela (1993, p. 174) maintains that perception is not embedded in, or constrained by, the surrounding world; rather, it contributes to the very enactment of the surrounding world. The organism both initiates and is shaped by the environment; they are bound together in a reciprocal activity of specification and selection. The organism's perception and the environment are both enacted, 'brought forth' through the movement and activity of the organism coupled with its environment. Varela's concept of enactive perception consists of two central points: perception consists of perceptually guided action, and cognitive structures emerge from the recurrent sensory-motor patterns that enable action to be perceptually guided.[79] The movement of the body in the world structures and guides both perception and cognition, which enact the environment through their interaction with it. In this sense, environmental features, perception and mind are enacted (or emerge) together, and the features or properties of the (infinitely possible) world are ‘brought forth’ or enacted through the perceptual guidance of action.

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[78] Varela cites Merleau-Ponty ([1942] 2011, p. 13) as follows: "The properties of the object and the intentions of the subject ... are not only intermingled: they constitute a new whole. When the eye and the ear follow an animal in flight, it is impossible to say 'which started first' in the exchange of stimuli and responses. Since all movements of the organism are always conditioned by external influences, one can, if one wishes, readily treat behaviour as an effect of the milieu."

[79] Varela demonstrates 'perceptual guidance by action' in his discussion of Held and Hein's kitten study, in which: "[they] raised kittens in the dark and exposed them to light only under controlled conditions. A first group of animals were allowed to move around normally, but each of them was harnessed to a simple carriage and basket that contained a number of the second group of animals. The two groups therefore shared the same visual experience, but the second group was entirely passive. When the animals were released after a few weeks of this treatment, the first group of kittens behaved normally, but those who had been carried around behaved as if they were blind: they bumped into objects and fell over edges" (Varela *et al.*, 1993, p. 175).

Reframing Merleau-Ponty’s philosophical insights in biological terms, Varela recognises that all ‘stimulations’ (sensory-motor patterns) are only possible through the movement of the phenomenological body as autopoietically coupled with the environment. As such, what is termed ‘visual’ perception can be more fully understood as perceptually guided by the action and movement of the entire body coupled with the emerging world – that is, it is embodied, and this body is itself coupled with the environment. Varela’s work provides a vital, ‘non-representational’ account of enactive visual perception, as opposed to the ‘representational’ psychological accounts of Gombrich and Arnheim outlined in Chapter Two. As Varela (1993, p. 175) says, “objects are not seen through the process of a visual extraction of features of a pre-existing world, but rather as (virtual) ‘features’ of the world which are enacted by the perceptual guidance of action”. What is perceived is not ‘recovered’ or ‘retrieved’ from an external world, but is emergent; it is structured and guided by the actions and movements of a body that is reciprocally coupled with the environment.

The emergent or enactive character of visual perception is described at length in the work of the philosopher Alva Noë (Noë and Thompson, 2010; Noë, 2004), who describes the sensory-motor action of the body as functioning within visual perception itself. For Noë (2004, p. 1), perception is not “something that happens to us, or in us. It is something we do … The world makes itself available to the perceiver through physical movement and interaction … we enact our perceptual experience; we act it out”. Noë focuses on visual perception, arguing that vision is rooted in the sensory-motor contingencies underpinning the body’s ability to act, and it is through these contingencies that what is perceived in the world is enacted. Noë's enactive account of perception draws on a number of traditions in the fields of philosophy (Merleau-Ponty, 1948, 1962), psychology (Gibson, 1979) and cognitive science (Varela *et al.* 1991), which emphasise perception as an activity and focus on the touch-like (sensory-motor) character of vision.

Working within the domain of neuroscience, Noë (2004, pp. 36-40) recognises the limited capacity of the physical structure of the eye to experience the richness and detail of the world: the eye's 'saccade' motion (shifting focus two or three times a second), the blood vessels and nerves positioned in front of the retina's receptors, colour blindness in the parafoveal region and numerous blind spots are all inhibiting factors. For Noë (2004, pp. 117-118), visual perception is therefore dependent on the sensory-motor knowledge of the entire body acting in the world – a knowledge that is practical, based on what it is possible to do, rather than purely propositional. The unattended or occluded details of our visual experience are 'perceptually present' exactly because we have a sensory-motor experience of the environment around us. Giving the example of a cat sitting behind a fence, Noë (2004, p. 60) asks: "You have a sense of the presence of the cat even though, strictly speaking, you only see those parts of the cat that show through the fence. How is it that we can in this way enjoy a perceptual experience of the whole cat?" Rather than giving the conventional answer to the question, according to a science of the image, that the brain fills in the gaps, Noë argues that such perceptually rich detail in the experience of the world is 'perceptually present' precisely because of the sensory-motor abilities and knowledge of an enacted perception:

> The detail is present – the perceptual world is present – in the sense that we have a special kind of access to the detail, an access controlled

> by patterns of sensory-motor dependence with which we are familiar. (Noë, 2004, p. 67)

The details or content of perceptual experience, according to Noë, are 'virtual', by which he means that the unseen environmental details (such as the far side of a tomato, the occluded portions of a cat behind a fence, those parts of the world that are hidden to the eye by its blind spots) are present virtually, in the sense that they are experienced through a skill-based sensory-motor perception that goes beyond visual stimuli alone. As these features are present through a sensory-motor experience, they have a perceptual presence as being 'available' rather than represented or 'filled in' by the processes of the brain.

The enactive conceptions of mind and perception surveyed above have implications for an understanding of how visual materials such as a painting 'come to mean' within a non-representational ontology. An enactive approach to mind sees the relationship of the movement of the embodied artist with the development of the image, not as a matter of 'distributed' or 'extended' causes, but rather what Warburg calls the 'image' is itself enacted along with the mind, perception and environment as the painter paints, 'bringing forth' a world through the very activity of painting. Returning briefly to Merleau-Ponty (1964), we can see that when an artist depicts a figure (or form), they are 'making visible' the invisible forces between their multi-sensory body and the wider texture of the environment as they paint – an intermingling of bodily intentions (actions) and environmental properties. In this respect, it cannot be maintained that the image is purely the result of a representation of the world in the mind of the artist who stands before it, assimilating it into the mind's functioning, but as a measure or trace of the movement and activity that 'brings forth' the emergence or enaction of an entire multi-sensory reality, intermingled with the (reciprocally emergent) properties or features of the environment.

4.5 The 'enactive image'

The study of how an image's meaning is held in the traces of the bodily and environmental processes that underpin its creation is well represented in the domains of anthropology and cognitive archaeology. In contemporary social and cultural anthropology, Ingold ([2000] 2010), for example, has questioned the inherent ideology underpinning modern Western thinking[80] regarding the study of images, rejecting the notion held across many academic disciplines[81] that depictions are the product of a symbolic (representational) reflection expressed in painting.[82] For Ingold, who espouses the writing of thinkers such as Bateson (1979), Merleau-Ponty (1961) and Deleuze (1981), human creative activity is not separate from the natural environment; there is no division between the 'ecology' of the environment and the 'art' of a practitioner, they are intertwined.[83] Ingold ([2000] 2010, p. 130) argues that the axiomatic division of human activity and environment, held across many discourses in the humanities, rests upon a dualism between culture and nature, which in turn rests upon the modern conviction that a work of art is proof of a uniquely human capacity for expression and creativity.

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[80] Ingold's reference to what he terms 'modern thought', situated in his wider thinking, follows the tradition of 'actor-network theory', which is more fully explained by a survey of the work of Bruno Latour. In *We Have Never Been Modern* (1992), Latour reveals how modernity arises directly out of a bifurcation of nature, which he defines as the two great divides of modern thinking: (1) the absolute separation of human culture from non-human nature, and (2) the absolute separation of present (modern man) from past (primitive man). This bifurcation Latour believes forms the 'constitution' of modern thought. According to Latour, this 'modern constitution' arises primarily out of the sense of the sharp separation of nature and (human) culture, and out of the forms of knowledge they produce: nature gives rise to science, the knowledge of how things are in themselves; culture produces the social sciences and the discourses of morality, politics, psychology, etc. (Connor, 2004, p. 7). This modern split thus carves the world up into distinct human subjects and non-human mechanical objects (Harmon, 2010, p. 62).

[81] This conventional view is seen in the disciplines of archaeology, anthropology and art history and theory (Ingold, [2000] 2010, p. 111).

[82] This belief is maintained through the maintenance of the axiom of the separation of nature and culture that finds its source in Western modernity (Ingold [2000] 2010, p. 111).

[83] Alfred North Whitehead refers to the 'bifurcation of nature' when speaking of such a division between nature and culture – that is, the separation of an internal metaphysical world from an external physical world. This was the philosophical and scientific landscape during the modern period, which demanded that nature be understood in terms of two systems of reality (Whitehead, [1920] 2004, pp. 30-1). One comprised entities such as electrons, which are the subjects of physical science, a reality that is there to 'know'. The other was the reality of the mind, which produces the awareness of physical nature, its metaphysical representation. The meeting point of these two realities was the mind. This

Ingold ([2000] 2010, p. 112) maintains that once the axiomatic views of Western modernity – in particular the reliance on representational models of perception, cognition and artefacts – are challenged, 'representational art' can "be understood as ways not of representing the world of immediate experience on a higher, more 'symbolic' plane, but of probing more deeply into it and of discovering the significance that lies therein". Drawing, carving, painting and depicting are, for Ingold, not a matter of representing a world, but a process of perceptually 'thinking' a world through the very activity of depiction itself, as part of a wider developmental system involving practitioner, materials and environment. As such, Ingold describes a depiction as an emerging understanding between body, perception and the world that is acquired through an ongoing developmental practice that is interwoven with the environment. The depiction cannot be separated from the environmentally embedded developmental practice through which it is produced.

The study of a depiction as emergent within an environmentally embedded developmental practice takes us to the heart of what has been termed 'material engagement theory' (MET) (Knappett and Malafouris, 2008; Malafouris, 2007, 2010, 2013) in contemporary cognitive archaeology. This theory aims to "provide an integrated archaeological perspective concerned with the interactions through time between cognition and material culture" (Malafouris, 2013, p. 35). It attempts to re-

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bifurcation separates facts of knowledge (concerning external nature) discovered by science from subjective internal representations caused by the facts of external nature: for example, the perception of a fire's colour and warmth, on the one hand, and the molecules and electrons that caused the feeling, on the other (p. 32).

introduce the material aspects of the development of human cognition, specifically movement and activity in the material world, into the study of the development of the human mind. Malafouris' approach is of particular importance in this regard as it is underpinned by two central theoretical tenets concerning human cognition and creative activity: the incorporation of enactive models of mind and cognition into the study of archaeological artefacts, and the recognition of the agency of materials (the material properties of rock, clay and cultural artefacts) in the development of cognition through movement and activity.

Applying MET to the study of symbolic depictions (such as Palaeolithic imagery), Malafouris (2007, 2013) posits that before and beyond any 'representational' act, the activity of depiction itself (as a developmental practice) 'brings forth' a world at the same time as perceptually thinking it. Critically, in moving beyond a representational model of depiction and incorporating enacted models of mind drawn from contemporary cognitive science and the philosophy of mind,[84] Malafouris focuses on two aspects in the study of an enacted depiction. First, the very activity of creating cultural artefacts both precedes and follows the 'bringing forth' of a new way of perceiving, thinking and acting.[85] Secondly, this 'performative' ontology of the image or depiction should be understood as a 'platform' for perception and cognition to reflect and gradually come to terms with themselves. Malafouris (2007, 2013) terms the processes that underpin an enacted conception of depiction – how such a depiction 'comes to mean' – as 'enactive signification'.

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[84] In particular, the work of Francisco Varela (1979, 1993), Alva Noë (2004) and Rodney Brooks (1991)

[85] Malafouris utilises the thinking of Daniel Dennett. His notion of 'active visual thinking' proceeds from the concept of a two-way ontological process of tool use and intelligence provided by Dennett. Tool use is a two-way sign of intelligence – not only does it require intelligence to recognise and maintain a tool (let alone fabricate one), but a tool confers intelligence on those lucky enough to be given one (Dennett cited in Malafouris, 2007, pp. 99-100).

4.5.1 *Enactive signification*

It is important to clarify that Malafouris' (2010) enacted conception of a depiction takes a neuro-archaeological approach,[86] studying a depiction in terms of the traces of the development of neurological, biological and cognitive structures, and the abilities of the plastic brain that leaves its 'signature' in the archaeological object under investigation. This neuro-archaeological approach underpins Malafouris' model of 'enactive signification', and allows him to suggest that the activity of drawing or painting should be seen more as an active 'probing' or 'bringing forth' of a world, which emerges (or is enacted) through the very activity of probing, and which includes the material world.

Within such an enactive framework, depictions are understood, not as representing a world of immediate experience to be read on a 'higher-level' symbolic plane of cognition, but as 'bringing forth' a world through an emergent sensory-motor engagement with it, leading to the emergence of a symbol – an activity of 'perceptual learning'. By foregrounding the processes of dynamic sensory-motor engagement in the study of depictions (in reference to Palaeolithic images), Malafouris is able to declare that before and beyond any representational act (the fixing of an image as a symbolic artefact) there is the 'bringing forth' of a way of acting and being in the world that is simultaneous with thinking about it:

> [B]efore and beyond representation, they first 'bring forth' a new process of acting within this world and at the same time as thinking

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[86] Malafouris (2010) describes how the emerging field of 'neuroarchaeology' has taken the recent developments in brain and cognitive sciences and applied them to the study of human artefacts in archaeology, recognising that they provide a better understanding of the visible traces and signatures of the development of biological and neurological structures found within such artefacts. Malafouris' (2010, p. 49) approach, in particular, focuses on "questions and problems that emerge at the interface between brain and culture over the long-term developmental trajectories of human becoming. Neuroarchaeology aims at constructing an analytical bridge between brain and culture by putting material culture, embodiment, time and long-term change at center stage in the study of mind."

> about it. This thinking however, should not be understood – at least not in the first instance- as that of 'higher level' abstract symbolic type. This thinking should be understood in the more basic 'lower' sense, namely as a new form of active sensory-motor engagement. … It should be understood as a new form of perceptual learning on a par with the 'bringing forth' or 'bringing out' of a figure by embellishing the natural formation of the rock. Or, alternatively, a practice-induced change in the human ability to perform certain 'unnatural' perceptual tasks. (Malafouris, 2007, p. 295)

In moving beyond the privileging of a symbolic 'higher' level, in the first instance, to a 'lower' level of sensory-motor engagement (as theorised by Noë), Malafouris (2007, p. 295) reveals two important implications for the study of how depictions such as those of Palaeolithic imagery 'come to mean': firstly, seeing and perceiving are a form of skilful active engagement, of acting in and 'bringing forth' a world, and secondly, the role of a depiction is that of a "continuous prosthetic part of this probing mechanism and thus a cultural extension of the visual brain".

To demonstrate the study of a depiction as a 'signature' or trace of the development of ongoing biological, neurological and cognitive abilities, Malafouris provides a reading of a selection of Palaeolithic imagery – depictions of a rhinoceros from the caves of Chauvin and Lascaux (fig. 4a) – demonstrating how these images can be understood as a prosthetic part or a 'signature' of the 'bringing forth' of a world. The depiction itself provides a 'scaffolding device' to enable human cognition and perception to gradually become aware of themselves – that is, to think perceptually through sensory-motor engagement. Malafouris demonstrates the capacity of a depiction to be both a trace of the development of human cognition and a 'platform' for the ongoing development of cognition through tracing the basic gestalt patterns, such as similarity and proximity, found in early cave art (fig. 4a). The presence of these visual gestalts in images of this kind can be understood, from a neuroarchaeological standpoint, as a 'signature' of the development of the underlying mechanisms of a dynamic and emergent model of human perception and cognition during that period, a 'signature' that gradually becomes transformed into an object *for* perception and contemplation through the process or activity of depiction itself – what Malafouris sees as a process of 'active visual thinking'.

Figure 4a has been removed due to Copyright restrictions.

The revelation of these gestalt patterns in Palaeolithic imagery requires a shift in focus from the representational conception of *what* the image means symbolically to that of the 'activity of imaging' itself, asking *how* it 'comes to mean'. Malafouris (2007, p. 299) studies the processes that underlie how an image 'comes to mean' through tracing the images' most salient perceptual and cognitive features or gestalts, providing new epistemic access to the development of the perceptual and cognitive architecture, the material extension, of the visual brain.

Malafouris believes what he calls 'enactive signification' is part of the ongoing development of the system of neurological, biological and cognitive abilities. This theoretical understanding provides a contemporary enacted approach to depiction that moves beyond its study as a symbolic representation to a fuller recognition of an image as the emergence of the salient features, in visual form, of distributed ongoing and developmental processes that extend across an organism-environment system. Malafouris' enactive signification provides a strategy – an enacted model of mind and perception that focuses on tracing the processes that underlie a depiction's development – by which to understand a depiction as 'coming to mean'. Crucially, Malafouris' (2007, pp. 298-289) enacted approach focuses attention on *how* an image ‘comes to mean’ (prior to becoming a symbol), rather than *what* it means on a ‘higher’ symbolic level, thus revealing the processes or stages of an image’s emergence within a wider enacted developmental system.

Malafouris’ (2007, 2013) theory of the enactive development of depictions has four key stages that are particularly pertinent for the rest of this thesis:

(1) Formation: a dynamic form of active sensory-motor engagement (including the agency of the environment) that emerges through the very activity of depiction itself, which becomes ‘fixed’ in the image produced.

(2) Reception: the image created as an object (or ‘platform’) for perceptual contemplation to become aware of itself by experiencing its salient gestalt features through its dissemination in the wider culture.

(3) Extension: the emergence of a new enacted visual intelligence, a new way of acting in the world, built upon this ‘platform’ through the experience and perceptual contemplation of the image.

(4) Further extension: the new way of acting in the world becomes ‘fixed’ in a new activity of formation (in images), built upon the new (enacted) visual intelligence.

The cycle then repeats itself.

4.5.2 *Enactive depiction*

The anthropological and archaeological perspectives of Ingold and Malafouris provide an enactive account of depiction that analyses more fully how a depiction ‘comes to mean’ in the activities of the practitioner coupled with the environment. There are two points for reflection that can be derived from these approaches that are particular pertinent to the current study, which, while allowing for a more focused discussion of the role of the phenomenological body and the environment in the study of the creation of images and other visual materials, require further attention.

First, Malafouris' concept of enacted signification provides a valuable approach for the further study of a depiction as emergent within, and impacting on, the development of the enacted cognition of the artist or practitioner who, coupled with the emergent properties or features of the environment, creates the work. This approach also enables a discussion, central to this thesis, in which the depiction created is also experienced by, and implicated in the development of, other enacted minds. In this respect, the enacted account of depiction offered by Malafouris can also be extended to include an 'active' perceiver of the depiction (as argued in the first three chapters) as a reciprocal interaction and modification. In this sense, the depiction is studied as a part of a self-organising enactive system that always includes other enactive minds, including that of the inquirer who co-constructs what is being studied, bringing to bear a historically contingent way of acting within the world that re-shapes what is being experienced.

Secondly, enactive signification provides a framework in which other important dimensions of the phenomenological body, which this thesis argues underpin the processes of figuration, can be investigated: the multi-sensory, imaginary and experiential. As Varela's (1993) account of perceptual guidance by action shows, visual perception can be understood in such a framework as enacted in the movement of the body. However, Varela (1993, p. 175) describes enacted perception primarily in terms of a visual bias, declaring: "Objects are not seen through the process of a visual extraction of features of a pre-existing world, but rather as (virtual) 'features' of the world which are enacted by the perceptual guidance of action". Although Malafouris' work uses an enacted model of mind drawn from contemporary cognitive science (primarily, the work of Varela and Noë), it does inherits the visual hegemony of cognitive science. Its focus on the movement of the body as underpinning the development of human cognition, however, highlights the importance of a multi-sensory enacted experience, and this is the subject of the remainder of the chapter.

4.6 The multi-sensory 'enactive figure'

As argued earlier in this chapter, Merleau-Ponty ([1961] 1964, p. 164) demonstrates in his work, *Eye and Mind*, that he fully recognises the ideological recourse to the visual: for him, the word 'image' is tainted by the modern belief that a drawing is a tracing or copy, and that the image behind such a drawing belongs among the artist's private mental 'bric-a-brac'. According to Merleau-Ponty, the painter's activities give a visible existence to what is believed to be invisible: sound, touch, taste, gravity, energy and air. He declares that the eye lives in the multi-dimensional, multi-sensory 'texture' of reality (p.166), in which no one sense modality can be privileged. In this view, painting is a making visible of multi-sensory and multi-dimensional invisible environmental energies.[87] The 'mental image', argues Merleau-Ponty, is of the same order: it too must be multi-sensory, making visible the wider texture of the existential and multi-sensory human experience that constitutes it.

Highlighting this element of Merleau-Ponty's writings adds an overlooked multi-sensory aspect to Varela's (1993, p. 175) 'perceptual guidance by action', itself inspired by Merleau-Ponty. By maintaining that all stimulations are only possible through the movement of the body, Varela's concept of enacted perception can be rethought: visual perception is always guided and supported by the action and movement of the whole multi-sensory body coupled with the world. If perception is guided and structured by the movement of the body coupled with the world, then visual perception is also structured by the rest of the multi-sensory body – that is, by the entire multi-sensory enacted dimension of experience. Such a re-working of Varela's thinking, situated in a re-reading of Merleau-Ponty, provides a wider philosophical context for his enacted model of perception, in which 'objects' can be understood as perceived, not through the visual extraction of features of a pre-existing world, but through features of the world that are enacted by the multi-sensory perceptual guidance of action.

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[87] Merleau-Ponty's *Eye and Mind* can be seen as an extension of his earlier work *The Visible and the Invisible*, in which he builds an ontology of being that was inspired by the philosophy of Henri Bergson (1911). In this ontology, matter is seen as neither wholly physical nor wholly metaphysical, neither mind nor substance. Instead, Merleau-Ponty speaks of the visible as being the manifestation of everything that is invisible, a removal from the metaphysics of substance to the metaphysics of process and force. This idea became the central focus of Deleuze's (2004) process-orientated 'material-force' ontology, which was also inspired by Bergson's writing.

4.6.1: *From figuration to the 'figural'*

Merleau-Ponty's work has been extended in the writing of Deleuze ([1981] 2003), in particular. Developing Merleau-Ponty's survey of modernist art, Deleuze suggests that the act of painting for artists such as Millet, Cezanne, Bacon and Van Gogh was, in some respects, the process of capturing 'energetic' forces. This represents, for Deleuze, the elementary task of painting itself: to render visible invisible forces (pp. 56-57). Painting, for Deleuze and Merleau-Ponty, is not the visual extraction of features that pre-exist within the environment, but the rendering visible of invisible, multi-sensory features that emerges through the very process of painting. For Deleuze, painting is not a representational act, it does not narrate or illustrate, it is a process of multi-sensory and multi-dimensional becoming.

Deleuze's formulation of modern painting leads to a rejection of representational notions of figuration, found primarily within the study of art history, that remain within the realms of the illustrative and narrative. As Daniel W. Smith (1997, pp. 41-42) makes clear, the term figuration tends toward the relating of the image either to an object that it supposedly illustrates, focusing upon what is recognizable losing the immediacy of sensation that is expressed within, or to the images relation with other images in the painting, revealing narrative links between images. Deleuze ([1981] 2003, p. 3-5) instead insists on the concept of the 'figural', following Francis Bacon, based upon the premise that the painting is always a sensation, an affective expression of an environment as expressed through a phenomenological body rendered visible through movement. The 'figural' is not a representation of an object, narratively or illustratively, as an extraction from the environment, but rather an expression, or capturing, a bringing forth of certain forces of the object itself rendered visible within the figure. The figurative functions at the level of that which is already known, the 'figural' is the production of worlds (O'Sullivan, 2010, p. 255).

Deleuze's concept of the 'figural' involves not the study of figures with other figures but the multi-sensory becoming of the figure captured within the paint, a study of what can be done with paint on its own terms. Deleuze reveals the visible rendering of forces within painting as not exclusively *of* the visual; within the writing of Cézanne, painting has the task of "rendering visible the folding force of the mountains, the germinating force of the seed, the thermal force of the landscape" (p. 57), and as he saw with Van Gogh, it was even a matter of inventing forces to be rendered, such as the forces of the germination of a seed. Where Deleuze suggests that 'figural' is most evident within more abstract painting (particularly that of Francis Bacon) ([1981], 2004, p. 11), he reveals how more classical painting can also be read on similar terms through the works of painters such as Giotto and El Greco.

Particularly within the work of Millet, Deleuze (ibid) finds that what was important for the artist was not the depiction of the figurative content itself – the peasant carrying a sack of potatoes or a pile of brushwood (fig. 4b) – but the more profound, invisible force of the weight of those objects.[88]

Figure 4b has been removed due to Copyright restrictions.

Merleau-Ponty's and Deleuze's examination of environmental forces such as gravity, thermal forces, germination and weight, as made manifest in the details of the work of some modernist artists, provides not only a non-representational concept of the 'figural' to substitute for the representational figurative, but also provides a multi-sensory extension to the 'salient features' of the enacted models of depiction described by Malafouris (2007, 2013). In this respect, by adopting the phenomenology of Merleau-Ponty and enacted accounts of depiction, the reading of Warburg's 'animated accessory' (the details of which are animated in part by bodily experiences immersed in environmental conditions and causes, such as the wind[89]) undertaken in the previous chapter can now be read as 'figural', that is, reframed as an 'enactive accessory'.

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[88] As Deleuze reveals ([1981] 2003, pp. 56-57) that when Millet was criticised for painting peasants who were carrying a sack of potatoes or wheelbarrow of manure in a style classically reserved for the Gods, the artist responded by saying that the weight common to the two objects was more profound than any figurative distinction. According to Deleuze, Millet, as a modernist painter, just like Cézanne and Van Gogh, was striving not to represent the world, but to render visible the 'distributed forces' that culminate in sensations such as gravity and weight in the details of the painting itself.

[89] Warburg's dissertation on Botticelli is widely cited as the primary example of his notion of 'animated incidental detail' (Rampley, 1997, p. 42-3). His study of the *Birth of Venus* focused on the analysis of Venus's flowing, windswept hair, which he compares to similar details in the *Primavera,* in the dress of the nymph Flora. For Warburg, this incidental detail was a manifestation of the 'pathos formula' that fashioned it, and which accounted for the way the depiction of these scenes differed from earlier renderings.

4.6.1 *The 'enactive accessory'*

In the context of Merleau-Ponty's phenomenology and Deleuze's concept of the becoming of the 'figural', Warburg's 'animated accessory' can be understood as rendering visible the invisible, multi-sensory, existential forces, such as wind and gravity, as well as the traces of the philosophies, beliefs, practices and desires that underpin an historically contingent 'pathos formula'. The environmental processes revealed in these details can be analysed in terms of the 'salient features' of Malfouris' (2007, 2013) enactive account of depiction – that is, as 'signatures' of the ongoing development of the 'material engagement' that underpins the development of an enacted cognition. This 'signature', however, is more than just the material extension of a visual brain. If placed in the context of Merleau-Ponty's thinking, it can be seen as a material trace of the enactment of an entire multi-sensory reality, which includes, following Warburg, the philosophies, beliefs and practices of a specific period.

The figure or depiction – as a trace or expression of the self-organising processes underpinning movement and activity that extend throughout the body, the environment and other bodies in the environment – can be viewed as a stage or 'platform' in a larger dynamic process of enactive signification, or the making visible ('bringing forth') of a moment in the larger ongoing process of the constant enactment of multi-sensory reality. Crucially, this enactive signification includes a 'material engagement' with the emergent properties or features of the environment that are 'brought forth' through, and made visible in, the depiction by the practitioner's movements. The details of the figure depicted, its 'salient features', play an active, constructive role, not only in the emergence of the mind and perception of the practitioner who creates them, but also (as argued in Chapters Two and Three) in the ongoing development of the enacted mind(s) of the perceiver(s) of the image, who play a reciprocal co-constitutive role *through* the inquiry itself. Such accessories do not pre-exist to be discovered *per se* they are, rather, brought forth through the very activity of looking for them.

What is now understood as an 'enacted accessory' will be used to re-read Gombrich's reading of Warburg's analysis of the details of Manet's *The Luncheon on the Grass* to reveal how environmental processes are expressed in its depiction of human figures, and how the images 'comes to mean' through this expression. This re-reading is illustrative of an enactive account of the 'animated accessory', revealing the enactive processes of mind, perception and depiction that extend into the organism-environment coupling. Within the context of the co-constructive *inquiry* of the viewer, the expressive role of the environment (the focus of this chapter) is foregrounded and is revealed (or rather brought forth) within the work as emerging alongside the enacted mind of the artist, 'animating' the figures depicted.

4.7 The 'enactive accessories' of *The Luncheon on the Grass*

As Gombrich (1970) describes, Warburg's study of the development and the endurance of a specific depiction of a group of river gods and a nymph, from a relief of *The Judgement of Paris* on a Roman sarcophagi (in the third century AD) via the Renaissance (*The Judgement of Paris* by Marcantonio Raimondi) to its modern depiction in Manet's *The Luncheon on the Grass* (c.1863), revealed a set of stylistic transformations in the details of the figures, in which he was able to trace the development of a historically contingent human perception and imagination. As seen in Chapter Three, Warburg was able to show – through his study of the figures' details as animated by 'energies' such as weight and confidence – that in each reformulation of the group, the whole psychological dynamic of the human type represented is utterly transformed.

The change in the physical weight and confidence of the figures' postures, as well as their gaze – the human figures in Manet's depiction attend to the pastoral, the personal and the viewer rather than the divine goings-on of the gods on Mount Olympus – are animated by a dynamic 'pathos formula' tied to the wider philosophies and beliefs of the period (fig. 4c). Warburg understood the 'pathos formula' underpinning the figures depicted in Manet's *The Luncheon on the Grass* as a way of acting upon the world, particular to the eighteenth and nineteenth centuries. The Olympic divinities had ceased to be regarded as the primary cause of natural events. It is this shift in causality to a secular view of the world that suggests the larger role the natural environment plays in the animation of the details of the figures, and provides an example of how the environment is expressed in such a work.

The importance of the role of the environment in shaping the human figures depicted, as part of the pathos formula, is present in the experience of the painting through the very absence of environmental detail (fig. 4d). The human figures' details appear to be animated, in part, by the environment, through their grounded postures and their weight, suggesting comfort and ease, yet the environment itself is ambiguous, flat, 'unfinished', not entirely defined. The ambiguous, awkward and 'unfinished' treatment of the work, and the broad brushstrokes which reduce the contextual detail of the environmental objects that surround the figures (as outlined in Chapter One), take on a different character in an enacted model of perception. In this context, the image does not represent the world as it stands before the artist, but is concerned with making visible the invisible, multi-sensory texture of the environment, through the very activity of depicting it, to the perception of both artist and viewer. Such details can be seen as a trace of the activity of ‘bringing forth’ a world through painting.

Figure 4c has been removed due to Copyright restrictions.

Figure 4b has been removed due to Copyright restrictions.

What Gombrich (1970) suggests Warburg calls the ‘sterilised’ aspects of the environmental context depicted by the painter were described in Chapter Three as an ‘aesthetic sterilisation’, resulting in an ambiguous, strange or unusual form; that is, they comprise a stage or moment in the ongoing transformation of the details of an image (in this case, the environment) within an emerging ‘pathos formula’. In Merleau-Ponty’s terms, the very depiction of the environment in such an ‘unfinished’ way always makes visible the invisible environmental conditions that impact on the gestures of the artist as they paint; it is a way of coming to understand how reality itself ‘becomes’. The ‘sterilisation’ of the details of the environment in the painting comes to express or reveal the active and energetic texture of the environment as part of the emergence of reality for both the artist’s and the viewer’s perception as together they participate in the same ‘pathos formula’ or way of acting in the world. Adopting Noë’s (2004) enactive conception of perception, the depiction of the environment, although seemingly ambiguous and unfinished- almost absent, can be seen as perceptually present in the experience of the work. The environment is expressed through its very absence in the enacted perceptual experience of the viewer, who is equally part of the organism-environment system. Such details (or lack of) thus ‘come to mean’ as an expression of the ongoing self-transformation of an enacted reality that includes the artist, the viewer's perceptual experience and the active and responsive environment.

Whereas Gombrich's reading of Warburg's analysis of Manet's painting points to the depiction of the human figure as representing a 'coming to terms with' a secular reality (the gradual 'sterilisation' of the role of divinities by the rise of the natural sciences), such details, as part of an enacted human mind, 'come to mean' not through a process of representation, but as a part of a much larger and deeper process of enactive signification (a sensory-motor process) through the very activity of depiction, which is a way of acting or engaging with the world. As such, this transformation of the details of the figures cannot be wholly attributed to the *idea* of secularisation alone, rather this idea of secularisation is itself enacted within a larger process of self-organisation or way of acting in the world. The idea of secularisation is a reminder of the immersion of the human body within an active and responsive environment.

The details, style and formal aspects of the figures (human and non-human) depicted are, in this sense, an expression of the conditions through which the notion of secularisation is able to emerge, part of an ongoing, changing engagement with the environment. As the features or properties of the environment are enacted or 'brought forth', together with mind and perception, through movement, they co-constitute the enaction of human mind and perception. The very 'pathos formula' that sterilises the agency of the gods, through allowing the natural sciences and secularisation to exist, is itself an emergent property, part of an organism-environment system or way of acting in the world that 'brings forth' the environment at the same time as the activities of contemplating and depicting it.

4.8 Conclusion

To recognise how images 'come to mean' in the activity and movement of a phenomenological body is to also recognise that the phenomenological body is itself open to, and immersed in, an active and responsive environment. Whereas the thesis thus far has investigated the phenomenological depth in how images 'come to mean', there is a further depth to the phenomenological body itself that extends into the active and responsive texture of the environmental conditions that underpin the movement of the practitioner. These environmental conditions constitute a necessary part of an historically contingent organism-environment system, in which the phenomenological body's movement, perception and cognition emerge or are enacted. In such a framework, the environment matters for an understanding of how images 'come to mean'.

The study of how images 'come to mean' in an enacted model of perception entails treating visual materials as non-representational; that is, in the terminology of the phenomenology of Merleau-Ponty, not as rendering the visible world as it stands before the artist, but as rendering visible (or give a visible expression to) the invisible, multi-sensory, mnemonic, imaginative and environmental forces that underpin human activity. The details of the style of visual materials are an expression not of a way of acting upon the world, as Crowther (2012) described, but a way of acting *within* the world; they express this multi-dimensional activity. In the context of anthropological and archaeological approaches to the study of enactive images such as Palaeolithic imagery, such an approach begins by asking not *what* an image means (symbolically) but *how* an image 'comes to mean': what does the phenomenological, bodily and environmental processes allow a work to symbolise as emergent in an organism-environment coupling?

Although the features or properties of the environment that co-constitute an enactive conception of mind and perception are invoked in the work of scholars such as Varela (1993) and Noë (2004), they remain somewhat idealised. While Valera (1993), in particular, recognises that the features of the environment are enacted alongside perception and cognition, he does not consider the properties or features in themselves; he focuses on human phenomenology, movement and engagement. As far as Varela is concerned, environmental processes matter in the enaction of mind and perception, but the environment itself is forgotten.

In this respect, Malafouris' (2013) work in cognitive archaeology provides a useful bridge, enabling a discussion of such features or properties through foregrounding what he terms the 'material agency' of the artefacts and materials that shape human activity through movement. Malafouris recognises the importance of the material dimensions of matter underpinning human creative activity in his study of the development of cognition, such materials manifest an agency that shapes cognition through engagement; clay, wood, rock and other materials have properties and resistances that play an active role in the emergence of mind and creative activity.

As Varela (1993) and Merleau-Ponty (1942) both suggest, the features or properties of the environment are also enacted out of what is made possible for the organism through their movement and activity. As they are enacted along with mind and perception through movement, they are inherently 'unstable', because, as part of a self-regulating autopoietic system of relations, they frequently change in character. In this sense, the material agency of the environment (the resistances of clay, wood, and rock) is also enacted ('brought forth') as features of the environment by means of movement and activity that are historically contingent to the developing autopoietic system. The final chapter in the main body of this thesis proceeds from this insight, drawn from the foregoing synthesis of thought, and argues that just as images ‘come to mean’ an expression of the phenomenological body of the artist and viewer, the expressive nature of an image also extends to the affective domains of the matter, materials and ‘features’ of the environment in which the phenomenological body is immersed, develops and functions.

Chapter Five

The 'Affective' Dimensions of Materials and Matter

The enactive accounts of mind and depiction surveyed in the previous chapter focused primarily on the human dimensions of an organism-environment system as expressed in depictions and paintings. However, as the chapter showed, this exclusive focus neglected the active role that the properties or features of the environment play in this expression. The following chapter (the final one in the main body of the thesis) extends the speculative argument further by investigating more fully the expressive qualities of the active, responsive dimensions of matter in the development and activity of the phenomenological body, enhancing our understanding of the way visual materials 'come to mean' as emergent in an active, responsive, material world.

In order to recognise the immersion of the phenomenological body in the active and responsive world, the chapter reflects on eighteenth and nineteenth-century philosophy, which places the development of the human body and mind and the creation of artefacts within the active self-regulating system of the Earth, seen from the perspective of deep geological time. Philosopher Manuel De Landa's (2000) non-linear approach to the study of human linguistic history provides a starting point for the study of human activity, not as a linear progress, taking place on an inert and passive planet, but as part and parcel of a meshwork of exchanges and energy flows between geological, genealogical, biomaterial and social structures.

The chapter analyses the development and activity of the phenomenological body, immersed in the processes and energy flows of an active, responsive material world, by focusing on the 'affective' domains of objects, artefacts and materials, and their active role in the development and activity of the phenomenological body. Such a conception of the human body and human activity, taken from cultural anthropology (Ingold, 2000, 2011, 2013), shapes how human artefacts are understood: as emergent or ‘growing’ within the field of forces created by the engagement between the practitioner and the active, responsive, material world, rather than springing from a design conceived in the practitioner’s mind and imposed upon inert matter. Human artefacts come into existence and ‘come to mean’, not only through the actions of the phenomenological body, but also through the resistances and forces of the materials as they express themselves in the form of such artefacts. The chapter uses the conception of matter and materials as active and energetic to deepen the theory of the phenomenological depth of images (and other artefacts) constructed in this thesis through the inclusion of their ‘energetic depth’ (or expression).

5.1 ‘Deep human history’

In his meditation on human history, De Landa (2000) describes what he calls the ‘non-linear’ dynamics of the history of human society, not told simply from the perspective of a progressively more sophisticated process of human evolution, but including other, much older and deeper non-human and inorganic historical perspectives. The thin rocky crust of the planet is a hardening of the greater, ongoing system of underground geological lava flows which organise themselves (momentarily) into structures that result in the surface of the Earth. This process can happen directly through volcanic activity or indirectly through the collision of continental plates; it is a self-organising activity through which many geological forms are created. This process also extends to the development of the body and its genetic components, wherein the flow of biomass in complex food webs, and of genes through generations, shape and harden (again momentarily) to form the body of the organism (De Landa, 2000, pp. 257-258).

This flow of materials, biomass and energy, which forms both geological structures and bodies, does not exclusively refer to the flows of lava, biomass and genes, but also, De Landa reveals, to the flow of 'information', such as memes, norms, money and other processes of human society. He recognises that biological and physical materials (geological and organic) have an energetic potential as a part of a self-organising system of energy flows that impacts on the development of the more recent layer of human society and its products. This recognition, for De Landa, deepens the discussion of human history by including the flow of energy, processes and information of the geological, environmental and genealogical developmental histories within which human societies emerge and 'become'.

At the core of De Landa's work lies the observation that the simple forms of matter and energy, such as geological formations and biological structures, work according to the laws of non-equilibrium thermodynamics – a thermodynamics of 'becoming', with no fixed state. He emphasises the materiality of 'becoming': the flows and processes of energy, biomass and information that are continually at work, mixing and 'hardening' to form human societies. Inorganic matter is much more energetic, variable and creative than traditional studies of human society acknowledge. De Landa (2000, p.16) argues that the contemporary materialist philosophies underpinning the social sciences need to embrace a fuller recognition of this creativity.

De Landa builds what he terms a 'non-linear' history of energy transfer and self-organisation that aims to move away from the orthodox approach to human history – that is, as a history of textual documents, ideologies and human intentions.

He weaves the energy flows and transitions of geological change and uplift, and a genealogical history of germs, plants and animals, between 1000 and 1700 AD together with the linguistic history of human society between 1700 and 2000 AD. This non-linear, 'non-equilibrium' alternative to the linear form of history dominant in the social sciences traces the interplay of energy transitions between biological, genealogical, material and social systems, informed by the systems approaches of the biological and physical sciences (De Landa, 2000, pp. 14-15). Social systems are thus part of an emergent 'stable state' or hardening of the flow of energy and biomass between biological, geological and ecological systems. Their history is not entirely understandable in terms of equilibriums, nor can it be told entirely as the linear trajectory of human progression upon the Earth; it is part of a larger self-organising (emergent) system of mutual interactions and feedback which includes matter, animals and plant-life.

De Landa's theories provide the impetus for the primary work of this chapter: that is, the recognition that a human practitioner and the creation of human artefacts always works or take place in an active and responsive environment – the Earth – which includes matter and energy flows that run much deeper than the top layer of human society. However, whereas De Landa's work focuses upon deepening linguistic history, the focus here is on an artefact of a different kind, the visual artefact. The emerging field of what is termed 'deep history' (Shryock and Smail, 2011) in the study of pre-human history provides a similar philosophical meditation of a particular moment during the eighteenth and nineteenth centuries, which developed in the context of the emerging concept of 'deep geological time', with the emphasis on the study not of linguistic but of material artefacts and their importance to a renewed sense of human history.

The following section will introduce the nineteenth-century notion of deep geological time more fully, following the trajectory of a non-linear human history suggested by De Landa through the inclusion of the work of Andrew Shryock and Daniel Lord Smail (2011) as an illustration of the importance of the concept at work for further reflection upon the history of all human activity. This excursion into the implications of deep geological time will provide the three main points underpinning the chapter's trajectory: firstly, the development of human body and mind is embedded in active and responsive matter which constitutes the self-organising system of the Earth; secondly, to understand the body, and its activity as well as the product of such activity, is to understand that it is always immersed amongst the material artefacts of an environment; and thirdly, human artefacts can be understood as an 'historical' document of the development of the body in an active and responsive world.

5.1.1 *Humanity's deep geological time*

During the turn of the 18th and 19th century the immersion of the development and activity of the human body with an active and responsive geological conception of the earth can be seen to manifest within the geological sciences. This immersion, and it's non-linear and non-equilibrium self-organising nature, as described by De Landa (2000), underpins a gradual sterilization of the concept of a biblical human history, as an emergent stable-state of the energy flow and transfer of the entire system. The Reverend and Geologist William Stukeley's *Philosophy of Earthquakes* (1759) particularly describes the Earth as a living animal in which springs and natural fountains have pipes and canals running within the Earth, just like arteries and glands within the animal body. The Earth for Stukeley was an animal body whose 'animating soul' is an electrical fire or ether (p. 49), through which a constant balancing of energy between the atmosphere and the earth caused uncontrollable 'disasters' such as earthquakes. This animating energy, or ether, for Stukeley has a divine cause, being that of the wrath or judgement of god, a melding of geological and biblical human histories.

The notion in the geological sciences that the Earth was older than previously believed (from the biblical accounts) became a core topic in the academies; it began to offer a different account of human development, one that extended the origins of human history into geological deep time. The suspicion that human history was dwarfed by a pre-human geological and archaeological history slowly grew into near certainty among naturalists studying the topography of the Earth's surface (Rudwick, 1992, p. 27). As media archaeologist Siegfried Zielinski (2006, pp. 4-5) reminds us, James Hutton's *Theory of the Earth* (1778) described the history of its development in terms that were free of theological dogma; it was conceived not in terms of a linear progression of development but as a dynamic cycle of erosion, deposition, consolidation and uplift. As Zielinski describes, Hutton saw that the Earth's history ran much deeper than that of its upper crust and extended into the sub-strata below the granite, and this sub-strata was involved in the formation of the upper layer; his conception of the Earth was of a cyclic, self-renewing machine, without beginning or end, which was constituted by matter and energy flows – a machine in which humanity was implicated.

The growing suspicion that geological history dwarfed the biblical history of the world was not confined to the geological and scientific imaginary of the period. As geologist Martin Rudwick (1992) demonstrates, it manifested itself not only in geological etchings and depictions, but in artistic etchings and paintings. Rudwick interprets John Martin's 1828 mezzotint, *The Deluge*[90] (fig. 5), which depicts the human figure engulfed by overpowering geological structures, as portraying the eclipse of the biblical or divine history of humanity by geological and deep human history.[91]

Figure 5 has been removed due to Copyright restrictions.

A contemporary re-evaluation of the importance of the 'deep geological time' to the earth during the late 18th and 19th century within the study of human history is revising a largely human-centred understanding of the development of the human body and its activity institutionalised since that time. In a contemporary revision of human historiography Andrew Shryock and Daniel Lord Smail (2011) re-evaluate the importance of the emergence of Charles Darwin's *On the Origin of Species by Means of Natural Selection* (1859) during the late 19th century, which brought about a drastic change in the sense of the scale and the role of the human within the universe (pp. 26-27). Darwin's work is seen by Shryock and Smail as a part of the larger 'time revolution' of the 19th century, stated within the development of geological 'deep time' in which Darwin himself offers a link between the relatively new histories of humanity and the much older deep time history of the geological timescale, unifying both geological and biological time.

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[90] A depiction of the biblical narrative in which a great flood is sent by God to destroy civilisation in an act of divine retribution.

[91] Rudwick (1993) traces the use of the depiction of the biblical scene of the Deluge in the geological sciences from the eighteenth and nineteenth centuries. He reveals how the scene was revisited at key moments when the origins of the human form came under scrutiny, particularly noting that as the biblical account of human history gradually lost its grip in the natural sciences, the emphasis of the scene came to increasingly dwell on the geological rock formations.

The evolutionary approach of Darwin, Shryock and Smail (2011) suggest, results in a renewed sense of human history that was not fully accounted for during the nineteenth century itself, which focussed rather upon a socially and politically driven human history, a history of the state[92], that was decidedly progressive and separate from nature as a passive substrate[93]. The human's role was no longer seen as essential and permanent, the human body itself has a deep time: a deeper relation to the deep geological time of the environment in which they are situated. To recognise the development of the human body within this 'deep time' is in turn to recognise that the development of the human body during this period (as with any other period) as a part of a larger system of geological uplift and environmental conditions that is not entirely understandable in terms of human political society and genetics alone.

5.1.2 *The 'distributed' human body*

Shryock and Smail's (2011) work recognises that the human body is shaped over time by tools, food, clothes, social relations and other elements of culture in unintended ways. The gradual modification of the body and the reshaping of its physical muscular structure through the use of clothing is exemplified by the changes in the bone structure of the foot once it is encased in a shoe, leading to the development of a striding gait rather than the gliding one characteristic of the unshod, splayed foot (Shryock and Smail, 2011, pp. 74-75). The human brain and body are plastic; the human phenotype is thus continuously moulded by the environment and by cultural artefacts (p. 16). In this sense, the body does not exclusively follow the laws of physiology and genetics, but is changed, in part, by the exchange and use of cultural artefacts, objects and instruments, and in this sense its development is 'distributed'.

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[92] Shryock and Smail's (2011) work stems from a critique of from the influence of the philosophy of Georg Hagel during the 1830s, who believed that human evolution and progression is built upon the natural environment- and situated the study of human history and natural history on opposite sides of a great divide. Nature, was considered to be the realm of necessity who's only modes of change are cyclical; it reproduces itself without change — a self-organising cyclic system that grows, dies, grows again. Human History, on the other hand, was considered a realm in which creative human agents, conscious of what they are doing, make progressive change upon the natural world — they do not reproduce without change, they progress, the evolve and better themselves. This progressive understanding of human history was a history of politics and society, within which everything that humans built upon nature, especially the nations and states of a nineteenth century Europe, could be treated as historical artifacts precisely because they were beyond nature. At the heart of human history lay the State, lay power, the social and cultural and political, very human centered historical documents were understood as texts, words and illustrations- things that are made by human beings.

[93] For Shryock and Smail, a Hegalian human history is centered on the idea of the conquest of nature and the birth of a human political society. The French historian Jules Michelet (1912) reveals such a focus, written around the turn of the twentieth century: "When the world was born there began a war that will last until the worlds end, and this is the war of man against nature, of the spirit against the flesh, of liberty against determinism. History is nothing but the story of the endless conflict" […] "Barbaric man is called a child of Nature with full reason. He must accept what Nature offers. But civilized man is the child grown to adult stature, and able in manner to control, to dominate - if you please to conquer - the parent" (Jules Michelet (1912) *The Conquest of Nature*, cited in Shryock and Smail, (2011) p. 9).

To account for the development of the human body, Shryock and Smail suggest, is to realise that its ontogenesis is 'distributed' among the material elements and artefacts of a culture. They re-invoke the view of the body illustrated by the earlier thirteenth-century Ebstorf *Mappa Mundi* (fig. 5a), in which every aspect of a culture is depicted as the vast body of Christ, with his body, hands, feet and head placed at the map's extremities. This phenotypical plasticity, extended by the use of cultural artefacts, provides the ground for a discussion of the human nervous system (itself moulded through social exchanges and the use of cultural objects and artefacts), in which the human body and the form its artefacts both comprise part of an objective and subjective system, an historical trace of an ongoing, dynamic historical project.

Figure 5a has been removed due to Copyright restrictions.

An important implication for the study of human history arises out of Shryock and Smail's (2011, pp. 30-31) archaeological approach: for this deeper relationship between the body and the environment to figure more fully in an account of human history, new methods and narratives are needed that can triangulate between human agents and geological materials – methods that could not be fully supported in the models of human cognition stressing the rational rather than relational that were prevalent in the conventional human-centred history of the late nineteenth century. Shryock and Smail argue, similar to De Landa (2000), that the maintenance of a materialist and human-centred account of human history through the study of textual documents (relating to the persons and objects of a certain period) is unable to fully support the implications of the deep geological aspects of human activity – that is, the relational aspects and deep-time processes that impact on humanity and human creative activity, shaping both over time.

Shryock and Smail suggest that a fuller understanding of the implications of the distributed development of the human body requires a shift away from exclusively textual historical documents to take into account a distributed and relational model of human cognition that extends into materials and artefacts:

> Our history is a material history, not just a succession of things or speech acts. … [W]e need narratives that can triangulate between agents and materials. This shift in focus brings into play a model of cognition that differs from the one … which stresses the rational appreciation of evidence rather than a relational understanding. A mind distributed in social relationships and physical materials takes cognition outside the head, beyond the skin and into the world. (Shryock and Smail, 2011, pp. 30-31)

Deep history attempts to re-instate pre-history, before the written word, through archaeological methods: studying the traces of human consciousness left in man-made artefacts, which are themselves containers of meaning and social relations. Such materials, Shryock and Smail insist, contain – just as much as the written word –

traces of human kinship relations and exchanges. Seen in fossils, tools, pictures, household items, ecological change and genetic variation, these traces 'document' a deep history of the development of the human body, activity and mind that extends into the objects and materials of the environment.

Shryock and Smail's distributed nature of cognition and consciousness resembles a 'distributed person' as described within Alfred Gell's (1998) anthropological approach to art, which focuses upon the realm of visual artefacts. For Gell (pp. 222-232) bodies and minds are spatially and temporally 'distributed' amongst objects and artefacts. There is isomorphy of structure between an 'internally' experienced consciousness and 'externally' experienced spatio-temporal artefactual realms. The structures of the artefactual realm, in Gell's case the artefacts of art history, demonstrate an externalized and collective cognitive process of the artist. For Gell 'inner' consciousness and 'outer' artefactual worlds are always relative- the mind extends into physical objects, which become *agents* within social systems of use and experience relative to the consciousness that has been externalised.

Importantly for Gell (p. 223), the mind is not just 'distributed' within images of the artefactual realm (the object and/or person being distributed in time and space), an image has an agency, images of something (what they represent) are considered as parts of that thing (a distributed object) which diffuse into the ambiance and are incorporated by the onlooker through the process of perception that underpin the social use of the artefacts. Through considering the distributed nature of mind, and the agency of the objectified consciousness within images, Gell recognises that:

> […] that 'mind' can exist objectively as well as subjectively; that is, as a pattern of transactable objects - indexes of personhood, in this instance, arm-shells, and necklaces - as well as a fleeting succession of' thoughts', ' intentions', 'mental states', etc. […] a *form of*

> *cognition* which takes place outside the body, which is diffused in space and time, and which is carried on through the medium of physical indexes and transactions involving them. (1998, p. 232)

A ‘person’, for Gell, when studied within the realm of anthropology, is not a bounded biological organism; rather they are always relative to all objects and/or events in the milieu within which they exist. A person, or more precisely- a person’s mind, is not confined to particular spatio-temporal coordinates, but consists of a spread a biographical events and memories of events, and a dispersed category of material objects, traces and learnings.

Both Shryock and Smail and Gell’s descriptions of a ‘distributed human’ or ‘person’, reveal the importance of an ‘agency’ of the artefactual realm of objects and materials for the study of the emergence of human cognition and perception. Both accounts, however, remain predominately human centred, the phenotypical and cognitive plasticity that Shryock and Smail alert us to is distributed among social exchanges and the use of artefacts, which are ‘containers’ of traces left by the development of human cognition. Although Gell attributes an agency to artefacts this agency is always relational within the context of the social appropriation of the artefacts- they only have agency when used by humans (1998, p. 22), otherwise they remain inert. The primary focus on the social and cultural – that is, on the human appropriation of materials – studies the domain of objects, materials and artefacts that functions above the active dimensions of matter. Matter has its own energetic process of self-organisation that constitutes a dynamic cycle of erosion, deposition, consolidation and uplift (Zielinksi, 2006, pp. 4-5). This energised form of matter plays a very active role in the development of the human body and human cognition that extends below the level of social and cultural exchange; it reaches into the properties, flows and forces of the materials and energy that make up the environment. Materials and materiality become important.

5.2 Materials *vs* materiality

A corpus of contemporary thinking in anthropology and archaeology recognises that the exclusive focus on social processes and exchanges limits an understanding of the term ‘materiality’. Anthropologist Ian Hodder (2012, p. 59) contends that most contemporary studies of materiality in the domain of anthropology deal primarily with the social processes by which the (an apparently separate) material world is revealed to human beings. Ingold (2000, 2007b, 2013), in particular, objects to the notion of materiality that lies at the centre of many of the approaches to the study of material culture, arguing that such an analysis needs to go beyond the ‘social’ appropriation of ‘brute matter’ to more fully incorporate the ‘material object-ness’ of what he calls ‘materials’.

It is important to clarify what Ingold means by ‘materiality’ and ‘materials’, as these terms lie at the centre of his philosophy of creativity. Ingold (2013, p. 27) believes the way the term ‘materiality’ is employed in the study of material culture fails to give any account of the energetic and active role of matter. He reveals the Janus-faced nature of the term in this context (primarily in archaeology). It takes on two sorts of meaning: as the brute physical properties of matter (the raw physicality of the world’s material nature) which shape the way particular pieces of stone are given meaning and value in social and historical contexts;[94] and socially and culturally, as how the material world around us offers possibilities for human agency and is appropriated by humanity for its projects.[95] In contrast, Ingold’s term ‘materials’ signifies the energetic and active responsiveness – the properties and forces – of matter, which play an active role in shaping human activity and creativity, and which cannot be described through its social and cultural appropriation.

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[94] Ingold cites the work of Christopher Tilley (2007) and Andrew Jones (2004) in this regard.

[95] Ingold cites the work of Nicole Boivin (2008) and Joshua Pollard (2004) in this regard.

Ingold’s notion of ‘material’ proceeds from philosopher Gilbert Simondon’s (1964) critique of what he describes as the ‘hylomorphic’ (or ‘matter-form’) theory of creation, an account of creativity conforming to the notion that the human mind is independent from, and works upon, the natural external world – the human agent works upon inert, ‘dead’ matter. To follow the hylomorphic model of creativity, Simondon argues, is to account for the creative generation of a ‘thing’ in terms of its formulation, in advance, in the intellect of a human agent, who then imposes this form upon apparently inert, passive matter. Simondon ([1964] 1992, p. 299) argues that in privileging such an anthropocentric model of creativity, the very agency of the matter itself (its properties, forces and resistances) that play a crucial part in the actual processes of an object’s creation (the activity of physically making an object involves material forces and processes) are neglected, reduced to a process of “putting forward, or putting into effect, the already conceived form, from the mind of the productive agent”.

According to Simondon, what the hylomorphic theory of creation, as applied to the study of human artefacts, ignores by defining form and matter as separate domains are the wider processes of continuous modulation – distributed across both human bodies and the matter and materials being manipulated – behind the physical creation of a form. Simondon recognises that matter is not a simple or homogenous substance capable of receiving forms, but is itself made up of intensive and energetic traits that not only make the operation possible, but continuously alter the processes of creation. This represents a shift to what Deleuze and Guattari ([1987] 2004, p. 379) term not a ‘matter-form’ but a ‘material-force’ relationship.[96]

Ingold’s (2013, p. 28) rejection of the term ‘materiality’ as it is conventionally used in the study of material culture is based on Simondon’s philosophy, in that it recognises that the very ‘becoming’ of materials (that is, their generative or regenerative potential) has been replaced by the notion of an already solid world of properties. Instead of the term ‘property’, Ingold suggests the use of the term ‘quality’ as a way of describing the generative and active potential of materials and the role they play in human activity. In moving to an idea of qualities, Ingold challenges the notion of a hard or solid materiality, replacing it with one that is emergent and morphogenetic, expressing how materials and properties change depending on the movement and activity of the organism bound up with them. In this sense, he aligns himself with the thinking of Merleau-Ponty, outlined in the last chapter, for whom the properties of the environment are emergent, along with the intentions of the subject, in their movement, gestures and behaviour. From the point of view of an enactive account of reality, as the previous chapter shows, what Varela terms the ‘enacted features’ of the environment are an emergent part of a self-organising and autopoietic system of relations, with their own trajectories of ‘becoming’.

5.2.1 *The human as counterpoint*

A recognition of the active and responsive dimensions of materials in the study of human activity has implications for an understanding of the activity of the human body itself, not as a discrete developmental trajectory separate from the environment, but as a trajectory that runs alongside the environment. Following in the footsteps of thinkers such as Torben Hagerstrand (1976) and von Uexküll ([1934] 2010), Ingold argues that every constituent of the environment – be it human, animal, plant, stone or building – is a continuous trajectory or thread of 'becoming', always as a counterpoint to the rest of the world's 'tapestry'.

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[96] What Deleuze and Guattari ([1987] 2004, pp. 377-379) term a ‘material-force ontology’ is grounded in the rejection of the notions of form and matter, substance and attribute, and a move toward a conception of an energetic matter, a material-force – that is, a material that harnesses the forces of the cosmos. Following Klee’s dictum that art does not render visible the external world, but renders visible non-visible forces, Deleuze and Guattari see painting, in the terms of their material-force ontology, as rendering the forces of the cosmos and matter visible, of capturing them.

Particularly important to Ingold is von Uexküll's notion of the world as a 'tapestry' or a 'melody' of lines and scores, in which the animal and the medium (the animal's environment) are co-constituted and interdependent.[97] According to von Uexküll, the rules or properties that constitute the environment can be said to shape, and in turn be shaped by, the composition of an organism's cells – a process he portrays as an emergent 'melody', expressing the development of both environmental properties and the organism's cellular structure, which are both in some way traces of the properties of the environment and the organism.[98] The organic forms of both are contrapuntal and plastic, emerging in multiple semi-independent melodic lines, always as a counterpoint to the entire composition, which itself emerges from what is of interest to the organism(s) involved.

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[97] Von Uexkull ([1934] 2010, p. 100) declares that "[n]othing is left to chance in nature. In every instance a very intimate meaning rule joins the animal and its medium; they are united in a duet, in which the two partners' properties are contrapuntally made for each other ".

[98] "The rule that governs the properties of sea-water acts upon the composition of the cells of protoplasm of the octopus embryo. It shapes the melody of the development of the octopus form to express the properties of seawater in a counterpoint; first and foremost, an organ is produced whose muscular walls force the water in and out. The rule of meaning that joins point and counterpoint is expressed in the action of swimming. The same meaning rule in numerous variations governs the development of the living forms of all marine animals: sometimes they swim forwards, sometimes backwards, sometimes sideways; sometimes they propel themselves with wave-like movements of the tail, sometimes by fins, and sometimes by legs through the water; but the characteristics of the organism bear the same relationship to the properties of the water as point to counterpoint. In each case, the composition that has a common meaning can be proven. The same applies to all the various circles of the physical medium, whether the animal lives in water, on the land, or in the air. In every case the effector organs for running, jumping, climbing, fluttering, flying, or soaring are formed contrapuntally to the properties of the respective medium. In the case of many insects that live in the water when they are young and in the air when they are older, one can ascertain in the second larval stage how easily the constitution-rule of the new medium causes the initial organs to disappear and new ones to emerge. Inspection of the relationship between the subject's receptors and the medium teaches the same lesson. A sensory organ formed as a counterpoint is always present when a subject meets an obstacle: in the case of light it is the eye, and of darkness, tactile organs or the ear. From the very beginning the bat, like the swallow, is equipped with different means to perceive obstacles in its path of flight" (von Uexkull, [1934] 2010, pp. 100-101).

To illustrate such a ‘composition’, von Uexküll ([1934] 2010, pp. 122-123) describes the processes underlying the creation of a spider’s web. He shows how the spider spins its web before it has even encountered a physical fly. Thus the web cannot be a representation of any particular fly; rather, it represents a ‘primal image’ (what can be understood as an ‘imaginary’) of the fly, which is not physically present. Von Uexküll does not end here, for there is also a ‘primal score’ (or a way of acting) for the fly, just as there is for the spider. The primal score of the fly (which is also affected by its own primal image of the spider, as well as other aspects of the environment) affects the spider’s primal image of the fly. In this way, the form of the web can be called ‘fly-like’, as the ‘fly-likeness’ of the web is constructed in counterpoint to the entire tapestry of the metaphysical and physical dimensions that constitute the reality that is created between spider and fly.

Ingold foregrounds von Uexküll’s notion of counterpoint to re-think the boundary that is conventionally assumed to exist between the organism and the environment by conceiving of the human organism itself as a counterpoint; the human being is not a bounded entity but what Deleuze ([1987] 2004) describes as ‘a line of becoming’, whose very being includes that which is counterpoint to the trajectory (or ‘becoming’) of the properties and energies of the environment. Ingold (2011a, pp. 70-72) argues that the notion of a bounded organism, commonplace in many network and systems models across a broad range of disciplines within the humanities,[99] is the consequence of a ‘logic of inversion’, which maintains a material distinction between the world of humanity and that of nature. This logic of inversion, he declares, turns the trajectories along which life is lived (the ‘becoming’ of life) into boundaries within which life is contained. Life is thus reduced to the internal ‘property’ of a bounded organism that occupies a world rather than inhabiting it (Ingold, 2011a, pp. 70-72).

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[99] Ingold reveals how network images have become commonplace across a broad spectrum of disciplines, embedded in terms such as the ‘web of life’ in ecology, ‘social networks’ in sociology, and ‘agent-object networks’ in material culture studies. Ingold is particuarly suspicious of the application of actor-network theory (ANT) in cultural anthropology, which he suggests reduces the emergent trajectories along which life is lived to fixed points or nodes (or paths) within a network. His notion of ‘Skilled Practice Involves Developmentally Embodied Responsiveness’ (SPIDER) is an attempt to

Ingold refutes the ‘network model’ of relations by questioning the very need for a distinction between the organism or ‘node’ and its lines of connection or relation; that is, the need for a distinction between a material component such as an organism and the immaterial process or relations that connect material components.[100] He maintains that in a network model there can be:

> […] no mutuality without prior separation of the elements whose constitution is at issue. That is to say, the establishment of relations between these elements – whether they be organisms, persons or things of any other kind – necessarily requires that each is turned in upon itself prior to its integration into the network. (Ingold, 2011a, p. 70)

Ingold argues that network models of organisms and environments (including the systems theory of Bateson, as well as that of Maturana and Varela, outlined in the previous chapter) treat the material node (the organism) separately from its immaterial relations with the rest of the network (the processes), and as such they logically entail that the organism, and its nervous system, is constituted prior to its engagement with, or insertion into, the environment. Ingold argues that by maintaining that the material nature of the organism can be distinguished from the immaterial processes of its

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build an alternative to ANT in which the skilled practitioner is more fully understood as one who continually attunes their movements to the perturbations of the environment without interrupting the flow of action (Ingold, 2011b, pp. 89-94).

[100] As is evident in Maturana and Varela’s ([1979] 1980, p. 7) autopoietic system (see Chapter Four), “[t]he organization of the system is not the material properties of its components, but the relations (or processes) between the components, the organism is clearly bounded, in a reciprocal relation to the environment, a network of components and relations, of separate material and immaterial domains”.

relation with the environment, such a logic neglects the diverse and distributed counterpoints in the wider tapestry of the world, the energetic and active materials (the properties or features) of the environment, which itself is 'becoming'.

To undo the inversion between organism and environment in favour of a theory of the relational nature of being, Ingold (2011a, pp. 69-70) repudiates the distinction between an organism (as matter) and their relations (as processes), recognising that they are always constituted in relation to each other. Two key points arising from Ingold's thought echo the phenomenology of Merleau-Ponty outlined in the previous chapter: the organism should not be specified genotypically as a separate, material body prior to its entry into the environment; and the environment, including its properties or features, should not be specified as a set of physical constraints in advance of the organisms that arrive to fill it (Ingold, 2011a, p. 19). Rather, it should be understood as contrapuntal – as emergent.

This line of thinking leads Ingold to describe an organism not as a bounded entity but as a line or trajectory,[101] in which it is a trail of growth and movement, with a duration or 'becoming' that is always running in counterpoint to the trails of the trajectories of 'becoming' of the other diverse constituents of the environment. Crucially, in Ingold's work, an organism is understood not as a material node in relation to a wider network, but as a knot of energetic lines in a tissue of other knots and lines (fig. 5b). An organism is thus always enmeshed with other strands, comprising, not a network of relations, as is held by systems approaches, but rather a texture or ‘meshwork’.

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[101] Ingold's notion of the organism takes its inspiration from what Deleuze and Guattari call 'lines of becoming', or 'lines of life': "A line of becoming is not defined by the points it connects, or by the points that compose it; on the contrary, it passes between points, it comes up through the middle, it runs … transversally to the localized relation to distant or contiguous points. A point is always a point of origin. But a line of becoming has neither beginning nor end … only a middle … A becoming is always in the middle: one can only get in by the middle. A becoming is neither one nor two, nor the relation of the two; it is the in-between" (Deleuze and Guattari, [1987] 2004, p. 323).

Figure 5b has been removed due to Copyright restrictions.

Ingold’s (2013, pp.132-133) use of the term ‘meshwork’ is taken from Deleuze and Guattari (2004) and Henri Leferbve (1991), and is defined by its two central differences to a network: first, the lines of a meshwork do not connect one static node to another spatially – they are lines of movement, temporal lines of duration and ‘becoming’; and secondly, there are not nodes in a meshwork but rather knots, where many lines of ‘becoming’ are drawn tightly together through movement in the environment. These lines of ‘becoming’ comprising the meshwork are the lines of ‘becoming’ of every constituent of the environment, be it animal, plant, earth, rock, clay or environmental conditions such as the weather. Thus the meshwork, constituted by the trajectory or ‘becoming’ of every organism, object, material and process that is encountered through movement, is the texture of the organism’s life-world. The activities of the organism also run as a counterpoint within the meshwork, rendering partially immaterial the medium through which they move and develop (Ingold, 2013, p. 73), and helping create a relational field in which human activity is intricately entangled.

The notion of a meshwork can be made more transparent by juxtaposing it with the use of the term in De Landa’s (2000) non-linear history of the exchange of geological, genealogical and biomass energies, outlined at the start of the chapter. Like Ingold, following the example of Deleuze and Guattari (2004), De Landa uses the term to denote the complex interplay of energy transitions between the various parts of a self-organising system. For De Landa, this meshwork refers to a system of self-stimulation and self-maintenance, the linking of a series of mutually stimulating pairs – of geological flows, geological change and social structures – into a structure that reproduces as a whole (De Landa, 2000, p. 62). Each of the histories or strands of energy flow comprising the meshwork – the geological, biological and social – are always an expression of the larger self-organising reality within which they all co-exist; each history is in some way an expression of the others, and is also an expression of the self-organising system as a whole, which is constantly in flux. De Landa's use of the term 'meshwork' aims to chart the energy flows between constituents such as geological, genealogical, social and organic materials that express themselves, as they harden into fixed forms, as the environment and human bodies. This idea of self-expression through 'hardening' echoes Ingold's use of the term 'counterpoint'; it recognises that the development of the human body always expresses that which runs in counterpoint to its development within the meshwork in which its development and activity is bound.

5.2.2 *Human artefacts are not entirely 'designed'*

Ingold's and De Landa's recognition of the relational character of the human body as it runs in counterpoint to the meshwork of materials and forces that constitutes the environment in which it works shows that what is called a 'human artefact' does not entirely equate to the idea of a form imposed by a human agent upon an inert material substance, but is developed in the same way as the human body is, in counterpoint to the responsive environment. De Landa (2000) understands linguistic artefacts as the 'hardening' of geological, genealogical, biomass and socio-economic energy flows, rather than in terms of the linear trajectory of human progression. Similarly, in

Ingold’s (2013) thinking, the term ‘artefact’ (that is, material culture such as pots, baskets and tools) refers to the processes of growth that ‘harden’ to form the artefact, and does not necessarily refer exclusively to a ‘designed’ object made by an intellectually agile human practitioner.

Focusing on the objects of material culture, an artefact’s form is not constructed entirely as a design in the mind of the practitioner and then imposed on inert matter, but emerges from the play of forces, tensions and resistances amid the engagement of the practitioner with an active material in a richly structured environment. Describing the processes of the creation of cultural forms, Ingold maintains that human artefacts are not to be exclusively understood as ‘made’ (by the imposition of a design specification upon a material world); rather, they are ‘grown’, generated within a field of forces and resistances that cut across the developing interface between the organism, environment and the materials being manipulated. Crucially, in Ingold’s terms, the ‘growth’ of an artefact comes to express the strands of the meshwork within which it grows. Its form in some way expresses the energy flows and transitions through which it is ‘brought forth’.

5.3 The ‘growth’ of form: weaving a basket

Using the weaving of a basket as a philosophical metaphor for the ‘growth’ of an artefact, Ingold ([2000] 2010, p. 341) asks whether it can really be maintained that the basket has been created entirely through the imposition of a human design on a raw material. His answer is: not exactly. It is important to note that Ingold (2013, p. 22) does not deny the notion that there is a pre-conceived idea in the mind of the practitioner; however, he argues that it is not entirely the form of this idea that creates the artefact, but the practitioner’s engagement with the materials. Basketry, Ingold reminds us, involves the bending and interweaving of fibres that may exert a considerable resistance of their own. The basket holds together and assumes a rigid form precisely because of its tensile structure (Ingold, ([2000] 2010, p. 342). The form of the basket is thus the result of the play of forces, both internal and external to the human body and the material it is made of – a form that is 'grown' within a relational force field, in which the weaver's movements and activities are caught up in a reciprocal dialogue:

> The actual concrete form of the basket … does not issue from an idea. It rather comes into being through the gradual unfolding of the field of forces set up through the active and sensuous engagement of practitioner and material. This field is neither internal to the material nor internal to the practitioner (hence external to the material); rather, it cuts across the emergent interface between them. Effectively, the form of the basket emerges through a pattern of *skilled movement,* and it is the rhythmic repetition of that movement that gives rise to the regularity of the form. (Ingold, [2000] 2010, p. 342)

What Ingold refers to as 'skilled movement'[102] is an emergent property of a total field of relations constituted by the presence of the organism (the practitioner) in a richly structured environment[103] (Ingold, ([2000] 2010, p. 353). This skill is always situated in the wider developmental history of a system comprising both the practitioner's movements and the properties, resistances and forces of the material, running as a counterpoint to that movement,[104] an emergent process that cannot be reduced to the concept of a single formula imposed upon a material. The 'growth' of a human artefact, such as a woven basket, is seen more as a process of autopoiesis (p. 345); that is, a self-transformation over time of the entire system of relations that comprise the organism-environment system in which the artefact comes into being. Crucially, for Ingold, as the human practitioner is involved in the same system (the meshwork or knots of strands) as the material with which they work; their activity does not transform the system solely from the outside, but is part and parcel of the system's transformation of itself.

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[102] What Ingold describes as 'skill' he maintains is a skilled movement that is emergent (not purely implicit, not purely learnt), a product of the entire 'structural history' of the engagement of the practitioner with the materials. What is possible through this skilled movement is based upon (but not entirely determined by) the history of movements and engagements.

[103] Ingold returns to Bateson's model of the man with an axe (cited in Chapter Four), in which he situates 'skill' in a wider system; it is as much mental as physical, a property not of the individual human body, but of the total field of relations including axe, man and tree (Ingold, [2000] 2010, pp. 352-353).

[104] Malafouris (2007) offers a further account of material agency in pottery. Here, the potter's intentionality is seen as emergent in the relationship between the material state of the clay that needs moulding, the speed of the wheel being turned, and the pressure the potter needs to exert to pull the pot into shape.

The processes involved in the creation of a woven basket also extend beyond the movements of the body of the practitioner as they respond in counterpoint to the material being manipulated into the strands of the meshwork that comprises their environmental conditions. In describing the weaving of a willow basket on a beach, Ingold (2013, pp. 23-24) reveals that it is not only the play of forces between the material and the practitioner that shapes the form, but also the environmental forces. The vertical struts that form the template along which the basket's form is gradually woven sway and move with the wind, and this is captured in the weave as the basket develops through movements instigated by the practitioner (fig. 5c). This results in the completed basket bearing a slight tilt, which follows the trajectory and force of the wind, a tilt that is also specific to the individual basket-maker's engagement with the material and their position within a particular climatic environment.

Figure 5c has been removed due to Copyright restrictions.

Ingold's illustration of the meshwork of forces and resistances that impact on the weaving of a basket exemplifies his account of the creation of form, and by extension of human artefacts, which focuses attention on the form-giving processes (the flow of energy and resistances) that give rise to the artefact's form as part of an organism working in an active and responsive material world. Four key points arise from Ingold's thinking: (1) the form of an artefact is emergent (or 'grown') within a meshwork of material and immaterial threads distributed across the practitioner, the material and the richly structured environment by their engagement; (2) the form's development is autopoietic, the self-transformation of a system of relations over time, with the developing form acting as its own template by building upon what came previously – that is, upon the entire dynamic developmental system; (3) the form of the artefact is a crystallisation of movement and activity in a dynamic relational field, and the regularities of the form embody the regularities of the movement that gave rise to it; and (4) the conditions and processes of the form's development (the wider meshwork that includes matter and imagination) become inscribed within the form of the created artefact.

An important implication of the recognition of the active roles played by materials and environmental conditions is that 'true' agency cannot be attributed to either practitioner or material; rather, the practitioner's agency is one among many agencies of varying degrees of authority. The possible site of the developing artefact's agency (or rather 'becoming') shifts to the movement that gives rise to the form, a movement that plays out in the resistance and tension between practitioner, material and environment. These tensions and resistances belong to a matter that is animated by energy and force, what Ingold terms, after Deleuze (2004), a 'material-force' that includes both the body and the materials being used. The creator's body is energised by many immaterial forces, such as temperament, feeling and emotion, and the materials are energised by their own resistances, tensions and qualities, which become fixed in some way in the developing form of the basket.

According to Ingold (2013, pp. 102-104), the process is less about a play of agencies and more about a dance of animacy, in which the ‘agents’ act more as transducers: they conduct the kinetic quality (the energy) of gestures from one register, bodily kinaesthesia, to another, material flux. Equally, movement and activity become less about a body interacting with a world in which the parties are closed off from one another, only coming together through a bridging operation, and more about the correspondence of energy flow between bodily movement and the world. This correspondence is “like a relay, in which each participant takes it in turns to pick up the baton and carry it forward, while others remain temporarily quiescent, awaiting their turn” (Ingold, 2013, p. 105). Movement and activity inform the trajectories of correspondences through which human artefacts are created.

The form of artefacts, in such a system of correspondences, is not a fixed point to be analysed from above, but the momentary correspondence of a meshwork of form-giving processes, of lines of movement, entangled in lines of energy, force and matter. In Ingold’s ([2000] 2010) terms, the origins of man-made tools or artefacts should not be traced back from their outcome, through a sequence of antecedent conditions, to an idea in the mind of the agent, but forwards, recognising that the maker’s role is to ‘bring forth’ form through joining, following, manipulating and responding to the forces and flows of materials in a richly structured environment.

Ingold’s work provides a valuable philosophical reflection on both creativity and human artefacts, enabling a fuller account of the active role of materials and the environment in the development of cultural artefacts. His use of the concept of ‘material-force’ as applied not just to the materials but also to the practitioner’s body provides a framework that allows for the inclusion of the dimensions of phenomenology and subjectivity, which, this thesis argues, are essential to the study of the style of visual materials. However, although Ingold's discussion of the meshwork, and of weaving in particular, focuses on the forces and resistances of matter and environmental conditions, together with human movement and engagement, he does not attempt to discuss the multi-sensory, experiential and imaginary dimensions of this engagement, which underpin the development of visual materials. To this end, the wider use of the term 'meshwork' that this chapter adopts in order to study the development of visual materials, such as painting, is one that includes not only materials, geologies, genealogies and environmental conditions, but also the multi-sensory, experiential, imaginary forces of the phenomenological body that energise the trajectory of the practitioner.

To ease the transition of Ingold's ideas regarding the creative process of weaving to that of visual materials the literature regarding creativity within the context of art and painting provides a similar meditation. The writing of Monroe Beardsley (1965) in particular reveals the importance of the creative process within the arts and beyond that generates its own direction and momentum. There is no such thing, for Beardsley, as a single guiding factor (or a single creative pattern of control) that results in a work of art, rather creativity is a self corrective process, both conscious and pre-conscious, between the artist and the work, a constant re-direction of aims that emerges through the activity of the artist with their materials. Any 'control' of the outcome of the work is neither determined by the 'means' or the 'end' in the mind of the artist, or within the materials being used, rather 'control' is internal to the process itself. For Beardsley, this process is always an interplay between the conscious and pre-conscious and between the maker and the work, as such:

> […] once a work is under way the […] creative process is kept going by tensions between what has been done and what might have been done. At each stage there must be a perception of the deficiencies in what now exists, plus the sense of unrealized possibilities of improvement (Beardsley, 1965, pp. 298-299).

Beardsley's writing avoids a discussion of what constitutes the pre-conscious and the un-conscious, but does provide the space for a fuller discussion regarding the phenomenological experience of the maker in the context of painting. To more fully bridge the phenomenological processes and experiences of the body and the wider meshwork of materials and resistances through which visual materials emerge, the remainder of this chapter will return to the writing of Deleuze (1981) in relation to modern painting (surveyed briefly in the previous chapter). In the context of this chapter, Deleuze's analysis of the work of Francis Bacon provides a model of 'artistic sensation' that he describes as emergent through the activity of a phenomenological body immersed within the energetic and active forces of the material world that surround it and that it experiences. In this respect, Deleuze's thinking will be used to synthesise the deep-time, material development of the human body, described in the work of Shryock and Smail (2011) and De Landa (2000), with that of the phenomenology of the practitioner.

5.4 The deep-time aspects of modernist painting

Deleuze's work sits alongside that of the group of 'process' thinkers and philosophers[105] that emerged during the late nineteenth and early twentieth centuries, who perceived in modern art the renunciation of representation in favour of the study of the conditions and processes leading to representation, which extend across multiple dimensions of a plural reality,[106] including those of the phenomenological body and the active environment. Deleuze's thoughts on painting aligned him with painters such as Klee and Cézanne. He adopted Klee's dictum that art does not reproduce the visible; rather, it renders visible the unseen, invisible forces. Significantly, as far as Deleuze was concerned, late nineteenth and early twentieth-century painting did not aim to produce new, distinct, visible forms, but to present, or indeed recognise, the non-visible, affective forces that act behind or beneath the visible forms (Smith, 1997, pp. 29-56). Deleuze's recognition of the intertwined phenomenological and material conditions and processes leading to representation provides an approach by which to discuss the importance of the multi-sensory, experiential and imaginary as they fuse with the invisible dimensions of materials – their properties, forces and resistances – made visible in the style of particular modernist paintings.

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[105] The work of philosopher Henri Bergson (1911), in particular, had a great influence on Deleuze. In this context, Deleuze uses the work of Klee (1964), whose treatise, *On Modern Art*, echoes the themes of Bergson's process philosophy. Merleau-Ponty's (1964) phenomenological reading of the work of modernist painters also follows the writing of Bergson closely.

Deleuze constructs an analysis of modernist painting that is underpinned by an existential and emergent concept of the 'figural' (as outlined in chapter four). As Crowther notes (2012, p. 23), for Deleuze, the painted figure is emergent, not as a body or material thing represented in its organic and natural form, but through its genesis; it is rendered as a 'becoming', and its very existence always refers back to the wider conditions that create the possibility of its emergence (p. 26). In this context, Deleuze's study of modernist painting, particularly his analysis of Bacon's work in *The Logic of Sensation* (1981), can be aligned with a more contemporary understanding of the nineteenth-century concept of the deep-time geological dimensions of the human body (outlined earlier). Deleuze's reading of a selection of modernist painters' practices begins with the notion that human beings no longer experience themselves as an eternal essence, autonomous and separate from the environment, but as an organism that is impacted on by distributed forces or 'accidents' not entirely under its control – and the form of painting itself expresses these accidents.

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[106] 'Plurality' here refers to what William James (1928, pp. 249-252), influenced by the work of Bergson, describes as a 'pluralistic universe', in which the ruling tradition of rationalism within Western philosophy (also termed 'materialism') – the belief in the fixed nature of matter, concepts and truth – is supplemented by the recognition of what he describes as reality's pluralistic 'thickness'. In this 'thickness' there is no distinction between an 'inner' (metaphysical) and 'outer' (physical) reality (realities of subject and object); rather, the metaphysical and physical are intermingled and interdependent; there is no single absolute reality. For James, as for Bergson, what really exists is a reality that is always in the making.

5.4.1 *A Deleuzian account of sensation*

Deleuze conceives of artistic sensation as an 'affect',[107] the conditions of which are partly distributed among what are assumed to be the 'non-human' forces and energies of the environment that impact on the body of the artist. For Deleuze, sensation is not constrained or contained in the body of the painter,[108] but are part of a larger existential process of lines of force or energy that penetrate the body. Deleuze recognises that all matter possesses energy or forces, such as magnetic and thermal forces, and these effect or penetrate the body of the practitioner as they move through the world. The nervous system of the artist is thus distributed among the energetic and, crucially, non-human forces of the environment:

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[107] An 'affect' is described in the preface to Deleuze and Guattari's *A Thousand Plateaus* (([1987] 2004, p. xvii), translated by Brian Massumi, as a "prepersonal intensity corresponding to the passage from one experiential state of the body to another and implying an augmentation or diminution in the body's capacity to act. *L'affection* (Spinoza's *affectio*) is each such state considered as an encounter between the affected body and a second, affecting, body." Elizabeth Grosz (2008, pp. 3-4) provides further clarity by differentiating 'affects' from a transcendental phenomenological tradition linking the body to outside forces that it experiences directly. Affects, Grosz states, attest to the body's immersion and participation in nature, in chaos and materiality, as the non-human 'becomings' of man.

[108] As argued in Chapter Four, Deleuze finds support for his distributed model of sensation (some conditions of which extend beyond the nervous system into the flows and forces of the Earth itself) in the work of modernist painters such as Millet, Cézanne, Bacon and van Gogh. He describes how these artists illustrate the idea that the act of painting is, in some respects, the process of capturing the energetic forces of the world, giving a visible existence to the distributed processes and forces of the environment.

> [F]or a sensation to exist, a force must be exerted on a body, on a point of the wave. But the force is the condition of sensation, it is nonetheless not the force that is sensed, since the sensation 'gives' something completely different from the forces that condition it. … It is in this way that music must render non-sonourous forces sonorous, and painting must render invisible forces visible. (Deleuze [1981] 2003, p. 56)
>
> [W]ith one face turned toward the subject (the nervous system, vital movement, 'instinct', 'temperament' – a whole vocabulary common to both Naturalism and Cézanne) and one face turned toward the object (the 'fact', the place, the event)… (Deleuze [1981] 2003, p. 34)

What the artist paints, Deleuze ([1981] 2003, p. 35) maintains, is the 'face' of their temperament – a phenomenological instinct posited on a sensation that is the result of a force impacting upon the body – and their actions as they paint are built on this sensation. In this sense, the figure produced by the artist is always a sensible form related to the distributed sensation of the artist in an energetic environment (p. 34). Deleuze sees the rolling force of the mountains, captured by Cézanne in the form of lines or threads, as 'affects' which exert themselves upon the body, penetrating it, resulting in a sensation which is turned into an action by the temperament of the artist, and 'fixed' in the created image through the movement generating it. The image thus extends into the energies and forces of the environment that always have an impact on the movement and action of the painter's body as they paint.

In conflating the conventional distinction between the physical nervous system of the artist, the energetic forces of the environment and the phenomenological dimensions of consciousness, Deleuze (developing Klee's analysis) sees the artist's nervous system extending into the flows and energies of matter as threads or lines of force – that is, as an 'affect' that is part of a larger developmental system. Deleuze's concept of the distributed and extended aspects of sensation is influenced by his reading of the vitalist philosopher Henri Bergson (1859-1941), who, in maintaining that reality is constructed by matter that is co-constituted by a spiritual, vital dimension of its own, recognised that the sense organs were not the limit of human perception and mind. Bergson saw a much deeper immaterial extension of perception in the energetic matter of the universe as part of a larger developmental system.[109]

Crucially, Bergson's philosophy leads Deleuze ([1981] 2003) to propose an alternative conception of the 'work' of modernist painting, taking it beyond the traditional figurative interpretations and socio-cultural readings outlined in Chapter One. In extending the thought of artists such as Klee, Deleuze recognises that painting is the process of giving a visible existence to invisible phenomenological and environmental forces.[110] The move toward abstraction and the figural through the reduction of recognisable content is not an attempt to discover the material 'essences' of a medium,[111] but to attain or understand a new emerging model of existential sensation. Deleuze ([1981] 2003, p. 43) presents a way of getting closer to the creative processes underpinning a way of acting in (and 'bringing forth') the world directly by exhibiting, giving a visible existence to, the dynamic and affective forces and material conditions that underlie the process of depiction itself.

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[109] For process philosophers such as Bergson, the body (including the sense organs and the brain) is not an epistemological and ontological domain that is separate from the external world; both body and brain constitute the same organism: " Is it possible to conceive the nervous system as living apart from the organism which nourishes it, from the atmosphere in which the organism breathes, from the earth which the atmosphere envelopes, from the sun round which the earth revolves? … More generally, does not the fiction of an isolated material object imply a kind of absurdity, since this object borrows its physical properties from the relations which it maintains with all others?" (Bergson, [1911] 2007, p.11).

[110] Klee's notebooks (1956, 1964) and his treatise, *On Modern Art* (1948), reveal his primary focus on the study of the environmental processes that result in the form of lines and figures. In doing so, Klee's approach left subjectivity aside in order to more fully understand these environmental processes and their role in the creation of visual forms. Although Deleuze cites Klee throughout much of his work, his use of Klee's dictum "not to render the visible, but to render visible the invisible" includes the dimensions of phenomenology that Klee's experiments placed to the side.

[111] A widely held conventional account of the modernist project, underpinned by a formal and materialistic conception of its work, which is outlined in Chapter One.

Deleuze's analysis of artistic affective sensation provides an account of the environmental material processes of depiction which recognises the fusion of phenomenological and material/environmental processes and forces made visible in the work. Situating Deleuze's thinking in De Landa's (2000) and Shryock and Smail's (2011) recent reconfiguration of the deep-time aspects of the late nineteenth-century study of human history gives his conception of painting a contemporary weight. As Deleuze describes, the painter experiences him/herself not as an autonomous, eternal essence, separate to the Earth, but influenced by distributed forces or 'accidents' not entirely under their control. These 'accidents', in the wider context of deep geological time, are understood as the geological and material forces of the environment, which, this chapter argues, a painting's style and details express in some way.

Deleuze's existential and philosophical account of painting is, however, both hierarchical and teleological, in that it attempts to present the achievements of the painters of 'high art', such as Cézanne and Bacon, as the apotheosis of modernist painting. His account of modern sensation refers to the sensation of the artist,[112] and unnecessarily treats painting as independent of the wider landscape containing the practices and techniques of the period. As Chapters Two and Three show, Warburg's approach to the study of diverse materials of visual culture has allowed a broader analysis of how the details of human and non-human figures represented in painting (illustrated through his study of the figure of the nymph in the work of Manet) can be juxtaposed with the details of other visual materials to reveal the larger shared imaginary or 'pathos formula' (Rampley, 1997) of the period. In the context of Deleuze's analysis, the 'pathos formula', described in the previous chapter as 'enactive', can be further understood by rooting the body of the practitioner(s) in the wider affective environmental conditions of the period (in deep geological time), and as running in counterpoint to the material, environmental and geological processes of the self-organising model of the Earth, finding expression in the depiction of the human figure.

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[112] This 'auteurist' approach is maintained throughout many of Deleuze's works, most notably his two cinema works, in which his readings of film works are confined to Hollywood cinema, neorealism and the avant-garde.

5.5 The 'affective' details of *The Luncheon on the Grass*

This chapter has argued that the properties (or features) of the environment are more like 'qualities' (following Ingold (2013)), taking on the shape of both the imaginary of the organism and what is revealed as possible in the constant 'becoming' of the environment. As the previous two chapters described, via the work of Merleau-Ponty, the properties of the environment and the activities and intentions of the organism are intermingled, constituting a new whole. In this sense, the discovery of a deep geological time does not change how the human being during this period acts and understands the world; rather, the notion of deep geological time itself emerges, is 'brought forth', as a 'hardening' of the meshwork through a way of acting within the world. The notion of deep geological time is, in this sense, a manifestation, trace, confirmation or reminder of the always-embedded nature of the functioning and development of the human body in an active, responsive environment during the eighteenth and nineteenth century.

The 'qualities' of deep geological time (the active and responsive forces of matter) are not so much discovered as 'brought forth' as a part of an ongoing, self-regulating system, expressed through painting. The movement and activities of the human being and the deeper study of geological materials run in counterpoint to each other: neither is primary but, rather, a knot within the larger tapestry of the environment. As Chapter Four describes, the specific stylistic details that Warburg traced as animating the depiction of a group of river gods in Manet's *The Luncheon on the Grass* (fig. 5d) reveal the enactive dimensions of the mind and perception of the painter coupled to the environment. The chapter highlighted three specific details of the transformation of this specific scene from its original depiction in the third century AD: their physical weight; the flatness and awkwardness of the composition of the image; and the ambiguous and 'unfinished' depiction of the environment. In this chapter, these 'enactive accessories' can now be read in terms of the affective dimensions of the energies and forces of deep time that impact upon the painter's body and mind expressed through gesture, thus becoming 'affective accessories'. Their study reveals the expressive nature of the affective dimensions of human activity that extends into the active and responsive meshwork, or environment, that always runs in counterpoint to the artist's bodily movements.

If Warburg's analysis of Manet's *The Luncheon on the Grass* (fig. 5d) is studied in the context of deep time, the details of the human figures depicted can be understood as affective, manifesting a trace or reminder of the embedded nature of the human body, whose trajectory runs in counterpoint to the meshwork of their environment. The details are, in some way, expressive of the meshwork's forces that 'affectively' penetrate the practitioner's body through being attended too. The depicted figures' direct address to the viewer, their physical weight and grounded postures, their gestures and focus of attention on each other and the viewer, rather than on the gods of Olympus (as in the early depiction) are details animated in part by a dynamic and emergent distributed 'pathos formula' – a way of acting within the world that is always immersed within the activity of other organisms, materials and objects that make up the environment. The human body is embedded in the distributed deep-time aspects of the Earth, firmly situated in the flows and forces of an active nature, and the flatness of the picture's planes echo this, literally 'flattening' out the hierarchy between the human figure and their energetic environment, and between the ontology of both, situating them as intermingled with each other, a part of each other, the form of one a counterpoint to the form of the other.

The move toward abstraction through the reduction of recognisable content in this example of modernist painting can be understood, in Deleuze's terms, not as an attempt to discover the material 'essence' of a medium, but to attain (or understand) a new emerging model of distributed sensation. The ambiguous presentation of the background of the work, the 'unfinished' nature of the brush strokes, the thickness of the brush strokes used to paint the detailed forms (fig. 5e) present the context of the characters in an ambiguous and unreal manner: they evade a definitive interpretation. These aspects of the painting represent a 'sterilisation' of the context, removing it from immediate recognition by the viewer and the artist, promoting a perceptual reflection. In the wider context of deep time, the specific stylistic tendencies that reduce the context of the scene do so as a reminder that the human body is impacted on by the affective, unknown forces rooted in the deep geological time of the late nineteenth century, as a way of exhibiting and coming to terms with such forces.

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Figure 5e has been removed due to Copyright restrictions.

5.6 Conclusion

The recognition that the phenomenological body's functions, experiences and activities are immersed in an active and responsive material world shows that what has been described as a 'meshwork' of trajectories and lines of 'becoming' is fundamental to an understanding not only of the development of the human body, but also of creative activity and how visual materials 'come to mean'. The distinction between 'human' and 'non-human' blurs, as what is understood as being 'human' is always in counterpoint to what is understood as 'non-human', the forces, energies and resistances of matter.

In understanding the mind, perception and creative activity as 'affectively' rooted within the forces, energies and resistances that impact on the body of the practitioner, 'brought forth' through movement, such forces can be more fully understood as expressed in images through their fusion with the practitioner's phenomenology and temperament. The affective details of Manet's transformation of the human figure (the nymph) illustrate how the transformation of the human figure depicted in painting or other visual materials over time reveals the expression of the phenomenological and environmental processes (or qualities) that underpin and run counterpoint to human gesture, expressed in part through the details of the figures depicted within images.

The reflections upon body, mind and creative practice undertaken in this chapter through the study of visual materials from the nineteenth century can be extended to all periods of human history, as all human history emerges within a meshwork of its own. A depiction is not only an expression of the depth of the phenomenological perception of the artist and the expressive perception of the viewer (as argued throughout this thesis), but is also expressive of the depth of the affective relationship with the meshwork that runs counterpoint. An accessory is an ‘affective accessory’ in two ways: first, as an expression of the affective dimensions of the environment, that underpin the gesture of the artist; secondly, as affective in the experience of the work — they modify the character of the perception of the viewer just as the viewer (affectively) modifies the character of the work (as Chapters One and Two have argued).

Chapter Six will synthesise these aspects which underlie how an image ‘comes to mean’ (and continues to become) by exploring what will be termed the ‘multidimensional depth’ of the image — the ‘bringing forth’ of an image, as well as the images’ meaning, through the knotting together of the phenomenological dimensions (or depth) of the artist, the phenomenological dimensions of the viewer, and the affective dimensions of the environment.

Chapter Six

The 'Multidimensional Depth' of the Image: Body-Environment-Artefact

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The trajectory of this thesis began with an analysis of a four-panel comic strip depicting a partially ambiguous kitchen together with a semi-ambiguous human figure (fig. 6) as an illustration of its central focus. To re-iterate, the thesis argues that the perceptual experience of such a material involves an unavoidable dialogue between the artist's phenomenological lived experience, as expressed in the details of the work itself, and the viewer's expressive, phenomenological experience. Such a dialogue results in how a work such as a comic strip begins, and continues, to 'come to mean'. The previous chapters have highlighted how the study of visual materials (such as the one above), particularly how they 'come to mean', entails a fuller account of the work's phenomenological depth, which reaches into the lived phenomenological experience of both artist and viewer that is coupled to the energies and forces of an affective and responsive environment.

In following this trajectory, the work of the chapters of this thesis culminates in what is now described as *the multidimensional depth of the image*, the features of which are described in more detail in this chapter. Within what Merleau-Ponty (1962) describes as a mind-body-world system*,* the *multidimensional depth* refers to a highly differentiated *force field* (of exchange and transfer), a meshwork, from within which an image emerges (or is brought forth) and is experienced; that is set up through the movement of a phenomenological body(s) running counterpoint to an active and responsive environment. A force field that encompasses different topologies and causal orders of the body, environment and matter through which visual materials are brought forth and continue to become *through* different contexts in which they are experienced.

The review of the literature undertaken throughout this thesis has revealed a central theme regarding the study of cultural artefacts (visual or otherwise): the gradual rejection of an anthropocentric, materialist, socio-cultural formal approach to the study of how visual materials mean.[113] This came to light particularly in Chapter Five, which provided an alternative method of analysis: a non-linear approach to human history (De Landa, 2000) recognising that the active processes of the human body, mind, and the creation of social and cultural artefacts run in counterpoint to the active processes of the environment – the energy flows between geological, biological and genealogical materials – a self-organising system that is decisively historical. Such a model of human history now provides a wider philosophical and theoretical context in which the study of how visual materials come to mean, through a revised understanding of three central notions: the *body*, the *environment* and the *artefact*. As the central focus of this thesis has been upon how these domains (the body, environment and artefact) are intermingled within a larger mind-body-world coupling, the description of these domains will not aim to define them separately, rather it will explain them through an intermingled discussion — *through* each other.

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[113] As seen at the start of the thesis, many approaches to the study of visual materials within art and design history and theory have focused primarily on the consumption of visual materials, using linguistic and semantic analysis, or social, cultural and economic network theories. As the work of Crowther (2013), among others, has demonstrated, to include the body shifts attention to the processes underlying the creation of the work, and includes the dimensions of phenomenology and perception in the experience of the works.

6.1 Body-environment-artefact

Within the context of a mind-body-world system, what is understood as an ‘artefact’ of culture takes on a specific meaning. Following the work of Ingold (2013) the term ‘artefact’ (material culture such as pots, baskets, tools) was seen in Chapter Five to refer to the processes of growth that ‘hardens’ to form the object, and not necessarily referring to a ‘designed artefact’ made by an intellectually agile human practitioner imposed upon an inert matter. Ingold’s (2010) thinking is now extended to more fully include visual materials, which are not ‘made’ but ‘grown’— brought forth within a field of forces and resistances that cut across the developing interface between the organism, environment and the materials being manipulated. This ‘growth’ of an artefact comes to express the strands of the meshwork within which it grows. Its form and style, as read within the depiction of human figures, in some way expresses the energy flows and transitions through which it is ‘brought forth’.

To begin to more fully study the energy flows that are expressed within visual materials, this thesis adapts the term ‘image’, accounted for within the critical literature that surrounds Aby Warburg’s writing, which refers to the study of a visual (or textual) artefact as a trace or crystallisation of the embodied, phenomenological, psychological and philosophical energies underpinning the practitioner’s bodily movement. In the context of this thesis an image refers to the materialisation of such energies; it is an expression of these energies, an expression studied through the details of the human figure in diverse cultural materials. As the last two chapters highlighted, when the phenomenological body is recognised as coupled to an active and responsive environment, the energies expressed in the image can be seen to extend beyond the dimensions of the body into the processes and energies (an energised matter) of the environment. As such, the term ‘image’ comes to refer to *an* *expression or crystallisation of the embodied and affective environmental energies comprising the organism-environment system that underpins the movement expressed in the details of the human figures the image depicts*.

De Landa’s (2000) and Ingold’s (2010, 2011, 2013) use of the term ‘meshwork’ refers to a deeper ecology and geology of the human body that is rooted in the geological, genealogical, biomaterial and environmental flows of energy transfer and exchange. This meshwork encompasses the trajectories of materials charged with forces and energies that are entangled (running counterpoint) to the trajectories of phenomenological bodies charged with subjective energies of their own. The term meshwork within the context of this thesis — within a mind-body-world system — refers to *a meshwork of forces and energies that flow through an entire self-organising organism-environment system, including the phenomenological body of the practitioner*. The meshwork of energy flow and transition in a self-organising organism-environment system constitutes the *multidimensional depth* of an image — *a phenomenological depth of the artist as coupled to the materials and flows of the forces of matter and ecological and environmental energy transfers*. The image emerges or is ‘grown’ through movement and activity that is animated by the processes and energy transfers of and between the phenomenological body and the environment. In this respect *the image is an expression, in some way, of the meshwork of flows of energies and forces constituting a mind-body-world system.*

The meshwork that comprises the *multidimensional depth* of the image also involves the active, expressive, phenomenological depth of the perception of the participating viewer, a perception that is expressive of his or her own existential phenomenological experiences. The experience of, or encounter with, the image itself is an expressive, a ‘reciprocal interaction and modification’ (Crowther, 2012). In this sense, the actualisation of an image is always ‘potential’ (Gamboni, 2000), in that *it requires the fusion of what is already expressed in the work (the multidimensional depth of the image) with the expressive potential in the perception of the viewer* — a reciprocal encounter that changes the character of both the perception of the viewer and the image.

Artefacts (or more precisely the processes of growth) such as visual materials, once grown, continue to become, continue to grow, modified through the expressive perceptual experience of the present viewer. They act, as Malafouris (2007, 2013) describes, as a platform for cognition and perception to further develop through the very experience of them, a ‘signature’ of an ongoing process of becoming. How an image means is always emergent, and so too is its historical context and development; it is constantly being reconfigured and re-written in the context of the current perception and inquiry through which new details, contexts and non-linear histories are revealed or rather brought forth through each and every viewing. An image has a non-linear history that is always in a constant state of ‘becoming’, as such what it is a ‘signature’ of is dependent upon how it is experienced.

How an image ‘comes to mean’ as an expression of *multidimensional depth* becomes particularly visible through its analysis; it is expressed in the style or details of the human figure depicted, fixed as a trace of the movement of the artist’s body running in counterpoint to the meshwork or environment. Chapter Four has shown that the style of an image, seen in its phenomenological framework, is an expression of a way of acting within the world, as Crowther (2013) reveals, it has a phenomenological depth that can be studied through the way the artist modifies the subject-matter through the medium — through their brushwork, compositional strategies and application of paint. This becomes visible through the experience of certain features such as the strange, ambiguous and ‘awkward’ style of the human figure depicted as well as (following the writing that described Warburg’s art historical method) the quality of line, the physical weight of the human figures and environmental forms, as well as the brushwork.

How the particular ‘style’ of an image comes to mean, in terms of its *multidimensional depth*, extends beyond an expression of the bodily-based phenomenological depth underpinning the artist’s movements and skill with the work (described by Crowther (2011, 2012)), to the expression of the transitions of energy flow (or ‘strands’) that comprise the meshwork or the environment in which the artist’s body is enmeshed; the geological, biological, material, social, phenomenological, multi-sensory, imaginary and experiential. The style of an image (the expression of the reciprocal activity of a subjective modification of subject matter) within the context of a *multidimensional depth* is *an expression of a phenomenological bodily movement that is intimately bound up with, and running in counterpoint to, an active and responsive environment that is expressed through the movement that renders the style of what is depicted*.

The non-linear model of the development of the human body, mind and human artefacts constructed in this thesis is not limited to any particular period in history. The nineteenth century discovery and development of the concept of deep geological time (described in Chapter Five) can be extended to any period, as the phenomenological body is continually moulded and shaped in counterpoint to the emerging environment. Such a framework can also cover the creation of all images and other cultural artefacts over time, revealing other kinds of multidimensional relations through the study of the human figures depicted within them.

The *multidimensional depth* of the image is at once philosophical, artistic, perceptual, phenomenological, anthropological, archaeological, genealogical and geological, it requires the weaving and threading together of the multiple dimensions of a self-organising model of reality that each of these disciplinary approaches brings into focus. The study of the *multidimensional depth* of an image focuses not on what an image means, but on how it 'comes to mean', by exploring the energy flows and transfers that result in, or 'harden' into, its form, details and style. Asking how an image 'comes to mean' in this way reveals the perceptual, cognitive and experiential development of a historically contingent and emergent way of acting in the world as part of a self-organising meshwork of relations, as revealed in the traces or 'expressions' left in its style and details.

6.2 Tracing the *multidimensional depth* of the image(s)

The following section undertakes a reading of the audio-visual and visual materials juxtaposed together that have been introduced throughout this thesis to reveal their *multidimensional depth*. These materials are juxtaposed together to study the human form presented by each of them, through an analysis of the details. The method undertaken thus follows the one undertaken within Aby Warburg's *Mnemosyne Atlas* — juxtaposing diverse images is used here to study, not the form of the works themselves, but the energies and tensions that result in that form – that is: the *multidimensional depth* of the images which is found in the differences, contradictions and tensions expressed through the style of the depicted figures. The way the *Mnemosyne Atlas* is used in this reading differs from the descriptions of Warburg's original intention, as described by Michaud (2007) and Rampley (1997, 2001); a way of studying the embodied 'pathos formula' of a period (the bodily-based energies, such as the psychologies, philosophies, beliefs and memories, of that period) that is fixed in the image. In contrast, the reading undertaken in this chapter focuses on a lived phenomenological experience that is coupled to the energy flows and transitions of a meshwork comprising geological, environmental and material forces.

The reading is undertaken through an 'aesthetic disclosure', using Crowther's (2013) phenomenological approach, through the perceptual experience of the juxtaposed works themselves. Recognising that such works always continue to 'come to mean' as part of the expressive perceptual experience of the viewer, the process of inquiry within this chapter attempts an analysis that does not intend to be exhaustive; rather, it explores the *multidimensional depth* of the juxtaposed images through tracing the possible non-linear histories of their development. This reading does not aim to add new knowledge to the histories of any of the works themselves, but rather to reveal, as a philosophical experiment, aspects of the *multidimensional depth* underlying how they come to mean. This is done to more fully appreciate these dimensions in the context of the study of the materials of visual culture for reflection within the discourse of graphic design. This reading does, however, aim to provide a new methodological approach to the study of such materials.

6.2.1 *The multidimensional depth of images*

The collection of visual materials used throughout this thesis are assembled and juxtaposed here in a *Mnemosyne Atlas*-style panel (fig. 6a). Visual and audio-visual material from between 1960 and 1970, drawn from across Europe and from different domains and practices, such as experimental and avant-garde film, advertising film and print advertising, each displaying contrasting ways of depicting human figures. The human figure, as it is represented across this collection of materials, is an 'aesthetically sterilised' or 'de-familiarised', anonymous and unusual form, presented from unusual points of view and in unusual or estranged contexts. The study of the animation of the details and style of the human figures reveals the *multidimensional depth* of these materials, a depth that extends into the phenomenology of both artist and viewer, as well as the affective dimensions of the environment.

Figure 6a has been removed due to Copyright restrictions.

The phenomenological depth (or presence) of the artist or practitioner is expressed through what cannot be visually represented: the relationship between the characters of the work that animates the depiction of their forms. This relationship is observable through the specific treatment of form and the sequence of shots, as in the portrayal of a conversation in a scene in the experimental film *Moses and Aaron* (1975) (plate D). The sequence of shots – and the angle of the camera – does not support the actual the conversation itself (the image track or narrative event), but rather the relationship between Moses and Aaron, which defies visual representation. The camera placement, with its extreme and unusually high angles and long shots supporting this relationship, paraphrases one event (the conversation) in a consequence of the event (the relationship); the resulting work (the unusual presentation of the human figure) expresses visually the un-representable phenomenological characteristic of the developing relationship between the two characters animated by the artist.

The phenomenological depth of the work – the relationship between the characters – that animates the filmic form of *Moses and Aaron,* also animates the formal structure and characters of the advertising film, *Music Teacher* (1968) (plate D). The construction of the shots and the presentation of the mise-en-scène support not the narrative events of the image track (the lesson), but the soundtrack of the work, which shifts from an out-of-tune run of chaotic notes to the rendition of part of Bach's *Air on a G-string,* a moment of calm. In this work, the rhythm of the image track (the formal sequence of shots) expresses visually a quality that the soundtrack expresses acoustically, an aesthetic shift from chaos to calm. The developing relationship between the teacher and his student is thus rendered sonorous.

The phenomenological relationships that animate the form and characters of film works, such as those of advertising and avant-garde cinema, are also of a different kind: they extend into the phenomenological depth of the presence of the active viewer. The figures' direct address to the viewer in several of the advertising films for cigars and light bulbs (plate C) breaks the illusion of a self-contained filmic space by including the viewer within the reality of the work itself. The film is thus animated by the viewer's presence as an active participant in the work – an active relationship that extends beyond the material form of the work into the depth of the phenomenological, reflexive, experiential and multi-sensory dimensions of the viewer.

This direct address to an active viewer continues throughout the form of presentation in the other juxtaposed visual materials. As Chapter Two argued, the phenomenological depth of the viewer always shares (Gombrich, 1964) in the perception of ambiguous and unusual visual ephemera. Such an image is always a potential one (Gamboni, 2000), requiring actualisation through the expressive perception of the viewer. What is not expressed materially, through the minimal, ambiguous or strange presentation of visual forms, is always present and expressed perceptually in the multi-sensory, phenomenological experience of the viewer. The materials shown here, drawn from avant-garde film, advertising film (plates D and G) and a print advert for Capstan cigarettes (plate E), present the human figure in an estranged, anonymous, unusual and ambiguous way, delimiting its details, as well as those of the context and mise-en-scène. The presentation of the human figure from an unusual point of view or in an ambiguous manner emphasises the extension of the work into the expressive, multi-sensory, experiential phenomenological depth (or the familiarity) of the viewer; the work itself always possesses a potential that can be only realised through the presence of the viewer.

Such a reciprocal relationship between perceiver and perceived is illustrated in Beckett's *Film* (1965) (plates A, B and I), in which the camera (or viewer) plays an active part in the choreography that takes place between the perceiver (the camera) and perceived (Buster Keaton), resulting in its filmic form. Beckett's work represents a human figure that exists in a constant choreography or 'theatrical game', poised between the expressive and active perceiving 'subjects' of both the camera and Keaton. They constantly respond to each other's movements, entangled in an endless choreography or dance of resistance and response (plate I). In this sense, neither Keaton's nor the camera's movements are independent: both can be seen to intimately respond to the other's activities and movements, in a dance or a play through which the final form of the film itself is produced as the material expression of the choreography or relationship that plays out between perceiver and perceived.

The choreographic relationship between what is expressed (the work) and an expressive perception (the perceiver), a phenomenological depth that structures the form of Beckett's *Film,* extends into another kind of depth, that of the affective objects of the environment and Keaton himself. As Keaton attempts to escape the perception of the viewer/camera, his movements also respond to an all-perceiving environment of objects, animals and images (plate A). A piercing and relentlessly direct address from the image of a staring God, Keaton's reflection in a wall mirror, the gaze of a caged bird and the fixed 'stare' of the craftsmanship of a chair back all cause him to recoil, to try to avoid or cover up these agents that directly impact on his movement and activity. This affective relationship that is played out between Keaton's movements, the always-perceiving environment and the camera/viewer is expressed in the human figure, Keaton himself, whose movement and activities run in counterpoint, not only to others and visual materials, but to the forces, tensions and resistances of the material artefacts of the world; a human figure that is animated by an awareness of being impacted on and perceived by, and of responding to, the affective and responsive dimensions of the environment.

The affective relationship(s) between the wider contexts of the environment as it impacts on human activity is rendered visible, or expressed, through movement; it animates the figures represented in the juxtaposed materials, each displaying a different kind emphasis according to the context in which the human figure is depicted. The advertising films for Hamlet cigars and Amstel beer (plates D and G) de-familiarise the environment (or context), which, in some cases, is not depicted in the scene at all. The movement and activity of the figures, such as the music teacher, are animated by what is materially absent – the context – which is only hinted at through movements such as a gaze directed outside the top right of the frame. In this way, the materially absent context is expressed as present in the form of the work as a force or energy animating the gestures of the figure from outside the frame.

The materially absent context or environment is expressed in these works in another way. In the advertising films for Hamlet cigars, Amstel beer, Phillips lights and Philips portable televisions (plates D and G), a low-angle shot is used in which the human figure is estranged through their presentation from a strange and unusual viewpoint, along with the context surrounding the figure. The sparse and unusual presentation of the mise-en-scène – white space and partially depicted objects – ‘aesthetically sterilises’ the context, reducing what is recognisable, and priming the potentiality of the image for actualisation through the phenomenological depth of the viewer. In this regard, the materially absent context, through its delimitation or absence, is perceptually present (Noë, 2005) in the expressive experience of the active viewer. The context that surrounds the human figures in these works is de-familiarised, or 'made strange', in order to present to the perception the form-giving processes of the environment or context that are expressed in the human figure. Just as Merleau-Ponty (1964) declares in relation to the painted figure, the environment is given visible expression through the depiction of the human figure, which awaits further reflection by the artist, filmmaker and viewer.

These examples of mid-twentieth century visual culture reveal to perception and reflection the embedded nature of the human body, and its movement and activity, in an active and responsive material world – that is, in its context or environment. The development of the human figure depicted across these works is one in which the domains of the human and non-human, the boundaries of the body and the environment, begin to blur and cross. The *Amstel Bier* advert (plate H) begins by depicting a silhouetted figure emerging from a background of white space, with the boundary of the positive image of the human figure defined by the negative space, and vice versa. This symbiosis of the human body and the active affective aspects of the environment are also expressed in a print advert for Capstan cigarettes (plate E), in which the human figure is de-familiarised by presenting it as a collection of cigarettes that take the form of a face smoking a cigarette. The boundary between what is smoking and what is being smoked dissolves, the only recognisably human features – an eye, eyebrow and mouth – are presented as simple lines and circles emerging from a background of white space and smoke.

The human figures depicted in these diverse visual materials present an expression of a multidimensional depth that extends into the phenomenology of the artist and the viewer, as well as into the affective depth of the materials, the flows and forces of the objects of the environment. Juxtaposed in this way, these materials each reveal an aspect of the multidimensional depth of the meshwork in which they are all created, a meshwork of mid-to-late twentieth century Europe that includes the depth of the artist, the viewer(s) and the environment. The sterilised and de-familiarised style of the image, of both the human figure and its context, that is found in these materials is a momentary materialisation or ‘hardening’, to use De Landa’s (2000) term, of the ongoing self-organisation of reality; it is a momentary revealing of what Ingold (2000) describes as the constant weave of reality. In this respect, these juxtaposed works are all a trace or expression of a multidimensional depth, a meshwork that extends across the development of the body, mind and perception of their artists, filmmakers, illustrators and viewers and into the materials, objects and artefacts of their environment. The *multidimensional depth* of the human body, mind and activity is expressed in the material artefacts themselves through their style of presentation of the human figure, one in which the domains of the human and the material world blur into each other. The materials present, in many ways, a human figure that is fragile, malleable, dwarfed by the context of the environment and its distributed processes and materials. These works express an imaginary that animates their form, one that is shared by the artist, designer or filmmaker who expresses them, as well as by the audience or viewer(s) who experiences them.

Chapter Seven

Conclusions and Further Research

The thesis began by asking how the materials of visual culture, particularly within the context of graphic design, come to mean in terms of a complex relationship between the embodied experience of the artist and the embodied experience of the viewer as coupled to an affective environment. This question was posed so as to 'thicken' the study of visual materials within a graphic design context by, in the first instance, moving away from the framework of established models of *communication* to one of phenomenological *expression*. In order to make such a shift, visual materials must be studied as an embodiment or, more precisely, an expression of a way of acting within the world – an analysis in which the work is understood as an expression, not only of the phenomenological depth of the body of both the artist and viewer, but also of the affective dimensions of the material environment in which the phenomenological body is immersed. This expression does not stop at the level of the creation of the work, as the viewer's experience of the work is also expressive. The work is thus always 'becoming', its meaning reframed by how it is experienced; it 'comes to mean' through a constant process of co-construction and modification, involving the phenomenological perceptual experience (or depth) of the viewer.

Where graphic design's study of visual communication adopts communicative, linguistic and semantic models of meaning-making to underpin its theoretical and academic tradition of analysis, as outlined in the introduction to the thesis, it does so at the expense of a fuller understanding and recognition of the crucial existential phenomenological dimension of human experience, which extends across bodily-based movement and activity to the active and responsive environment in which this experience is immersed. In graphic design theories, the activity and experiences of the bodies of the designer and the viewer, and the complex relationship between the body, perception and the work, tend to be idealised. Images of popular visual culture, within a graphic design context, are more than linguistic, semantic and communicative objects, as this thesis demonstrates, they are also 'expressive objects' — a trace or expression of the movement of a phenomenological body, the development of mind and the environment in which the phenomenological body is always immersed. Images are an historical trace of the ongoing development of reality; they carry weight as historical, archaeological and philosophical objects.

In focusing primarily on the consumption of visual materials (through communicative and semiotic analyses), graphic design's theory of visual communication cannot fully appreciate the ontological integrity of images as a part of an organism-environment system. Images of graphic design are more than the successful communication of a given message as a part of a design brief. Their vitality and ontogenesis runs a lot deeper than that of a semantic process of reconstruction in a socially embedded model of consumption. They are an expression of the dynamic and ever-changing nature of human perception, cognition, imagination and bodily experience that is immersed in an environment that is itself always 'becoming'. Images are an expression of an entire historically contingent and constantly changing reality. Rather than communicating messages, as communication theories of language maintain, images express the plurality of existing and possible worlds; they represent a potential (Gamboni, 2000), providing a platform or space for its actualisation in the expressive perceptual experience of them.

When images carry import as part of a multi-dimensional, relational ontogenesis, the responsibility of the creative designer becomes more apparent – not just to fulfil a brief or to communicate messages and meanings, but to more fully recognise their active part in the very ‘bringing forth’ of a reality. Whereas design focuses attention on social change and the co-construction of meaning through the consumption of designed artefacts (Barnard, 2005; Krippendorff, 2006), a far deeper process lies under its social surface, one that has a hand in the much larger process of world-making. Graphic design would benefit from the ideas of philosophers, media archaeologists, archaeologists and anthropologists to give depth to the ideas of its theoreticians and practitioners, not necessarily in the service of how design is currently comprehended, but to re-think what it means to ‘design’. Graphic design requires the existence of the speculative and the philosophical, the radical, the potential and the possible, alongside the practical and commercial.

This deepening of graphic design theory would begin outside the inherited socio-cultural art and design history that seeks to describe designed materials in terms of design agendas or socio-political frameworks (Meggs and Purvis, 2006; Lupton and Miller, 1993). An orthodox history of art and design is a materialist, textual and human-centred history – one that, as Shryock and Smail’s (2011) concept of ‘deep human history’ maintains, cannot describe the relational aspects of human activity immersed in an environment. The very artefacts of culture themselves are historical documents that contain the potential to reveal the deeper relations of human experience, mind and history – a history that is relational and non-linear (De Landa, 2000) and, at one and the same time, archaeological (Malafouris, 2013), phenomenological (Crowther, 2013), geological (Shryock and Smail, 2011), genealogical and philosophical. Designed artefacts, specifically visual materials, are a crucial historical ‘document’ for the study of a non-linear human history, and give current archaeological and anthropological approaches to the study of human history a fundamental depth and weight.

A non-linear, deep history of design would begin by juxtaposing its theoretical materials with those of art history, archaeological history, genealogical history, the history of the mind and perception, and the history of painting and aesthetics, as well as geological history. This non-linear history would also be non-hierarchical, with no one discourse claiming priority over the others; rather, each 'layer' of reality that is described by each discourse is one among many layers that rely on each other and together constitute a plural reality. Such a non-linear history would not, however, discard linguistic, social and cultural histories, but rather, as in De Landa's (2000) work, lend them added depth by giving them a place as part of a larger meshwork of other histories of geological change, biological transfer and genealogical shifts. In this meshwork's processes and energy transfers, the social, cultural and political histories that underpin art and design would be re-configured through the inclusion of the micro-histories of the body, phenomenology, and matter, materials and the environment.

More recent contemporary strands of cultural studies, such as Coole and Frost's *New Materialisms* (2009), as well as the broader literature within which they are situated,[114] provide a revised notion of the political and cultural that takes into account the domains of the corporeal and the material in the constitution of human artefacts, and by extension the human institutions in which they are created. In this context, Nigel Thrift's *Non-Representational Theory: Space, Politics, Affect* (2008), provides a non-representational approach to the study of the humanities that proceeds from the process philosophy of Deleuze, resituating the conventional notions of representation, perception and human practice (which underpin the discourses of the social and political) within the Deleuzian theory of ‘affect’. In the same vein, Jane Bennett’s *Vibrant Matter* (2009) questions the notions of ‘discourse’ and ‘knowledge’ that she claims focus too exclusively upon the domain of the human agent. Instead of focusing on ‘collectives’, conceived primarily as conglomerates of human designs and practices, which she identifies as the conventional meaning of ‘discourse’, Bennett argues for recognition of the active role of non-human materials – that is, the power of ‘vibrant’, active objects to affect human activity throughout public life.[115]

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[114] Particularly the work of Donna Hardaway (2007), Jane Bennett (2009), and what has been described as the 'post-humanities' movement in the Minnesota Press, pioneered by the work of Isabelle Stengers (2010, 2011)

A revised or deeper graphic design history and theory, therefore, would begin with the notion of a non-linear history, one that is geological, phenomenological and archaeological, in order to re-configure its own theoretical and philosophical heritage in wider philosophical and disciplinary contexts, putting the artefacts themselves at the centre of analysis rather than the socio-cultural networks in which the artefacts are created. Design academics, practitioners and theorists should undertake the task of re-configuring, or deepening, the received history of design in a way that is archaeological, anthropological, geological and phenomenological – reading *through* artefacts rather than *about* them. In this way, design history and theory could, as Alesina and Lupton (2010) demand, begin to take account of the active dimensions of materials and materiality in the properties of stone, wood, metal, paint, paper and clay as they intermingle with the activity of the practitioner’s body.

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[115] These approaches also echo, and utilise, the influential scholarship in the social sciences drawn from actor-network theory (ANT), primarily the work of Bruno Latour. Latour’s *Re-assembling the Social* (2007) and *We Have Never Been Modern* (1993) underpin many of the approaches in contemporary humanities that seek to redress the balance between human and non-human, society and science, and nature and culture. Such literature offers a renewed sense of the geographical and theoretical boundaries of the ‘political’ and ‘social’ – complementary to the idea of the ‘multidimensional depth’ of images put forward in this thesis – with which to reintroduce the political and social dimensions underlying the development of the materials of art and advertising.

The literature ranging across cultural anthropology and the 'material engagement theory' of archaeology provides rich ground on which to situate the domain of materiality in order to study crucial aspects of the development of the human mind and creative human activity. In particular, Christopher Tilly's *The Materiality of Stone* (2004) provides an account of the phenomenological relationship between the practitioner and the materiality of stone in the creation of historical objects in the landscape, such as Neolithic monuments. Ian Hodder's *Entangled: An Archaeology of the Relationship Between Humans and Things* (2012), meanwhile, provides a revision of the relationships between objects and humans, as well as between objects themselves, and reveals how the very materiality of everyday objects 'catches' a human practitioner in an entanglement of immaterial dependencies which impact on the development of the human mind and activity.

Situating the study of the development of visual materials within this corpus of literature would shift its focus to the multidimensional relationships between practitioner and materials that underpin an artefact's creation: the materiality of paint in the activity of painting; the materiality of clay, putty and other malleable substances; or the materiality of pen, charcoal, paper and ink.[116] James Elkins' *What Painting Is* (2000) provides a vocabulary with which to describe the artist's intimate relationship with the material of paint: he describes this relationship as an 'alchemy', bringing the chemical structure, smell and thickness of the substances used by the painter to the fore in the study of an artwork. More recently, some studies in the discipline of design have attempted to understand the active dimensions of the properties of matter and the materials used in creative practice, and how they affect human cognition, creativity and intuitive ‘designerly’ practice (Lupton, 2008). The author of this thesis has taken a philosophical step in this direction with a paper entitled, ‘Being Through Painting and Weaving: A Brief Commentary on Intuition’ (see Appendix 3), which uses the writings of Klee (mentioned briefly in this thesis) to propose a philosophical approach that would enable a more nuanced discussion of the active energies of matter, materials and the wider cosmos underpinning the human activity and movement involved in the creation of lines, images and material artefacts.

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[116] It is also important not to overlook the wealth of literature in film studies and film theory which foreground the materiality of film in the practice and study of film form. Experimental and structural filmmakers such as Malcolm Le-Grice and Peter Gidal, as well as the Brechtian lineage of experimental filmmaking surveyed briefly in this thesis, provide a useful lens through which to study other creative practices.

Just as deep human history, cognitive archaeology, anthropology and phenomenology put the emphasis on the domains of artefacts and materials, regarding them as part of the cognitive and perceptual evolution of the human mind, so too should design. Just as phenomenology recognises the experiential, multi-sensory, subjective aspects of human experience as playing a co-constructive role in the creation of visual materials, so too should design. Just as anthropology recognises that human activity is not human-centred, that intention, design and creative activity is a more complex process, so to should design. Just as phenomenological film theory recognises the experience of works as expressive, so too should design. Just as Warburg recognised that images are a trace, or crystallisation, of a historically contingent way of being in the world, so too should design. Whereas film and painting have amassed a strong critical and theoretical grounding, graphic design’s critical and academic voice is still in its infancy – it was called into action during the 1990s (Bierut *et al*., 1995) and has remained primarily rooted within post-structuralist discourses (Lupton and Miller, 1999). Design has a chance to begin to mature by shedding the hegemony of language and re-thinking its theoretical and philosophical heritage through deepening the understanding of what it means to do design. In order to do so, it should begin by asking more fundamental ontological questions about the nature of the practice, asking not what design may mean but rather how design has and continues to 'come to mean'.

Graphic design would benefit from a mutual collaboration with other discourses, such as those of archaeology, anthropology and art history, as a way of deepening its own intellectual heritage. Where this undertaking may already be taking place, the mutual collaboration would not simply focus on the incorporation or adoption of other methods and techniques in order to expand its own agenda, but would provide the opportunity to reflect on the inherited axioms of the history of design itself. Archaeological notions akin to 'material engagement theory' (Malafouris, 2013) and revised historical approaches such as that of deep history (Shryock and Smail, 2011) provide a contemporary archaeological approach that can be brought to bear on the study of the history and theory of design. The result would be a 'deep history' of design that reconfigures the inherited nineteenth-century philosophy by placing the domain of materials at the centre of analysis through a renewed scientific and philosophical approach to design. In turn, design and the visual arts could offer a renewed voice to archaeology through the inclusion of subjectivity, the concept of the imaginary and the multi-sensory realms of experience.

The archaeological and geological approaches to human history and creative activity point to the importance of widening the theoretical and philosophical heritage of the late nineteenth century, and particularly to recognition of the plurality of 'modernisms' that arose during this period. Gamboni (2000) brings a psychological and experiential depth to the visual arts, while Shryock and Smail (2011) provide a geological and archaeological revision of history; both shift attention away from rational human history to a history of the relational and environmental. The work of De Landa (2000) and Ingold (2011) provide anthropological and non-linear approaches to this task. In this context, Rosalind Krauss and Yve-Alain Bois in their work of art history, *Formless: A User's Guide* (1997) and David L. Martin's *Curious Visions of Modernity: Enchantment, Magic and the Sacred* (2011) attempt to reclaim the visual from the postulates of a scientific modernism in the study of cultural artefacts by appealing to the unconscious, magical and phenomenological.

Both the works of Krauss and Martin take their methodological lead from the literary theorist George Bataille's notion of the 'formless',[117] described in his *Documents 1* (1929), which presents the study of artistic and cultural artefacts in terms of the heterogeneous aspects of culture – that of the spiritual, unconscious, magical, enchanting and sacred – that are belittled, forgotten or repressed by a homology of rational and scientific thinking. Krauss' and Bois's, and Martin's, use of the term 'formless' shifts the focus from the exclusive study of form to the tracing of the formless: that is, the heterogeneous, unconscious and metaphysical processes that result in form and that are not reducible to socio-cultural or scientific analyses. The inclusion of the writing of Klee in the later chapters of this thesis provides the thread by which the study of the metaphysical, formless approaches of Krauss and Bois, and Martin, can be woven into the context of graphic design.

The extent of Klee's metaphysical and process-orientated account of the human and human creative activity during the late modern period, revealed through the writing of Deleuze (1981) and Merleau-Ponty (1964), which support Klee's writing, teaching and work, is not fully accounted for in graphic design studies and history. Although Klee’s famous dictum (art does not render the visible, but renders visible the invisible, energetic processes of the body, atmosphere, environment and matter that give rise to form) is found within his teaching notes during his time within the Bauhaus ([1956] 1961, p. 76) his contribution to the history of design is conventionally situated in the ideology of the functionalist turn of the Bauhaus (Lupton and Miller, 1993, 1999) imposing an ideological frame onto his visual experiments. The deepening and widening of the geographical and theoretical boundaries of the early twentieth century provided by this thesis facilitates a re-reading of the thought of artists and designers such as Klee in their own terms, in ways that underpin many aspects of the history and theory of design, including that of graphic design and visual communication.

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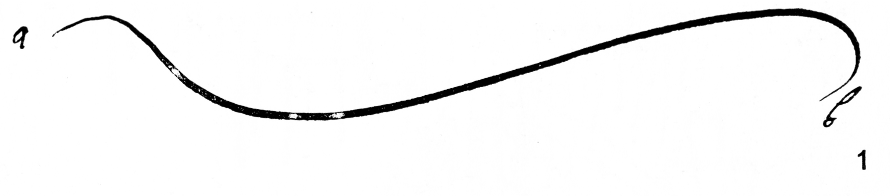
[117] "A dictionary begins when it no longer gives the meaning of words, but their tasks. Thus formless is not only an adjective having a given meaning, but a term that serves to bring things down in the world, generally requiring that each thing have its form. What it designates has no rights in any sense and gets itself squashed everywhere, like a spider or an earthworm. In fact, for academic men to be happy, the universe would have to take shape. All of philosophy has no other goal: it is a matter of giving a frock coat to what is, a mathematical frock coat. On the other hand, affirming that the universe resembles nothing and is only formless amounts to saying that the universe is something like a spider or spit." (Bataille, [1929] 1985, p. 31)

Applying a more focused re-reading of Klee’s writing in the wider philosophical and theoretical context of the early twentieth century would illuminate an aspect of the deeper history and development of the discourses of design during this period – as entangled across other discourses, philosophies and practices. An archaeological, anthropological and philosophical design history that proceeds not solely from the intentions of a design agenda as found in the written documents of its practitioners and thinkers (for example, the positivist history of design found in the functionalist turn of the Bauhaus), but from a study of created objects and images that traces within them the multidimensional depth of the human mind (as Shryock and Smail (2011) do in their revision of historiography).

The approach to the study of the materials of visual culture provided by this thesis allows for a fuller discussion of the multidimensional image. In the same way as the work of Klee provided an impetus for this thesis, such a revision would begin to take seriously the multidimensional depth of the human body, mind and creative activity as an object of study, as well as the visual materials created within the multidimensional depth that underpin the development of design history and theory.

Coda

On the Line: A Philosophy of Design



> The Point is cosmic, a primordial element. Things on earth are obstructed in their movement; they require an impetus. The primordial movement, the agent, is a point that sets itself in motion (genesis of form). A line comes into being. … [The] active line develops freely. It goes for a walk, so to speak, aimlessly for the sake of the walk. (Klee, [1964] 1970, p. 105)

Klee, in his notebooks, describes the process – which begins shortly after the application of a pencil or, indeed, any other pointed tool – of a line coming into being. From the point to a line requires dynamic movement from point A to point B. All things on earth are obstructed in their movements. Each force or movement always requires an opposing force; these resistances, tensions and impetuses are the oppositions that beget dynamic movement. By musing on a simple line, a multi-dimensional and 'formless' understanding of reality opens up to the artist.

Movement requires impetuses or forces from both within and without. Klee conceived of the growth of a line as analogous to the growth of a seed, in which the impetus to grow is not confined to the boundary of the organism's skin, but is also external – an impetus that arises from the organism's relationship with the earth and the atmosphere (Klee, [1964] 1970, p. 29). The nervous system of a seed has extensions into the air and space and deep into the soil: seed, air, space and soil are interdependent. In the same way, in developed organisms, the functions of nutrition and respiration are interdependent. A broader nutritional base gives rise to large respiratory organs, while greater breathing space enlarges the nutritional organs (p. 31). The nutritional value of the environment allows the organism's structure to grow and enlarge, and this growth, in turn, requires greater nutrition, relying upon new sources of nutritional value. The impetus to grow is thus neither exclusively internal nor external; it is both.

The line develops in its own time, through the processes that give it form: the line goes for a walk, for the sake of the walk. In reading, the eyes follow the same path. The line's 'walk' emerges through dimensions so numerous and of such importance that a line, mark or image is not wholly a construction, it is a rather a composition (Klee, [1948] 1964, p. 43) – a composition of multi-dimensional form-giving processes bearing down on the movement that 'brings forth' the line. Art, lines and images, for Klee, do not render the external visible word, but rather render visible the multi-dimensional form-giving processes, and the oppositions, resistances and tensions, emanating from both the body and the material world, within which movement is entangled. An insistence upon the study of form in isolation severs its vital connection to the multi-dimensional form-giving processes that gave rise to it.

Lines are metaphysical and physical, cosmic and environmental, physical and gestural; they are an expression of form-giving processes that are contextually and historically contingent. The line, just as the seed, is 'grown' through energetic and metaphysical processes simultaneously belonging to different and multiple dimensions: the dimensions of the optical, physical and cosmic; of the body, mind, pencil and canvas; of the air and atmosphere. The thickness of the paper or canvas, the brittleness of the pencil, the temperature of the room, the ambient sounds, the temperament or fatigue/energy of the body – all these are a meshwork of metaphysical ‘desires’ or energetic forces, a composition of energetic potentials, a weaving together of lines of ‘becoming’ (Deleuze, 1981). Klee places value in these form-giving processes or entanglements of lines that take the nervous system beyond the boundary of the body and across the multiple dimensions of reality.

Figure 7 has been removed due to Copyright restrictions.

For Klee ([1964] 1970, p.53), the artist (or organism) is so immersed in a meshwork of energetic lines of force and power that a representation of the artist as they really are would result in such a “bewildering confusion of line” the depiction would be almost beyond recognition. The processes of the body, cosmos, air, water and soil extend the nervous system of the artist, and their movement, activity and creativity, along invisible lines that cross multiple dimensions. The *Ph* of the human nervous system (fig. 7) – a mixture of chemicals that resolve into a stable solution – is one among many mixtures of processes that exist in multiple dimensions, flowing beyond the confines of the skin and the skull, beyond even the confines of the image as it attempts to capture them. Such a bewildering confusion of lines, or entanglement of form-giving processes, is so complex that pure elementary representation cannot do its complexity justice.

Klee’s bewildering confusion of lines is a non-linear account of the human body, a body that ‘becomes’ out of an entanglement of many dimensions of reality – the metaphysical processes of the body, the environment, the atmosphere and the cosmos. A history of the line is also non-linear. According to Klee (1948, p. 45), the artist, creator or practitioner is a philosopher, not a realist critic who places intense importance upon the critique of the final form or on the study of the ‘best’ possible world, the ‘best’ possible representation of nature or natural forms. The artist places value instead on the powers that do the forming, holding this world to be but one among many possible ones – a world that undergoes ‘Genesis eternal’, never complete, ‘always becoming’ (p. 45). On other stars, creation – as a form-giving process – may have produced different results. Creativity itself produces many worlds. So too do artists.

Klee ([1964] 1970, p. 269) constructs an “elementary theory of creativity”, in which human subjectivity is but one of many impetuses that form the creative process of the painter or practitioner. Bodily subjectivity is immersed in the active and responsive processes of the environment. Klee focuses not on the final form of a work, but on the very creative processes of ‘form-giving’, which include energies and forces that are seemingly external to the human body, yet, also penetrate it. The body’s movement and growth, and those movements that result in depiction, are open to penetrating and form-giving forces that are not of the body, in much the same way as the complex forms of Klee’s ‘sand figures’ emerge from the process of running sound waves through layers of sand.

The designer – as a creator, philosopher and artist – should also place value on the processes that give rise to form. Design, as an activity, as movement put into motion, is not simply a process of imposing a form, an idea, upon matter, nor does it comprise the communication of a message ‘contained’ within the form. The movements that result in the designed form require many impetuses, encounter many resistances and frictions, and have multiple extensions into the air, soil, atmosphere and cosmos. The act of a designed creation is thus a lot more complex and unpredictable than is conventionally assumed. The creation of a design is not wholly about form, but about the form-giving processes that result in the form; and within the form itself, the form-giving processes continue to meet the processes through other perceptions, other bodies and other environments. For Klee, the modern insistence upon the study of pure form severs it from the vital and metaphysical form-giving processes that give rise to it, as well as those that continue to animate it – the processes, resistances and forces of dimensions that are not wholly of the body, but of the environment, the soil, the atmosphere and the cosmos.

For Klee, the study of form is death. The study of *form-giving* is life.

Life for Klee is *formless*.

So is creativity.

As is design.

Bibliography

Abram, D. (1997) *The Spell of the Sensuous: Perception and Language in a more than Human World*. New York: Vintage.

Agamben, G. (1999) *Potentialities: Collected Essays in Philosophy*. Translated by Heller-Roazen, D., Reprint, California: Stanford University Press.

Alesina, I. and Lupton, E. (2010) *Exploring Materials: Creative Design for Everyday Objects.* Princeton: Princeton Architectural Press.

Ambrose, D. (2006) '30,000 BC: Painting Animality: Deleuze and Prehistoric Painting', *Journal of the Theoretical Humanities*, 2.2. pp. 137-152.

Arnheim, R. (1969) *Visual Thinking*. Reprint. Los Angeles, London: University of California Press, 1997.

Arnheim, R. (1957) *Film as Art*. Reprint, Los Angeles, London: University of California Press, 1997.

Arnheim, R. (1954) *Art and Visual Perception: A Psychology of the Creative Eye*. 2nd edn. Los Angeles, London: University of California Press, 1974.

Armstrong, H. (2009) *Graphic Design Theory: Readings From the Field*. New York: Princeton Architectural Press.

Bacci, F. and Melcher, D. (2011) *Art and the Senses*. Oxford: University Oxford Press.

Barbatsis, G. and Kenney, .K and Moriarty, S. E and Smith, K. (eds) (2005) *Handbook of Visual Communication: Theory, Methods, Media.* London: Lawrence Erlbaum Associates.

Barker, J. (2009) *The Tactile Eye: Touch and the Cinematic Experience.* California: University of California Press.

Barnard, M. (2005) *Graphic Design as Communication*. London, Routledge.

Bartlett, F.C. (1923) *Psychology and Primitive Culture.* Cambridge: Cambridge University Press.

Bartlett, F.C. (1920) 'Some Experiments on the Reproduction of Folk-Stories'. *Folklore*, vol. 31 (1), pp. 30-47.

Bateson, G. (1972) *Steps to an Ecology of Mind*. University of Chicago Press edn. Chicago: The University of Chicago Press, 2000.

Bataille, G. (1983) *Manet.* London: Macmillan.

Bataille, G. (1970) *Visions of Excess: Selected Writings 1927-1939*. Translated by Stoekl, A., Reprint, Minneapolis: University of Minnesota Press, 1985.

Baudry, J.L. (1975) 'Ideological Effects of the Basic Cinematographic Apparatus', in Nicholls, B. (ed) 1985, *Movies and Methods Vol 2*. Los Angeles: University of California Press.

Beardsley, M. (1965) 'On the Creation of Art', *The Journal of Aesthetics and Art Criticism*, Vol. 23, No. 3, pp. 291-304.

Becker, C. (2013) 'Aby Warburg's Pathosformel as Methodological Paradigm', *Journal of Art Historiography*, No. 9, pp. 1-25.

Bennett, A. (2006) *Design Studies: Theory and Research in Graphic Design, A Reader*. New York: Princeton Architectural Press.

Bennett, J. (2010) *Vibrant Matter: A Political Ecology of Things.* Durham, London: Duke University Press.

Bergson, H. (1911) *Matter and Memory*. Translated by Paul, N.M and Palmer, W.S., Reprint, New York: Cosimo, 2007.

Bergson, H. (1911) *Creative Evolution*. Translated by Mitchell, A., Reprint, New York: Dover Publications inc, 1988.

Bearne, G. (2000) 'Staging Authenticity: A Critique of Cavell's Modernism', *Philosophy and Literature*, 24, pp. 294-311.

Bierut, M. and Drentrel, W. and Heller, S. (eds) (2007) *Looking Closer: Book 5 Critical Writings on Graphic Design*. New York: Allsworth Press

Bierut, M. and Drentrel, W. and Heller, S. and Holland D. K. (eds) (1995) *Looking Closer: Critical Writings on Graphic Design*. New York: Allsworth Press

Blassnigg, M. and Punt, M. (2013). 'Transdisciplinarity: Challenges, Approaches and Opportunities on the Cusp of History', *SEAD* [Online]. Available at: http://seadnetwork.wordpress.com/seed-questions-for-sead-report/ (Accessed: 20 August 2013).

Blassnigg, M. *et al* (eds) (2013) *Light Image Imagination*. Amsterdam: Amsterdam University Press.

Blassnigg, M. (2009) *Time, Memory, Consciousness and the Cinema Experience: Revisiting Ideas on Matter and Spirit*. New York: Rodopi.

Boivin, N. (2008) *Material Cultures, Material Minds: The Impact of Things on Human Thought, Society and Evolution*. Cambridge: Cambridge University Press.

Bonta, M. and Potrevi, J. (2004) *Deleuze and Geophilosophy: A Guide and Glossary*. Edinburgh: Edinburgh University Press.

Bordwell, D. (1993) *The Cinema of Eisenstein*. London: Harvard University Press.

Brookes, R.A. (1991) 'Intelligence Without Representation', *Artificial Intelligence* Vol 47, pp. 139-159.

Bryson, N. (1989) *Vision and Painting: the Logic of the Gaze.* Yale: Yale University Press.

Buchanan, R. (2001) 'Design and the New Rhetoric: Productive Arts in the Philosophy of Culture.' Philosophy and Rhetoric, Vol. 34, (2001) pp. 183-206.

Buchanan, R. (1985) 'Declaration by Design: Rhetoric, Argument, and Demonstration in Design Practice', *Design Issues*, Vol. 2, No. 1 (Spring, 1985), pp. 4-2.

Buchanan, R. (1992) 'Wicked Problems in Design Thinking', *Design Issues*, Vol. 8, No. 2, pp, 5-21.

Burke, C. (2009). 'Isotype: Representing Social Facts Pictorially', *Information Design Journal*, Vol. 17, No. 3, pp. 211-223.

Bullington, J. (2013) *The Expression of the Psychosomatic Body from a phenomenological perspective.* London: Springer.

Butler, G., and McManus, F. (1998). *Psychology: a Very Short Introduction*. Oxford: Oxford University Press.

Cain, P. (2010) *Drawing: The Enacted Evolution of the Practitioner*. Chicago: Intellect.

Chion, M. (1990) *Audio-Vision: Sound on Screen*. Translated by Gorbman, C., New York: Columbia University Press, 1994.

Chion, M. (1982) *The Voice of Cinema*. Translated by Gorbman, C., New York: Columbia University Press, 1999.

Coleman, F. (2010) *Film, Theory and Philosophy: The Key Thinkers*. Durham: Acumen.

Clark, A. and Chalmers, D. (1998) 'The Extended Mind', *Analysis* 58, 1, pp. 7-19.

Clark, A. (2011) *Supersizing the Mind: Embodiment, Action, and Cognitive Extension.* Oxford, Oxford University Press.

Clark, A. (2008) 'Pressing the Flesh: A Tension in the Study of Embodied, Embedded Mind?' *Philos Phenomenol Res*, 76, pp. 99-107.

Clark, A. (1998) *Being There: Putting Brain, Body, and World Together Again.* Cambridge, London: The MIT Press.

Clark, T. J (2001) *Farewell to an Idea: Episodes from a History of Modernism*. London: Yale University Press.

Colebrook, C. (2002) *Gilles Deleuze*. London: Routledge.

Coleman, F. (ed) (2009) *Film, Theory and Philosophy: The Key Thinkers*. Durham: Acumen.

Connor, S. (ed) (2004) *The Cambridge Companion to Postmodernism*. Cambridge: Cambridge University Press.

Coole, D. and Frost, S. (2010) *New Materialisms: Ontology, Agency, and Politics*. Durham, London: Duke University Press.

Cowen, M. (2012) *Technology's Pulse: Essays on Rhythm in German Modernism*. London: Igris.

Cowen, M. (2010) 'Advertising, Rhythm, and the Filmic Avant-Garde in Weimer: Guido Seeber and Julius Pinschewer's Kipho Film', *October*, 131. pp. 23-50.

Crary, J. (2001) *Suspensions of Perception: Attention, Spectacle, and Modern Culture*. London, Cambridge: MIT Press.

Crary, J. (1992) *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century*. London, Cambridge: MIT Press.

Crawford, L. (1984) 'Viktor Shlovskij: Différance in Defamiliarization', *Comparative Literature*, 36, 3. pp. 209-219, Oxford: Oxford University Press.

Crilly, N. (2008)'Design as Communication: Exploring the Validity and Utility of Relating Intention to Interpretation'. *Design Studies 29* (2008) pp. 425-457.

Crow, D. (2007) *Visible Signs: An Introduction to Semiotics.* London: Ava Publishing.

Crowther, P. (2012) *The Phenomenology of Modern Art: Exploding Deleuze, Illuminating Style*. London: Continuum.

Crowther, P. (2011) *Phenomenology of the Visual Arts (Even the Frame).* Stanford: Stanford University Press.

Crowther, P. (2001) *Art and Embodiment: From Aesthetics to Self-Consciousness.*

Darwin, C. (1859) *On the Origin of Species by Means of Natural Selection, or the Preservation of Favoured Races in the Struggle for Life.* Reprint, Hertfordshire: Wordsworth Editions Limited, 1998.

Datson, L. and Galison, P. (2007) *Objectivity*. London: Zone Books.

Delanda, M. (1997) *A Thousand Years of Nonlinear History*. Reprint, New York: Zone Books, 2005.

Delaney, S. (2008*). Get Smashed: The Story of the Men Who Made the Adverts That Changed Our Lives*. UK: Sceptre.

Deleuze, G. and Guattari, F. (1987) *A Thousand Plateaus: Capitalism and Schizophrenia*. Translated by Brian Massumi, Reprint, London, New York: Continuum, 2004.

Deleuze, G. and Guattari, F. (1983) *On the Line*. Translated by Johnson, J., Reprint, New York: Semiotext(e).

Deleuze, G. (1990) *Negotiations: 1972-1990*. Translated by Joughin, M., Reprint, New York: Columbia University Press, 1995.

Deleuze, G. (1985) *Cinema 2: The Time Image*. Translated by Hugh Tomlinson and Robert Galeta, Reprint, New York: Continuum Books, 2009.

Deleuze, G. (1983) *Cinema 1: The Movement Image*. Translated by Hugh Tomlinson and Barbara Habberjam, Reprint, New York: Continuum Books, 2009.

Deleuze, G. (1981) *Francis Bacon: the Logic of Sensation*. Translated by Daniel W. Smith, London: Continuum Books, 2003.

Deleuze, G. (1962) *Nietzsche & Philosophy*. Translated by Tomlinson, H., Reprint, London: The Athlone Press, 1983.

Dennett, D. (1996) *Kinds of Minds: Toward and Understanding of Consciousness*. New York: Basic Books.

Depraz, N. and Varela, F. and Vermersch, P. (2003) *On Becoming Aware: Steps to Phenomenological Pragmatics, Advances in Consciousness Research*. Amsterdam, Philadelphia: Benjamin Publishing.

Dewey, J. (1934) *Art as Experience*. Reprint, London, New York: Pedigree, 2005.

Dixon, W.W. and Foster, G.A. (2002) *Experimental Cinema: The Film Reader*. London, New York: Routledge.

Efal, A. (2001) ‘Warburg’s “Pathos Formula” in Psychoanalytic and Benjaminian Contexts’, *Assaph - Studies in Art History,* 5, pp. 221-238.

Ehses, H. and Lupton, E. (1988) *Rhetorical Handbook: An Illustrated Manual for Graphic Designers*. Canada: Design Division.

Eisenstein, S. (1947) *The Film Sense*. Translated by Leyda, J., Reprint, London, New York: Harcourt Brace.

Elkins, J. (2009) ‘Ten Reasons Why E.H. Gombrich is not Connected to Art History’, *Human Affairs,* 19 (3), pp. 304-310.

Elkins, J. (2000) *What Painting is.* London: Routledge.

Elkins, J. (1999) *The Domain of Images*. New York: Cornell University Press.

Elsaesser, T. and Hagener, M. (2010) *Film Theory: An Introduction Through the Senses*. London: Routledge.

Fell, J. (ed) (1983) *Film Before Griffith*. California: University of California Press.

Flaxman, G. (2000) *The Brain Is the Screen*. Minneapolis: University of Minnesota Press.

Fried, M. (1982) ‘How Modernism Works: A response to T.J Clark’, *Critical Inquiry*, 9, pp. 217-234.

Fried, M. (1967) ‘Art and Objecthood’, *Artforum*, June 1967, pp. 117-147.

Gadamer, H. (1975) *Truth and Method*. Reprint, New York: Continuum, 2004.

Galison, P. (1990) ‘*Logical Positivism and Architectural Modernism*’, *Critical Inquiry*, Vol. 16, No. 4 (Summer, 1990), pp. 709-756.

Gallagher, S. (2005) *How the Body Shapes the Mind*. Oxford: Clarendon Press.

Gamboni, D. (2002) *Potential Images: Ambiguity and Indeterminacy in Modern Art*. London: Reaktion Books.

Gell, A. (1998) *Art and Agency: An Anthropological Theory.* Oxford: Clarendon Press.

Gendler, S. (2010) *Intuition, Imagination, and Philosophical Methodology*. Oxford: Oxford University Press.

Gibson, J.J. (1979) *The Ecological Approach to Visual Perception.* New Jersey: Lawrence Erlbaum Associates.

Gibson, J.J. (1971) ‘The Information Available in Pictures’, *Leonardo*, Vol. 4, No. 1. pp. 27-35.

Grau, O. (2011) *Imagery in the 21st Century*. London: The MIT Press.

Gibbons, M., Limoges, C., Nowotny, H., Schwartzman, S., Scott, P., Trow, M. (1994) *The Production of New Knowledge: The Dynamics of Science and Research in Contemporary Societies*. London: Sage Publications.

Gibbons, M. and Nowotny, H. and Scott, P. (2003) ‘“Mode 2” Revisited: The New Production of Knowledge’. *Minerva,* Vol 41. pp. 179-194.

Gibbons, J. (2005) *Art and Advertising*. London: I.B. Tauris.

Gombrich, E. (1987) '"They Were All Human Beings: So Much is Plain": Reflections on Cultural Relativism in the humanities', *Critical Inquiry*, 13 (4), Summer 1987, pp. 686-699.

Gombrich, E. (1979) *The Sense of Order: A Study in the Psychology of Decorative Art*. 2nd edn. Reprint, London: Phaidon, 2002.

Gombrich, E. (1970) *Aby Warburg: An Intellectual Biography.* Oxford: Phaidon.

Gombrich, E. (1960) *Art and Illusion*: *A Study in the Psychology of Pictorial Representation.* 5th edn. Reprint, Princeton: Princeton University Press, 1994.

Gordon, I.E. (2004) *Theories of Visual Perception*. London, New York: Psychology Press.

Greenberg, C. (1962) 'After Abstract Expressionism, in O'Brian, J. (ed.) (1993) *Clement Greenberg: The Collected Essays and Criticism* Vol 4. Modernism with a Vengeance, 1957-1969, London, Chicago: The University of Chicago Press, pp. 121-134.

Greenberg, C. (1961) 'Modernist Painting', in O'Brian, J. (ed.) (1993) *Clement Greenberg: The Collected Essays and Criticism* Vol 4. Modernism with a Vengeance, 1957-1969, London, Chicago: The University of Chicago Press, pp. 85-94.

Greenberg, C. (1939) 'Avant-Garde and Kitsch'. in O'Brian, J. (ed.) (1988) *Clement Greenberg: The Collected Essays and Criticism Vol 1. Perceptions and Judgements, 1939-1944*. London, Chicago: The University of Chicago Press, pp. 5-22.

Gregory, R. (1997) 'Knowledge in Perception and Illusion', *Philosophical Transactions, Royal Society, Biological Sciences*, vol. 352. No 1358. pp. 1121-1127.

Gregory, R. (1970) *The Intelligent Eye*. London: World University.

Grimm, R. (1997) 'Alienation in Context: On the Theory and Practice of Brechtian Theatre', in Mews, S. (1997) *A Bertolt Brecht Reference Companion*. Greenwood Press.

Grosz, E. (2006) *Chaos, Territory, Art: Deleuze and the Framing of the Earth.* New York: Columbia University Press.

Gunning, T. (1983) 'An Unseen Energy Swallows Space: The Space in Early Film and Its Relation to American Avante-Garde Film', in Fell, J.L. (ed) (1983) *Film Before Griffiths*. Los Angeles: University of California Press.

Hagener, M. (2007) *Moving Forward, Looking Back: the European Avant-Garde and the Invention of Film Culture, 1919-1939*. Amsterdam: Amsterdam University Press.

Hagerstrand, T. (1976) ‘Geography and the Study of Interaction Between Nature and Society’, *Geoforum* 7, pp. 329-34.

Harrison, C. (1998) ‘The Aesthetic Act and Pure Form: 1874’, in Harrison, C., Wood, P. and Gaiger, J. (eds.) *Art in Theory: 1815-1900*. Oxford: Blackwell Publishers, pp. 690-693.

Harmon, G. (2010) *Prince of Networks: Bruno Latour and Metaphysics*. Re Press.

Hartmann, F. (2008). ‘Visualizing Social Facts: Otto Neurath’s ISOTYPE Project’, in Rayward, W.B. (ed) 2008. *European Modernism and the Information Society*. Ashgate Publishing.

Heins, L. (2011) ‘The ‘Experimental Community’: Early German Television and Media Theory’, *Screen*, 52, 1. pp. 46-62.

Helmholtz, H. (1962) *Treatise on Physiological Optics Vol III*. Reprint, New York: Dover Pheonix, 1924.

Higgins, S. (2011) *Arnheim for Film and Media Studies*. New York: Routledge.

Hodder, I. (2012) *Entangled: An Archaeology of the Relations Between Humans and Things*. Oxford: Wiley-Blackwell.

Howes, D. (2011) ‘Hearing Scents, Tasting Sights’, in Bacci, F; Melcher, D. (2011) *Art and the Senses*. Oxford: Oxford University Press.

Howes, D. (ed) (2004) *The Empire of The Senses: A Sensual Culture Reader*. Oxford: Berg.

Hutchins, E. (2010) ‘Enaction, Imagination, and Insight’, in Stewart, J., Gapenne, O. and Di Paola, E. (eds.) *Enaction: Towards a New Paradigm for Cognitive Science*. London: The MIT Press.

Ingold, T. (2013) *Making: Anthropology, Archaeology, Art and Architecture*. London: Routledge.

Ingold, T. (2011a) *Being Alive: Essays on Movement, Knowledge and Description*. London: Routledge.

Ingold, T. (2011b) ‘When Ant Meets Spider: Social Theory for Arthropods’, in Ingold, T. (2011) *Being Alive Essays on Movement, Knowledge and Description*. London: Routledge, pp. 89-94.

Ingold, T. (2008) ‘Bindings Against Boundaries: Entanglements of Life in an Open World’. *Environment and Planning A*, 2008, Vol 40, pp. 1796-1810.

Ingold, T. (2007) *Lines: A Brief History*. London: Routledge.

Ingold, T. (2007b) 'Materials Against Materiality', *Archaeological Dialogues* 14 (1) 1–16, Cambridge University Press.

Ingold, T. (2000) *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*. Reprint, London: Routledge, 2010.

James, W. (1928) *A Pluralistic Universe*. New York: Longmans, Green, and Co.

Jameson, F. (1998) *Brecht and Method*. York, London: Duke University Press.

Johnson, C.D. (2012) *Memory, Metaphor, and Aby Warburg's Atlas of Images*. New York: Cornell University Press.

Johnson, M. (2007) *The Meaning of the Body: Aesthetics of Human Understanding*. Chicago, London: University of Chicago Press.

Johnson, M. (2000) *The Body is in the Mind: The Bodily Basis of Meaning, Imagination And Reason*. Chicago: University of Chicago Press.

Jones, A. M. (2004) 'Archaeometry and Materiality: Materials-Based Analysis in Theory and Practice', *Archaeometry*, Vol. 46, pp. 327-338.

Kesner, L. (2009) 'Gombrich and the Problem of Relativity of Vision', *Human Affairs,* 19 (3), pp. 266-273.

Klee, P. (1964) *Notebooks Vol.2: The Nature of Nature*. Translated by Manhein, R., Reprint, London, New York: Lund Humphries Publishers, 1970.

Klee, P. (1956) *Notebooks Vol.1: The Thinking Eye*. Translated by Manhein, R., Reprint, London, New York: Lund Humphries Publishers, 1961.

Klee, P. (1948) *On Modern Art.* Translated by Findlay, P., London: Faber and Faber, 1964.

Knappett, K. and Malafouris, L. (eds) (2008) *Material Agency: Toward a Non-Anthropocentric Approach*. New York: Springer.

Koss, J. (2006) 'On the Limits of Empathy', *Art Bulletin.* 88, pp. 139–157.

Krauss, R and Bois, Y.A. (1997) *Formless: A Users Guide*. New York: Zone Books.

Krauss, R. (1993) *The Optical Unconscious*. London: The MIT Press.

Krauss, R. (1986) 'Antivision', *October*, 36, pp. 147-154.

Kress, G. and Van Leeuwen, T. (2006) *Reading Images: The Grammar of Visual Design*. 2nd edn. London: Routledge.

Krippendorff, K. (2006) *The Semantic Turn: A New Foundation For Design*. London: Taylor and Francis.

Krippendorff, K. (1989) 'On the Essential Contexts of Artifacts or on the Proposition that "Design is Making Sense (Of Things)"', *Design Issues*, Vol. 5, No. 2 (Spring, 1989), pp. 9-39.

Lakoff, G and Johnson, M (1999) *Philosophy in the Flesh: The Embodied Mind and its Challenge to Western Thought*. New York: Basic Books.

Langer, S. (1957) *Problems of Art*. New York: Charles Scribner's Sons.

Latour, B. (2005) *Reassembling the Social*. Oxford: Oxford University Press.

Latour, B. (1991) *We Have Never Been Modern*. Translated by Porter, C., Reprint, Cambridge: Harvard University Press, 1993.

Lefebvre, H. (1991) *The Production of Space*. Trans. Nicholson-Smith, D. Oxford: Wiley-Blackwell.

Le-Grice, M. (2001) *Experimental Cinema in the Digital Age*. London: BFI Publishing.

Le-Grice, M. (1977) *Abstract Film and Beyond*. London: Studio Vista.

Lawlor, L. (2003) *The Challenge of Bergsonianism: Phenomenology, Ontology, Ethics.* London: Continuum.

Luhmann, N. (1998) *Observations on Modernity*. California: Stanford University Press.

Lupton, E. and Miller, J.A. (1999) *Design Writing Research: Writings on Graphic Design*. London: Phaidon.

Lupton, E. and Miller, J.A. (1993) *The abc's of the Bauhaus and Design Theory*. London: Thames and Hudson.

Lupton, E. (1986). 'Reading Isotype', *Design Issues*, vol. 3, No. 2 (Autumn, 1986), pp. 47-58.

Malafouris, L. (2013) *How Things Shape the Mind: A Theory of Material Engagement.* London: The MIT Press.

Malafouris, L. (2010) 'Metaplasticity and the Human Becoming: Principles of Neuroarchaeology', *Journal of Anthropological Sciences*, vol. 88, pp. 49-72.

Malafouris, L. (2008) 'At the Potters Wheel: An Argument for Material Agency'. in Knappett, K; Malafouris, L. (eds) (2008) *Material Agency: Toward a Non-Anthroprocentric Approach*. New York: Springer, pp. 19-36.

Malafouris, L. (2007) ‘Before and Beyond Representation: Towards an Enacted Conception of the Palaeolithic Image’, in Renfrew, C., Moreley, I. (eds) (2007). *Image and Imagination: A Global Prehistory of Figurative Representation*. Cambridge: McDonald Institute for Archaeological Research, pp. 289–302.

Marrati, P. (2008) *Gilles Deleuze: Cinema and Philosophy*. Baltimore: John Hopkins University Press.

Marks, L. (2002) *Touch: Sensuous Theory and Multisensory Media*. Minneapolis: University of Minnesota Press.

Marks, L. (2000) *The Skin of the Film: Intercultural Cinema, Embodiment and the Senses*. London: Duke University Press.

Martin, D.L (2011) *Curious Visions of Modernity: Enchantment, Magic, and the Sacred*. Cambridge, London: The MIT Press.

Massumi, B. (2002) *Parables for the Virtual: Movement, Affect, Sensation*. London: Duke University Press.

Maturana, H. and Varela, F. (1998) *The Tree of Knowledge*, Boston and London: Shambala.

Maturana, H. and Varela, F. (1979) *Autopoiesis and Cognition: The Realization of the Living*. Netherlands: D. Riedel Publishing, 1980.

Mayer, V. (2011) *Below the Line: Producers and Production Studies in the New Television Economy*. London: Duke University Press.

Meggs, P.B and Purvis, W.A. (2006) *Meggs’ History of Graphic Design.* 4th edn. New Jersey: John Wiley and Sons.

Menary, R. (ed) (2010) *The Extended Mind.* London: The MIT Press.

Merleau-Ponty. M. (1962) *The Phenomenology of Perception*. Routledge Classic edn. Translated by Kegan Paul, London: Routledge Classic, 2008.

Merleau-Ponty. M. (1964a) *The Visible and the Invisible*. Translated by Lingis, A., Illinois: Northwestern University Press, 1968.

Merleau-Ponty. M. (1961) ‘Eye and Mind,’ Translated by Eddie, J.M., in Eddie, J.M. (ed) *The Primacy of Perception: And Other Essays on Phenomenological Psychology, the Philosophy of Art, History and Politics*. Reprint, Illinois: Northwestern University Press, 1964, pp. 159-190.

Merleau-Ponty. M. (1945) ‘Cézanne’s Doubt’, Translated by Johnson, G.A, in *The Merleau-Ponty Aesthetics Reader: Philosophy and Paintings*, Johnson, G.A (ed), Illinois: Northwestern University Press. pp. 59-76.

Merleau-Ponty. M. (1942) *The Structure of Behaviour*. Translated by Alden L. Fisher, Reprint, Pennsylvania: Duquesne University Press, 2011.

Mesle, C.R (2008) *Process-Relational Philosophy*. Pennsylvania: Templeton Foundation Press.

McCloud, S. (1993) *Understanding Comics.* New York: Harper Perennial.

Metallinos, N. (1998) 'Aesthetic Theories of the Visual Communication Media Arts: Television', *Journal of Visual Literacy*, 18, 2. pp. 217-231.

Meyer, S. (1994) 'The Pursuit of Order: Some Reflections on Art and Illusion', in *Nordisk Estetisk Tidskrift* 12. 1994, pp. 40-51.

Michaud, P. (2007) *Aby Warburg and the Images in Motion*. New York: Zone Books.

Mirzoeff, N. (ed.) (2002). *The Visual Culture Reader* (2nd ed.). London: Routledge.

Moszkowicz, J. (2010) 'Phenomenology and Graphic Design Criticism: a re-evaluation of historical precedents in the Age of Slow Design' in *Copenhagen Working Papers on Design*, 2010 no. 1.

Moxey, K. (2013) *Visual Time: The Image in History*. Durham, London: Duke University Press.

Mitchell, W.J.T. (2005) *What do Pictures Want?: The lives and Loves of Images*. Chicago: University of Chicago Press.

Mumford, M. (2009) *Bertolt Brecht*. London: Routledge.

Neurath, O. (1936) *International Picture Language: The First Rules of Isotype*. London: Kegan Paul, Trench, Trubner & Co., Ltd.

Noë, A and Thompson, E. (eds) (2010) *Vision and Mind: Selected Readings in the Philosophy of Perception*. London: The MIT Press.

Noë, A. (2004) *Action in Perception*. London, Massachusetts: The MIT Press.

Nowotny, H. (2008) *Insatiable Curiosity: Innovation in a Fragile Future*. London: The MIT Press.

Nicolescu, B. (2002) *Manifesto of Transdisciplinarity*. New York: Suny Press.

Oatley, K. (1999). 'Why Fiction May be Twice as True as Fact: Fiction as Cognitive and Emotional Simulation', *Review of General Psychology*, 3, pp. 101-117.

Olkowski, D. (1999) *Gilles Deleuze and the Ruin of Representation*. Berkeley and London: University of California Press.

O'Sullivan, S. (2010) 'From Stuttering and Stammering to the Diagram: Deleuze, Bacon and Contemporary Art Practice', *Deleuze Studies*, vol. 3, no. 2. pp. 247-5.

Papapetros, S. (2012) *On the Animation of the Inorganic: Art, Architecture, and the Extension of Life*. Chicago, London: University of Chicago Press.

Patton, P. (1997) *Deleuze: A Critical Reader.* London: Blackwell Publishing.

Pepperell, R. and Punt, M. (eds) (2006) *Screen Consciousness: Cinema, Mind and World*. Amsterdam, New York: Rodopi.

Pepperell, R. and Punt, M. (2000) *The Post-digital Membrane: Imagination, Technology, and Desire*. Bristol, Oregon: Intellect Books.

Persson, P. (2003) *Understanding Cinema: A Psychological Theory of Moving Imagery*. Cambridge: Cambridge University Press.

Pickering, A (2011) *The Cybernetic Brain: Sketches of Another Future*. Chicago: University of Chicago Press.

Pollard, J. (2004) 'The art of Decay and the Transformation of Substance'. In Renfrew, C. and DeMarrais, E. (eds) *Substance, Memory, Display.* Cambridge: McDonald Institute for Archaeology Research, pp. 47-62.

Potolski, M. (2006) *Mimesis*. London: Routledge.

Prince, S. and Hensley, W.E (1992) 'The Kuleshov Effect: Recreating the Classic Experiment'. *Cinema Journal*, Vol. 31, No. 2 (Winter, 1992), pp. 59-75.

Protevi, J. (2005) 'Deleuze, Guattari, and Emergence', *Paragraph: A journal of Modern Critical Theory*, 29.2 (July 2006): 19-39.

Punt, M. (2012) 'Image, Light and the Passage to the Semi-Material Object', in Blassnigg, M. (ed.) *Light, Image, Imagination: The Spectrum Beyond Reality and Illusion*. Amsterdam: Amsterdam University Press.

Punt, M. (2000) *Early Cinema and the Technological Imaginary*. Chepstow: Postdigital Press.

Rampley, M. (2001a) 'Mimesis and Allegory: On Aby Warburg and Walter Benjamin', in Woodfield, R. (ed.) *Art History as Cultural History: Warburg's Projects*. Amsterdam: Gordon and Breach, pp.121-149.

Rampley, M. (2001b) 'Iconology of the Interval: Aby Warburg's Legacy'. *Word & Image: A Journal of Verbal/Visual Enquiry* 17 (4). pp. 303-324.

Rampley, M. (1997) 'From Symbol to Allegory: Aby Warburg's Theory of Art', *The Art Bulletin*, 79 (1), pp. 41-55.

Rees, A.L. (2011). *A History of Experimental Film and Video 2nd Edition*. London: Palgrave Macmillan.

Renfrew, C. and Malafouris (eds) (2010) *The Cognitive Life of Things: Recasting the Boundaries of the Mind*. Cambridge: McDonald Institute for Archaeology Research.

Rescher, N. (2000) *Process Philosophy: A Survey of Basic Issues*. Pittsborough: University of Pittsborough Press.

Richter, P. (1976) 'Professor Gombrich's Model of Schema and Correction', *British Journal of Aesthetics*, 16(4), pp. 338-346.

Robertson, R. (2009) *Eisenstein on the Audioviual: The Montage of Music, Image and Sound in Cinema.* London: I.B. Tauris.

Rudwick, M. (1997) *Scenes From Deep Time: Early Pictorial Representation of the Prehistoric World*. London: University of Chicago Press.

Salmon, J. and Ritchie, R. (eds) (2000) *Inside Collett Dickenson Pearce*. London: B.T. Batsford.

Sapir, I. (2006) 'Narrative, Memory and the Crisis of Mimesis: The Case of Adam Elsheimer and Giordano Bruno', *Studies Across Disciplines in the humanities and Social Sciences*, 1, pp. 84-96.

Sörbom, G. (2008) 'The Classical Concept of Mimesis', in Smith, P. and Wilde, C. (eds.) *A Companion to Art Theory*. London: Blackwell Publishing Ltd.

Shklovsky, V. (1914) *Theory of Prose*. Reprint, London: Dalkey Archive Press, 2009.

Shryock, A. and Smail, D. (2011) *Deep History: The Architecture of the Past and Present*. Berkeley: University of California Press.

Simondon, G. (1964) 'The Genesis of the Individual', in Crary, J., Kwinter, S. (eds.) *Zone 6: Incorporations*. Translated by Cohen, M and Kwinter, S., Reprint, New York: Zone Books, pp. 296-319, 1992.

Smail, D.L. (2008) *On Deep History and the Brain*. Berkeley: University of California Press.

Smith, D.W (1997) 'Deleuze's Theory of Sensation: Overcoming the Kantian Duality', in Patton, P. (1997) *Deleuze: A Critical Reader.* London: Blackwell Publishing.

Sobchack, V. (2004) *Carnal Thoughts: Embodiment and Moving Image Culture*. Berkeley: University of California Press.

Sobchack, V. (1992) *The Address of the Eye: A Phenomenology of Film Experience*. Princeton: Princeton University Press.

Sörbom, G. (2008) ‘The Classical Concept of Mimesis’, in Smith, P. and Wilde, C. (eds.) *A Companion to Art Theory*. London: Blackwell Publishing Ltd.

Spiegel, L. (2008) *TV By Design: Modern Art and the Rise of Network Television*. Chicago: University of Chicago Press.

Stapleton, M. and Thompson, E. (2008) ‘Making Sense of Sense-Making: Reflections on Enactive and Extended Mind Theories’, *Springer Science+Business Media B.V.*

Stivale, C.J. (ed) (2000) *Gilles Deleuze: Key Concepts*. Montreal: McGill-Queen’s University Press.

Shields, C.J. (2003) *Classical Philosophy: A Contemporary Account*. London: Routledge.

Stengers, I. (2010) *Cosmopolitics I.* Translated by Bononno, R., Reprint, Minnesota: University of Minnesota Press.

Stengers, I. (2011) *Cosmopolitics II.* Translated by Bononno, R., Reprint, Minnesota: University of Minnesota Press.

Stewart, J. and Gapenne, O. and Di Paolo, A. (2010) *Enaction: Toward a Paradigm for Cognitive Science.* Cambridge, London: The MIT Press.

Stukeley, W. (1759) *The Philosophy of Earthquakes, Natural and religious, Or an Inquiry into Their Cause, and their Purpose.* London: C. Corbet.

Thrift, N. (2008) *Non-Representational Theory: Space | Politics | Affect.* London: Routledge.

Thompson, E. (2007) *Mind in Life: Biology, Phenomenology, and The Sciences of Mind*. London, Massachusetts: Harvard University Press.

Thompson, E. (1995) *Colour Vision: A Study in Cognitive Science and the Philosophy of Perception*. London: Routledge.

Tyler, A.C (1992) ‘Shaping Belief: The Role of Audience in Visual Communication’, *Design issues*, Vol. 9, No. 1 (1992) pp. 21-29.

Uexkull, J. (1934) *A Foray Into the Worlds of Animals and Humans With a Theory of Meaning*. Translated by O’Neil, J.D., London: University of Minnesota Press, 2010.

Van den Oever, A. (ed) (2010) *Ostrannenie: On “Strangeness” and the Moving Image, The History, Reception, and Relevance of a Concept*. Amsterdam: Amsterdam University Press.

Van Leeuwen, T. (2008) ‘New Forms of Writing, New Visual Competencies’, *Visual Studies*, Vol. 23, No. 2, September 2008. pp. 130-135.

Varela, F. and Thompson, E. and Rosch, E. (1993). *The Embodied Mind: Cognitive Science and Human Experience*. Chicago: MIT Press.

Varela, F. and Shear, J. (eds) (2000) *The View From Within: First-Person Approaches to the Study of Consciousness.* Ohio: Imprint Academic.

Vaterling, V. (2003) 'Body and Language: Butler, Merleau-Ponty and Lyotard on the speaking Embodied Subject'. *International Journal of Philosophical Studies*. 11(2), pp. 205-223.

Verdi, R. (1984) *Klee and Nature*. London: A. Zwemmer Ltd.

Vischer, R (1874) 'The Aesthetic Act of Pure Form', in Harrison, C and Gaiger, J (1998) *Art in Theory: 1815-1900*. pp. 691- 693.

Walsh, M. (1981) *The Brechtian Aspect of Radical Cinema, Essays by Martin Walsh*. London: BFI Publishing.

Warburg, A. (1893) 'Sandro Boticelli's Birth of Venus and Spring: An Examination of Concepts of Antiquity in the Italian Early Renaissance', in Bing, G., Rougemont, F., Warburg, M. (1932) *The Renewal of Pagan Antiquity: Contributions to the Cultural History of the European Renaissance.* Los Angeles: Getty Research Institute Publications, 1999, pp. 89-156.

Warren, R.M and Warren, R.P (1968) *Helmholtz on Perception: Its Psychology and Development.* New York and London: John Wiley and Sons.

Wolfe, C. (2010) *What is Posthumanism?* Minneapolis, London: University of Minnesota Press.

Whitehead, A, N. (1978) *Process and Reality: An Essay in Cosmology*. 2nd Corrected edn. New York: The Free Press, 1985.

Whitehead, A.N. (1920) *The Concept of Nature*. Reprint, New York: University of Cambridge Press, 1995.

Willett, J. (1964) *Brecht on Theatre: The Development of an Aesthetic*. New York: Farrar, Straus and Giroux.

Wind, E. (1983) *The Eloquence of Symbols*. Oxford: Clarendon Press.

Wind, E. (1963) *Art and Anarchy*. London: Faber.

Wolfe, C. (2010). *What is Posthumanism?* Minnesota: University of Minnesota Press.

Wood, C. (2009) 'Art History Reviewed VI: E.H. Gombrich's "Art and Illusion: A Study in the Psychology of Pictorial Representation", *CLI*, *The Burlington Magazine*, December 2009, pp. 836-839.

Wosk, J. (2006) *Breaking Frame: Technology and the Visual Arts in the Nineteenth Century.* Rutgers University Press.

Zielinski, S. and Link, D. (eds) (2006) *Variantology 2: On Deep Time Relations of Arts, Sciences and Technologies*. Köln: Verlag der Buchhandlung Walther König.

Zielinski, S. (2006) *Deep Time of the Media: Toward an Archaeology of Hearing and Seeing by Technical Means*. London: The MIT Press.

Zielinski, S. (1999) *Audiovisions: Cinema and Television as Entr'actes in History*. Amsterdam: Amsterdam University Press.

Audio-visual materials

Film (1965) Directed by Samuel Beckett [Film], Paris: mk2.

Music Teacher (1968) Directed by Steve Eliot [Advertising film]. London, Colette Dickinson and Pearce.

Man with a Movie Camera (1929) Directed by Dziga Vertov [Film]. London: BFI.

Moses and Aaron (1975) Directed by Jean-Marie Straub and Danielle Hulliet [Film], New York: New Yorker Films.

The Docks of New York (1928) Directed by Josef von Sternberg [Film]. Los Angeles, Paramount.

Visual Materials

Manet, C. (c1863) *The Luncheon on the Grass.* [Oil on canvas] Musée d'Orsay, Paris.

Millet, J.F. (1848-1852) *Peasant with Wheelbarrow*. [Oil on Canvas]. Indianapolis Museum of Art, Indiana.

Millet, J.F. (1858) *Peasant Woman with Brushwood*. [Oil on Canvas]. The hermitage Museum, St Petersburg.

Raimondi, M. (c1510-1520) *The Judgement of Paris.* [Engraving]. The Metropolitan Museum of Art, New York.

(2nd-3rd century CE) *Sarcophagus Relief of the Judgement of Paris*. Villa Medici, Rome.

Warburg, A. (c1920) 'Mnemosyne Atlas' Panel 77 [Photograph], in Checa, F. (ed) (2003) *Aby Warburg: Atlas Mnemosyne*. Translated by Chamorro Mielke, Reprint, Madrid: Ediciones Akal, pp. 132-133, 2010.

A BRIEF HISTORY AND THEORY OF NOT LOOKING: TOWARD A FIELD THEORY OF THE AUDIOVISUAL

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During the 1960s, the constructivist approach to vision and visuality broke free from the dominant culturally and historically relative models (as championed within Semiotics and Feminist theory) to involve the human agency of the body thus proposing a biological model of vision. The Biological framing of vision attempted to discard a culturally and historically relative model of vision in favour of models which involved the body as a site of meaning, thus bringing the body back into the framing of vision, taken away by the previous linguistic turn. Within this biological framework, it is the whole body that supports and maintains the spectacle of vision. However, within Ecological and Enactive approaches to perception, it is argued that perception is not embedded in or constrained by either the body or the surrounding world, but together in a reciprocal, emergent specification and selection. A biological model of vision then must move beyond the body or the environment to involve an enactive approach to vision, that neither privileges the body or the environment. This paper addresses the authors' insight into the implications of an enacted cognition (and visions role within such a system) on traditional views of vision from constructivist, biological and phenomenological standpoint and its implications to the visual arts. It traces the conceptions of vision historically from a linguistically defined culturally relative model of the early 1960s, through a constructivist biological model of the late 1960s, which focussed on the body as the site of meaning, to Recent enacted models of perception, that privilege neither the body or the environment as a site of meaning. The Enacted model is unpacked and a model of perception in which the role of vision, and thus its very nature, is questioned and established.

Introduction

This paper addresses the author's insight into the implications of an enacted model of perception and cognition, in particular the role of 'vision' within such a system, on traditional views of vision, and how the term 'visual' is to be understood in light of such enacted models. It is argued that in light of the enacted models of perception, models of vision (or looking) that have existed prior to enacted models, such as culturally relative (Mulvey 1975) and biological (Bryson 1989, Gombrich 1960) privileging either a linguistic cultural layer or the body as a site of meaning, respectively, lack a fundamental move toward an enacted model of perception and vision which privileges neither. This paper's focus is to outline a model of enacted 'looking' that it argues opens our eyes to the ways that have prevented us from looking for so long. Drawing from constructivist, biological and phenomenological standpoints, it traces the conceptions of vision historically, starting from the linguistically defined, culturally relative models of the early 1960`s, in which culturally defined models of vision and the visual, such as Laura Mulvey's male gaze (Mulvey 1975), assume a model of vision and visual perception to be constructed from social/cultural codes and signs, such as feminine sexuality, shaping perceptions and representations of reality. The culturally relative models are later denounced by a constructivist view of vision, in which a biological framing of vision was proposed (championed by Ernst Gombrich and Norman Bryson), focussed on bringing the body back in the frame as the site of meaning in itself, which was disembodied and forgotten through focus on language of the cultural relative models. With support by phenomenological models of vision drawn from the phenomenology of Merleau-Ponty during the late 1960s, the biological models took vision away from the objective clutches of the cultural and social theorists, that had shaped perception and vision to this point, and re-instated the body as an active site of meaning in the structuring of visual representation. The focus then shifts to recent enacted models of perception, (such as Varela 2001) in which it is maintained that within human perception we cannot privilege either the body or the environment as an independent site of meaning, but must attend to both as a reciprocal specification. The enacted models present an intriguing model for the visual arts, in which the role of vision itself, and its very nature within such a system, needs to be questioned and rethought to move beyond the biological framing proposed by the constructivists. As such, this paper insights a move from the 'visual' as known through current models of vision, toward a theoretical enacted model, in the process reclassifying the notion of the 'visual' and the nature of 'vision' within this enacted structure, which will be outlined here as the 'audiovisual'.

Looking and the Visual

During the 1960s, active constructivist artists and academics set about to challenge a rising dominant linguistic model of visual experience and visuality that saw perception (specifically models of the visual and visuality) as being shaped by socially defined cultural codes. The cultural relativity and historicity of vision thesis has become a widely accepted axiom for visual studies and art history since the philosophical Linguistic Turn of the early 20th Century, championed by the rise of social studies, feminist theories and semiotics (Kesner 2009, pp.266-273). Within the culturally relative thesis, visual perception is seen to be conventionally, historically and socially constructed as part of a linguistic based conception of reality. These relative models of vision, such as Laura Mulvey's *Male Gaze* (Mulvey 1975) which argues that the gender determined Hegemonic *Male Gaze* of early Hollywood cinema is founded through culturally constructed codes of Sex, Femininity and spectatorship (Mulvey 1975), shape visual perceptions and representations of reality. In such a model, Mulvey argued, the female appearance within early cinema was coded in such a way to connote a *to-be-looked-at-ness* through strong visual and erotic impact they portray on screen (Mulvey 1975), thus moulding a representation of reality in which the female appearance plays to the male gaze, placing the spectator in the seat of a masculine subject position. Such culturally relative Theories assumed that vision and visuality have a culturally defined history; that there exists specific culturally and historically constructed modes of perception, that are virtually undisputed in disciplines concerned with visual experience (Kesner 2009). As such, the relative models see visual experience as being constructed as part of a set of cultural and historical codes that exist independently of direct human perception, shaping human perception and representations of reality to be linguistically defined.

The relativity of vision thesis was strongly contested by constructivist theorists such as Ernst Gombrich and Nelson Goodman during the late 1960`s, at a time when major advancements in the Biological Sciences had begun to build Biological models of the mind. Questions began to arise about the possibility of a Biological foundation to perception, the arts and experience itself. In particular, Ernst Gombrich amassed overwhelming evidence to show how the way we see and depict depends upon and varies with experience, practice, interests and attitudes (Goodman 1968) Gombrich focussed on the intentionality and desire of human nature, and as such, took exception to the assumption that we can construct vision independently of our own biological `nature`, and championed a biological framing of vision, and what he calls human `Nature`, that he argued lies beyond the culturally relative thesis. Gombrich maintained that the use and critique of cultural codes has shaped our perception of, and representations of, reality through vision thus ignoring the Biological foundations of vision, itself rooted within our own bodily experiences. (Gombrich 1960) To Gombrich, there can be no *'innocent eye'*, (Gombrich 1960, p.307) no eye that is merely passive in its perception of cultural codes, the eye is always historical and relative to the body that it belongs to, to its own biology, and perception is no different. He set out to rethink the issue of conventionality and historicity of vision and visuality itself from biological foundations, thus moving beyond the

Culturally Relative thesis. This notion in subsequent years, however, became a target of major criticism and regarded as irrelevant by those who followed critical studies, feminism and semiotics that were steadily advancing the case for the relativism and social determination of vision. (Kesner 2009) With this large advancement in the cultural relative stance, the `natural` biological models championed by Gombrich and Bryson, became more and more irrelevant as they ignored the fundamental culturally deterministic nature of the popular relative models. In the 1990s, Gombrich began to openly denounce cultural relativism, which he saw as plaguing humanities and cultural studies, in which he begins to openly argue the problem of the Relativity of vision in light of a theory of the biological foundation to art;

> Our Biological inheritance consists less of overt traits than of dispositions which can be developed or atrophied in the life of the community [...] I am convinced that the visual arts rest in similar ways to Biological Functions. (Gombrich 1987 pp.695-696; cited in Kesnar 2009)

It is the very question, of the biological rooting of vision, that was a major focus of the art historian Norman Bryson in his book ‘Vision and Painting`. Bryson too, found issue with the cultural relativity of vision and visuality, claiming that the act of vision / visuality or *looking*, must amount to more than the sum of a coded system signs can reveal, it is rooted, supported by and contingent to the whole of the body`s experience. In his critique of the reductive nature of painting and vision within Western painting, (Bryson 1989) he sets out a clear division between our mediated way of looking at the world through a Gaze, and our `natural`, biological method of the Glance;

> The logic of the Gaze is subject to two great laws. The body (of the painter, of the viewer) is reduced to a single point, the macula of retinal surface; and the moment of the gaze is placed outside duration. Spatially and temporally the act of viewing is constructed as a removal of the dimensions of space and time, as a disappearance of the body. (Bryson 1989, p.96)

Bryson sets up the Gaze as his reading of the cultural relativist model, the Gaze (a linguistically constrained model) reduces the moment of experience, what he calls the *Deixis* – a carnal form that points back directly to the bodily experience of the perceiver (Bryson 1989, p.88), and places it outside of the direct bodily experience of space and duration, thus removing the body as a site of meaning;

> Western Painting is predicated on the disavowal of deictic reference on the disappearance of the body as site of meaning. (Bryson 1989, p.89)

Bryson argues that this disappearance of the body, and the subsequent suppression of Deixis, operates by abstracting from the physical practice of painting (and of viewing) to the linguistic code, severing the body from its labour; the body is reduced to an optical autonomy. Thus, viewing through the Gaze is constructed outside of the viewers / painters own dimensions of space and time, it becomes a cultural code, losing its original Deicitc (or carnal) references and ignoring the body as a site of meaning in itself. In contrast, the concept of the Glance aims to put the body, complete with its own dimensions of space and time, back into the picture. In contrast, the 'Painting of the Glance addresses vision in the durational temporality of the viewing subject, it does not seek to bracket out the process of viewing nor [..] does it exclude the traces of the body of labour' (Bryson 1989, p.94)

The Glance addresses vision as a part of the durational temporality of the subject, and is indistinguishable from it. The Glance is a sideways look from an always passing viewer, whose attention is always elsewhere. It is a glance at a world thorough a body that is existing in its own space and time, for itself, and as such, has its own Deixis, its own reading. Against the Gaze, the Glance proposes desire, it proposes the body, in the duration of its practical activity (Bryson 1989, p.122), and these are the terms that the tradition of the Gaze seeks to suppress. It is the painting/viewing of the Glance, as appose to the Gaze, that points to a biological foundation of vision; one that is not detached from the body's duration and temporality, one that is contingent to its techniques and does not exclude any trace of its labour.

Resting upon a relativity of vision thesis, it is clear that from the suggested biologically focussed standpoint that vision and the visual lie beyond a cultural and historical determination. To focus upon a cultural relative model of vision is to deny the body`s own temporality and existence in structuring vision. Within this framework, the act of looking becomes akin to tunnel vision, a focussing on a subject whilst filtering out the surrounding `goings on` of the body`s existence and temporality. In understanding vision in a culturally relative framework, the eye becomes dis-embodied, the bodily act of the Glance, and the structuring of vision within this bodily act, is reduced to that of the Gaze in which the body, with its own temporality and history, disappears. We cannot, then, understand the complex sense we have of our environment purely through the activity of the disembodied eye of cultural relativism.

The Phenomenology of Merleau-Ponty argues such, that `looking` must be fully integrated within the kinaesthetic and tactile dimensions of experience;

> Our own body is in the world as the heart is in the organism; it keeps the visible spectacle constantly alive, it breathes life into it...and with it forms a system. (Merleau-Ponty 1962, p.235)

To Merleau-Ponty the body in the world supports and maintains the spectacle of vision. Vision cannot be detached from the sensing body in its world as a system; as such vision cannot be dis-embodied and understood in isolation from the system, as the system itself maintains it. Vision then is more than just the visual, it the aural, it is the tactile, it is the kinaesthetic, it is the temporal. Vision is supported by the rest of the sensing body; to look is to experience with all your being. The body is fundamental to systems of `natural` looking, to Glancing. The mediation of our experience through culturally relative models of vision, remove the active body from the dimension of vision and the visual. To deny the body its role in looking is to view the world through a tunnel vision, to detach the eye from its tactile and temporal bodily existence.

The constructivist approach to vision aimed to break from a culturally relative model of vision and pull it back to involve human agency involved with a *biologically rooted model* of vision. The biological framing of vision (proposed by Gombrich and Bryson) attempted to discard a culturally and historically relative model of vision in favour of a triadic model that was rooted within the biological nature of human existence which involved the body as a site of meaning. Within this framework it is the body that supports and maintains the spectacle of vision, a body that constitutes much more than the visual – a synaesthtetic model of vision. However, within ecological and enactive approaches to perception, (Stoffregen 2003, Varela et al. 1993) it is argued that perception is not embedded in or constrained by either the body or the surrounding world, but together in a reciprocal, emergent specification and selection. A biological model of vision, then, must move beyond the body to involve an enactive approach to vision, that neither privileges the body or the environment.

Looking beyond the Visual

The enactive approach to perception (Varela et al. 1993) maintains that perception and action (sensory and motor processes of the whole body) are fundamentally inseparable within lived cognition, the action of the whole body in the environment structures perception and cognition. Its roots can be traced back to the Aristolean notion of 'Aisthesis', in which it is argued that a ‘more balanced attention be paid to all our corporeal sensorial sensations in daily life, not merely the (audio-) visual’ (Verrips 2006, p 29). Such models of perception do not privilege any of the sense faculties over any other; instead, the individual senses are re-categorised and put on the same plane of importance, forming an indivisible whole in which they are all considered equal. Re-considered from the point of view of their interplay, the sensation of touch is considered to be the most fundamental of the ‘senseations’, (Aristotle 1986, p.183) as it not only forms the conditions of our survival (reproduction and defence), but can also be traced to be associated with all the other senses[1]. Jojada Verrips (2006) recognises the tactile nature of perception as a whole, taking this notion of Aisthesis in its original form to argue that if we were to pay attention to our entire sense experience rather than the Western dominance of the (audio-)visual, we would discover that our experience is predominately tactile in nature, that our whole sense experience is reducible to tactility (Verrips 2006). The Enactive approach to perception, resting upon similar ground, recognises this tactility of the body and also incorporates the subsequent external influences of the environment upon the tactile body. This approach consists of two main points: (1) that Perception consists in perceptually guided action and that (2) cognitive structures emerge from the recurrent sensi-motor patterns that enable action to be perceptually guided (Varela et al. 1993). The action of the tactile body *in* the world guides perception, and this `enaction`, forms our basic cognitive structures. The enactive approach to perception is a reciprocal specification of organism and environment, the tactility of the environment and the body as a whole form this specification, this was a central insight in Merleau-Ponty`s early works, in which:

> [...] The properties of the object and the intentions of the subject [...] are not only intermingled: they constitute a new whole. When the eye and the ear follow an animal in flight, it is impossible to say `which started first` in the exchange of stimuli and responses. Since all movements of the organism are always conditioned by external influences, one can, if one wishes, readily treat behaviour as an effect of the mileau. But in the same way, since all the stimulations which the organism receives have in turn been possible only by its proceeding movements which have culminated

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[1] Aristotle, De-Anima (On the Soul) ‘Hence it is that taste also must be a sort of touch, because it is the sense for which is tangible and nutritious’ (Aristotle 1986, p.601). ‘I call by the name of special object of this or that sense that which cannot be perceived by any other sense than that one and in respect of which no error is possible; in this sense colour is the special object of sight, sound of hearing, flavour of taste. Touch, indeed, discriminates more than one set of different qualities’ (Aristotle 1986, p.567)

> in exposing the receptor organ to external influences, one could also say that behaviour is the first cause of all stimulations. Thus the form of the excitant is created by the organism itself, by its proper manner of offering itself to actions from the outside.[...] The environment emerges from the world through the actualisation or the being of the organism – [granted that] an organism can only exist if it succeeds in finding in the world an adequate environment. (Merleau-Ponty 1964, p.13; cited in Varela et al. 1993, p.174)

In such an approach, perception is not embedded within and constrained by the surrounding world; it also contributes to the enactment of the surrounding world. The organism both initiates and is shaped by the environment, selecting relevant properties perceptually whilst the world selects the structure of the organism through its evolutionary history. Merleau-Ponty recognises that we must see the organism and environment as bound together in reciprocal specification and selection, what Varela et al. (1993) call perceptual guidance by action, we are perceptually guided by the tactile action of the whole body (not isolated sense modalities) enacting with the world. Varela et al. illustrates perceptual guidance by action through an analysis of Held and Heins`s kitten study (Held and Hein 1958):

> Held and Hein raised kittens in the dark and exposed them to light only under controlled conditions. A first group of animals were allowed to move around normally, but each of them were harnessed to a simple carriage and basket that contained a number of the second group of animals. The two groups therefore shared the same visual experience, but the second group was entirely passive. When the animals were released after a few weeks of this treatment, the first group of kittens behaved normally, but those who had been carried around behaved as if they were blind: they bumped into objects and fell over edges. (Varela 1993, p.175)

This example supports the enactive view that objects are not seen by the visual extraction of features but rather by the visual guidance of tactile bodily action, we cannot separate perception from action, from perceptually guided action, which incorporates the whole organism in the environment. Vision then, is much more than merely just the extraction of the visual; it is structured and supported by the rest of the tactile enactive experience, guided or supported by the enaction as a whole.

The view that vision is supported by other sense modalities is widely accepted within psychology and cognitive science. Bahrick and Lickliter (2000) proposed an intersensory redundancy hypothesis, which holds that in early infant development, information presented redundantly and in temporal synchrony across two sensory modalities selectively recruits infant attention and facilitates perceptual learning more effectively than does the same information presented unimodally. The same event presented to one sense modality alone selectively recruits attention to modality-specific aspects of the event and facilitates perceptual learning of those properties at the expense of others. In such theories, as long as the 'redundant' information is 'matched' or 'synchronised' (i.e Audio that corresponds to the visual information) it is generally suggested that Audio information would enhance learning if it were complimentary to the visual channel. When the two channels were concordant, viewers were somewhat able to treat audio visual presentation as a single source. Bahrick and Lickliter (2000) recently showed that five-month-old infants could differentiate between two five-element rhythms (of hammers hitting a surface) when the rhythms were presented bi-modally, (audio and video) but showed no evidence of differentiating the rhythms when they were presented unimodally (video only). These studies all agree that Auditory information redundantly supports the visual channel, and as such aids in comprehension and learning.

These studies show quite effectively that it is much more than the visual extraction of human experience that is perceived through the visual. Held and Heim`s kitten study show us that the visual is guided by the tactility (movement and touch) of bodily action, whilst the studies of audio visual redundancy maintain that the perception of the visual extraction is redundantly supported by the auditory channel. The perception of the visual then, within an enacted model of perception, can no longer be understood as a mere isolated visual extraction, but as a part of an interrelated whole, supported by the rest of the enactive experience.

Looking beyond the Audio Visual

Whilst the biological models of vision moved away from the linguistically constrained relative models to involve the body as a site of meaning, an enactive approach to perception holds that Vision cannot be isolated from the enacted whole experience of the body enacting *in* the environment. As vision is shown to be both audibly and tactilely supported by the individual enaction, it is the individual enaction (or its history of structural coupling) as a whole that in turn supports the perception of the visual. The visual cannot be isolated from a subjective, enactive narrative of the perceiver. The visual is supported by and is a part of a whole enacted experience; as such the perception of visual images must contain elements of the individual's enactive history. To look is to perceive with the whole bodily experience in a reciprocal attachment to the world, which is not just an isolated visual extraction.

Gombrich alluded to such a process by which the Beholder of the image had their own share in the visual representations that were depicted within them. The Beholder's Share (Gombrich 1964, pp.174-175) spoke of the incompleteness of painting arousing the bodily based Imagination of the beholder, what is not depicted within these types of image arouses the beholders expectations and experiences, thus 'completing' the images through the beholders own experience. He believed that Classical forms of art understood, better than most, the means of arousing this 'Imitative Faculty', in particular the art of the Far East had mastered this process of what he called 'giving expression to the invisible' (Gombrich 1960, p.175), he notes how, specifically, Chinese art theory discusses the power of expressing through *absence* of brush and ink. Within such images, intimate details such as facial features are absent, but the expressive marks that are present are enough to express what is absent from the depiction:

> Figures, even though painted without eyes, must seem to look; without ears, must seem to listen [...] There are things which ten hundred brushstrokes cannot depict but which can be captured by a few simple strokes if they are right. That is truly giving expression to the invisible. (Gombrich 1960, pp.174-175)

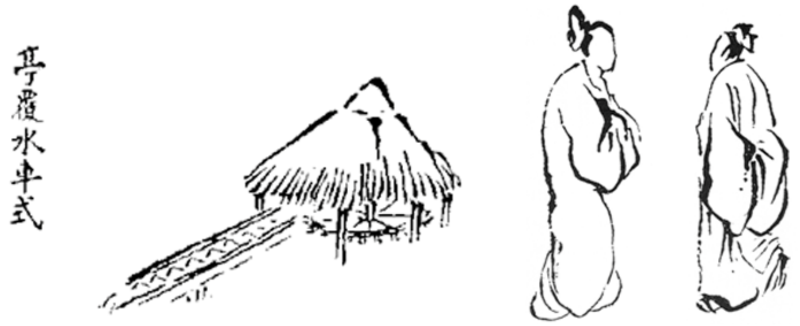


Figure 20. Images From the 'Mustard Seed Garden Manual of Painting' (from Gombrich 1960, p.175).

Gombrich believed that it is precisely the restricted visual language (with calligraphic qualities) of Eastern artwork of this period that encouraged the beholder to complete the image by arousing their imagination (see figure 20). In such a theory the empty surface is as much a part of the image as the strokes of the brush, as the empty space arouses the beholders share in the perception of the image.

Such a process is found within the Western Medium of comics, the visual activity of `reading` the visual panels is generally accepted to be a process by which we combine individual image panels that exist in the same instant to create a continuous narrative by adding our own imagination. (McCloud 1993) Within this field, the dominant concept of Closure (McCloud 1993 et al), borrowed from film studies, has been used to describe this process of reading comics as the process of 'observing the parts but perceiving the whole.' (McCloud 1993) In which we observe the images, but perceive a whole narrative. Pratt describes the process of closure in relation to comics as 'The mental process whereby readers of comics bridge the temporal and spatial incompleteness of the diegesis that occurs in the gutters between panels, thereby participating in the creation of narrative.' (Pratt 2009) The concept of closure applied to comics, is used to describe our ability to view individual images and panels in sequence and to mentally construct or bridge together a narrative ourselves within the blank spaces, or gutter, between the panels from our own experience;

> In the limbo of the gutter, human imagination takes two separate images and transforms them into a single idea. Nothing is seen between the two panels, but experience tells you something must be there [..] Closure allows us to connect [otherwise unconnected] moments and mentally construct a continuous, unified reality. (McCloud 1993, p.89)

It is in the spaces in between the panels that allow the reader to construct the narrative out of their own imagination. There is nothing visual in between the panels to be read but white space, but our experience joins the panels together through a mental construction of a new continuous reality. It is not the images in the panels that create the overall narrative; it is the space in-between the panels (the gutter) that facilitate the creation of narrative by the readers own imagination. It is in this space between the pictures that the imagination of the reader, an imagination that utilises the rest of the sensory apparatus of the reader, supports of the visual images that are perceived (McCloud 1993, p.89).

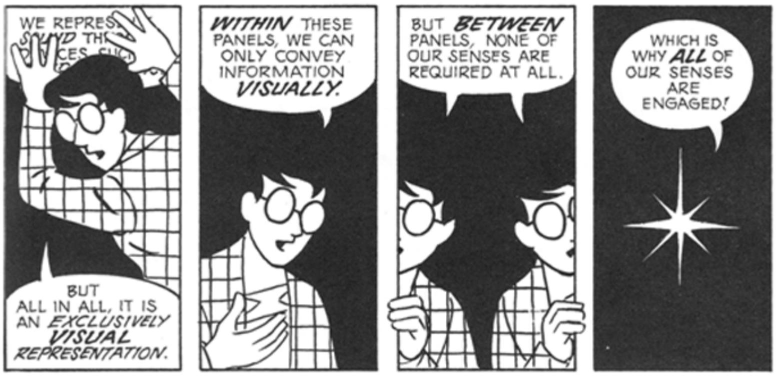

WE REPRES SOUND TH CES, SUC
BUT ALL IN ALL, IT IS AN EXCLUSIVELY VISUAL REPRESENTATION.
WITHIN THESE PANELS, WE CAN ONLY CONVEY INFORMATION VISUALLY.
BUT BETWEEN PANELS, NONE OF OUR SENSES ARE REQUIRED AT ALL.
WHICH IS WHY ALL OF OUR SENSES ARE ENGAGED!

Figure 21. Closure demonstrated within the medium of comics. (from McCloud 1993, p.89).

The visual images in the panels are supported by the `closure` that exists within the gutter, that is created by the experience of the reader and `soldered` to the visual in the panels. Thus within the context of narrative of comics, the visual perception of the panels is supported by the reader's own experience, an experience which as McCloud points out, constitutes more than just the visual, as all of the senses are involved. McCloud presents his multi-sensory notion of closure by providing an example of being in a kitchen environment as a sequence of visual panels.

In these images (figure 21) we have no problem with perceiving that we are in a kitchen. With a high degree of closure we can take these individual picture fragments and construct a continuous scene of a kitchen out of them, adding our own experience using the rest of the primary senses into the narrative mix. McCloud notes how the we can `hear` the boiling pot, not just in the first panel, but as the panels change, accompanied by the sound of the knife on the chopping board as the second frame is viewed and finished off with the ticking of the timer in the last panel. He notes how we can almost *smell* the food being cooked in the kitchen, even *feel* it or *taste* it. The visual images here are supported by the `closure` that exists within the gutter, that is created by the experience of the individual reader and `soldered` to the visual in the panels. Thus within the context of narrative of comics, the visual is supported by the reader's experience, which constitutes much more than the visual. The assumed mono-sensory (visual) medium of comics (McCloud 1993) then, is supported by the rest of the sensory experience in between the visual panels. When we view these we are aware of the aural, the olfactory, the tactile and the kinaesthetic at the same time as the visual.

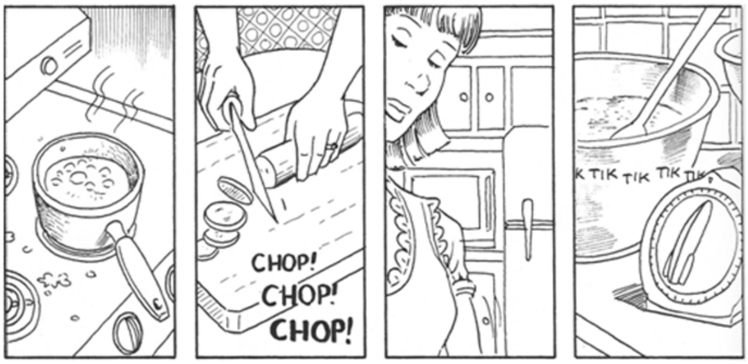

CHOP!
CHOP!
CHOP!
K TIK TIK TIK TIK

Figure 22. Kitchen scene as constructed through the narrative of a comic (from McCloud 1993, p.89).

The sequence of visual panels that constitute a comic, combined with the reader's ability to use closure, conveys far more information than is assumed to be present within the visual. The comic's medium itself does not have any sound, music or motion, but these elements are surely perceived through this seemingly visual only media. These examples demonstrate that the assumed mono-sensory (visual) perceptual nature of the image in fact constitutes much more of our enactive experience than we are aware of. The visual in these examples is redundantly supported by elements of the rest of the individual enaction, be it the audible, tactile or olfactory experience, as such when the images are 'read' we view the visual individual 'parts' but perceive the 'enacted whole' which constitutes much more than the isolated visual, it constitutes the collective experience of the whole of the enacted experience.

Looking and the 'Audiovisual'

As Merleau-Ponty suggested, 'The properties of the object and the intentions of the subject [...] are not only intermingled; they also constitute a new whole. When the eye and the ear follow an animal in flight, it is impossible to say 'which started first' in the exchange of the stimuli and responses.' (Varela el al. 1993, p.175) It is impossible, in an enacted approach to perception, to understand vision in isolation from the rest of the enacted experience as is assumed within linguistic models. To look through the gaze of the culturally relative model of the linguistic turn is to dis-embody vision, to cut it off from the very system of enactive experience that defines it and supports it. The studies above show, quite subtly, that we can no longer talk of the visual, the tactile or the audio as isolated modes. Within the enactive view the visual is supported by the rest of the enactive experience, guided or supported by the enaction. It is this guidance by action – action of the whole body not reduced to individual sensi-motor modes that guides vision in the enactive view. Here, talking of the visual, vision can no longer be isolated and privileged over any other part of the whole enaction, as it is a self supportive system, to talk of vision or the visual we must involve the rest of the enaction. Furthermore, each of the studies above has taken a position of the visual being redundantly supported by other modes, (the audio redundantly supporting the visual, the 'imagination' of the gutter guiding the visual panels, action guiding vision) thus privileging the visual over the other modes of the enaction as a focus of enquiry. However, to talk of the visual as privileged here is to create a further extraction, to detach it from the enaction that supports it and which it in turn supports. The evidence of supportive redundancy of audio-visual technologies therefore, supports here a much broader and subtle argument, that of the possibility of the individual sense modalities being redundantly supported by (and dependent upon) the rest of the enacted experience, and vice versa as a whole system with equal importance, not reducible to any single sense modality. Aristotle's original notion of Aisthesis, whilst not privileging any one modality, may have missed a fundamental point; to recognise the synaesthesic quality of the senses, but to extract and isolate the senses even further by talking of the 'tactile quality' of experience that underlies all the senses, thus privileging the tactile. In a true enactive approach there exists no division of the sense experience – experience exists as a supported whole and is only ever privileged by a sense through our objectified analysis of it. It is not, then, that there exist a number of sense modalities (that may or may not be tactile in nature), but that perception cannot be classified in terms of any currently known sense modalities. We cannot talk of the tactile nature, or the visual nature, or the aural nature, for these are further extractions which misguide an analysis. It is my impulse that they all constitute an interconnected whole, a self-supported entity existing on a very different plane - a further dimension of interrelated experience that supports itself and creates perception. Thus to survey this new dimension, a new model of analysis is called for. To begin to talk of the audio visual within a true enacted view of perception, we must re-attach the visual and audio to the enacted roots as a whole, and theorise as a whole. The visual and audio are no longer seen as individual sense modalities, but rather they must be treated as a single source, symbiotically attached to each other and to the rest of the enaction. To begin to survey this theoretical ground, to gain a foot hold on this new sensual dimension, we can now begin to talk of the constituted wholes that may exist on this new plane. To begin to understand what we have called the `visual`, or what we are trying to call natural looking, we must forget the dogmatic term visual, releasing looking from the grip of the visual, and fashion a new mode of reference that exists as a part of this enactive dimension, one that is not merely the visual or the aural or even the tactile, but maybe a configuration of them all, one attempt may be to move beyond the visual toward a model of experience that may encompass more just the visual, for this we need to construct a field theory of the “audiovisual”.

References

Aristotle. 1986. *De-Anima (On the Soul).*trans Lawson-Tancred. H. Penguin Classics.

Bahrick, L.E. & Lickliter, R. 2000. *Intersensory redundancy guides attentional selectivity and perceptual learning in infancy.* Developmental Psychology, 36, pp.190-201.

Bryson N. 1989. *Vision and Painting: the logic of the gaze.* Yale: Yale University Press.

Danto, A.C. 2001. *Seeing and showing.* The Journal of Aesthetics and Art Criticism, 1 (59), pp.29-33.

Gombrich .E. 1960. *Art and Illusion*. Princeton: Princeton University Press.

Goodman. N, 1968. *Languages of Art: An Approach to a theory of Symbols*. Hacket Publishing

Held. R and Hein.A 1958. *Adaption of disarrangement hand-eye coordination contingent upon re-afferent stimulation*. Perceptual motor skills. 8, pp.87-90.

Kesner. L. 2009. *Gombrich and the Problem of Relativity of Vision*. Human Affairs, 19, pp.266-273.

McCloud. S. 1993. *Understanding Comics*. New York: Harper Perennial.

Merleau-Ponty, M. 2002 (1962). *The Phenomenology of Perception*, (trans. Colin Smith), London: Routledge.

Merleau-Ponty, M 1964. *The Primacy of Perception.* Trans Alden Fisher. Boston: Beacon Press.

Maturana H, Varela, F. 1987. *The Tree of Knowledge*. Shambala: Boston.

Mulvey, L. 1975. *Visual Pleasure and Narrative Cinema. Film Theory and Criticism : Introductory readings*. New York: Oxford University Press

Pratt. H, J. 2009. *Narrative in Comics,* The American Society for Aesthetics

Varela, F., Thompson, E., Rosch, E. 1991. *The Embodied Mind: Cognitive Science and human experience*. Cambridge: The MIT Press.

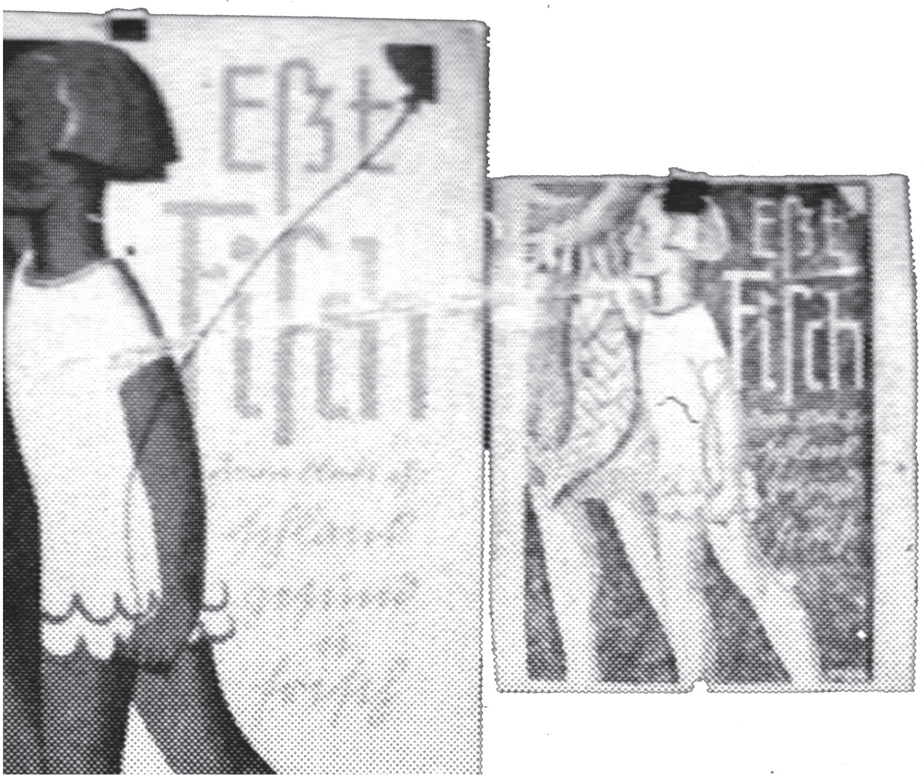
Verrips, J. 2006. *Aisthesis and Anasthesia*. Off the edge: experiments in cultural analysis. Sweden :Museum Tusculanum Press.

Wittgenstein, L. 2001 *Philosophical Investigations*. Trans G.E.M Anscombe. Oxford: Blackwell Publishing.

The [unseen] Modernist Eye:

Minimalism, Defamiliarization and the Advertising Film

Martyn Woodward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The [unseen] Modernist Eye:
Minimalism, Defamiliarization and the Advertising Film

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Abstract

What is the relationship between fine art / avant-garde practices and domestic television advertising form? In asking this question, this paper departs from the contemporary literature regarding this relationship, which it argues in situating the relationship within late Modernism, overprivileges the formal aspects of the interaction, neglecting the very creative nature of human experience, perception and agency. This paper thus aims to re-think the relationship between the practices of avant-garde and advertising in light of the involvement of the creative nature of human experience, perception and agency by recognising the centrality of human perception to both endeavours. In doing so the paper can begin to discuss the use of avant-garde techniques, such as minimalism and ambiguity, within advertising forms not merely as a formal strategy, but as underpinned by a very human creativity.

Introduction

The formal exchanges, convergences and crossovers between early commercial advertising and experimental avant-garde practices have been richly discussed (Gibbons, 2005; Spiegel, 2008). Contemporary accounts of this relationship describe it as an embracing of each other's formal styles, driven primarily by an economic engine, and one which treats the avant-garde and advertising forms themselves as separate, translatable formal styles (Cowen, 2010). These 'cross-overs' and 'convergences' here are considered in the light of the desire of advertising agencies to apply 'cutting edge' cinematic techniques to draw viewers' attentions during a period of advertising saturation in the 1960s (Spiegel, 2009, pp. 214-216), in which avant-garde techniques within advertising forms are considered to be a formal strategy employed primarily to stand out and to draw viewers' attention.

This paper traces this formal view of the relationship between avant-garde and advertising to lie within the Modernist 'autonomy of the arts' (Greenberg, 1960) during the 1960s, which maintained two fundamental conditions regarding the relationship: (1) that avant-garde (or arts practice) and advertising are treated as separate endeavours, with different agendas and (2) in privileging the formal structure, the literature overlooks the perceptual and experiential dimension of human experience, and as such neglects any human agency within the transaction. Current research concerning the relationship between avant-garde techniques and advertising film aims to compound the formalist approach in highlighting the mutually beneficial exchanges of print advertising and art into the practices of audio-visual media, in which the relationship is viewed as a complimentary mutual interaction that itself produces a creative synergy.[1] This 'Exchange and Flow' between commercial advertising film and avant-garde art practice treads further new ground by factoring in the perceptual dimensions of the viewers themselves, which has been overlooked within the literature. In proceeding from this position, this paper aims to re-think the relationship between the practices of avant-garde and advertising in light of the involvement of the creative nature of human experience, perception and agency by recognising the centrality of human perception to both endeavours. Through a case study revealing the use of the avant-garde technique such as minimalism within advertising film during the 1960s, through a core example of the UK campaign for Hamlet Cigars (1968), this paper focuses upon unravelling the perceptual dimensions of the use of minimalism, as recognised by art critics such as Rosalind Krauss (Gamboni, 2002; Krauss, 1993; Bearn, 2000) when discussing the pictorial arts, we can never fully exclude the domains of human knowledge and experience. This paper uncovers this [unseen] structuring of the visual through a focus upon the behavioural, psychological and multi-sensory aspects of perceptual experience, drawing upon the work of Ernst Gombrich, Maurice Merleau-Ponty and Rudolf Arnheim, in which 'visual' perception is underpinned by the very experiences, desires and prejudices of an embodied subject. Within such a model, minimalism will be conceived not as a remove from human knowledge and experience, but as always being bound up within, supported by, and invoking the multi-sensory experiences, desires and prejudices of the embodied subject. These conditions of the embodied eye, maintaining that the familiarity of embodied experience will always remain the starting point, within perception, of the ambiguous and unfamiliarity of minimal and ambiguous forms, bring to light the discussion of minimalism at the heart of the Hamlet advertising film form as a condition to actively engage the familiarity of the experience of the embodied subject, which is also a tactic is endemic of the artistic avant-garde concept of *defamiliarization*. It is through this interwoven context of commercial advertising, avant-garde art practices, psychology of perception, phenomenology and film-art practice, that the minimalism and ambiguity of the Hamlet Cigars' campaign can be shown to work not merely as an artistic stylisation or a conscious formal strategy, but as a product of a very human creativity.

Prologue

[Happiness is a Cigar called Hamlet]

> Cigar smoking is a reward or a reinforcement of other pleasures. Little things in life can get you down […]. But on reflection and with a little quiet smoke, you can always rise above these petty aggravations. Happiness is a Cigar Called Hamlet. (CDP Account Review 'Happiness is a Cigar called Hamlet', 1995).

The message for the British campaign for Hamlet Cigars was simple: that life's petty little aggravations can be soothed with a smoke of a Hamlet cigar. The campaign works on the premise of enhancing the quality of life of a victim of circumstance, such as a man in a neck brace unable to keep up with a fast pace of a tennis match; a sculptor breaking an arm of a piece he is working on; a music teacher unable to teach a young boy to play the piano, through a moment of calm created through a smoke of a Hamlet cigar. The everyday situations represented within the campaign portray a tension between the *chaotic* of the everyday and the *calm* created through the smoke of a Hamlet cigar, which itself is always accompanied by Bach's *Air on a G-String*. Hamlet 'Music Teacher' (1968) describes the situation of a teacher's anxiety attempting to teach a young boy to play the piano, unsuccessfully, who persists in hammering the keys creating an out-of-key and out-of-time run of random notes. The teacher's anxiety eventually causes him to reach for his Hamlet cigars. As he lights the cigar he is transported into a world of his own, punctuated through the soothing sounds of *Air on a G-String*, of calm and tranquillity, ignoring the chaotic and noisy reality around him. The advert finishes with a soothing male voiceover proclaiming: 'Happiness is a Cigar called Hamlet'.

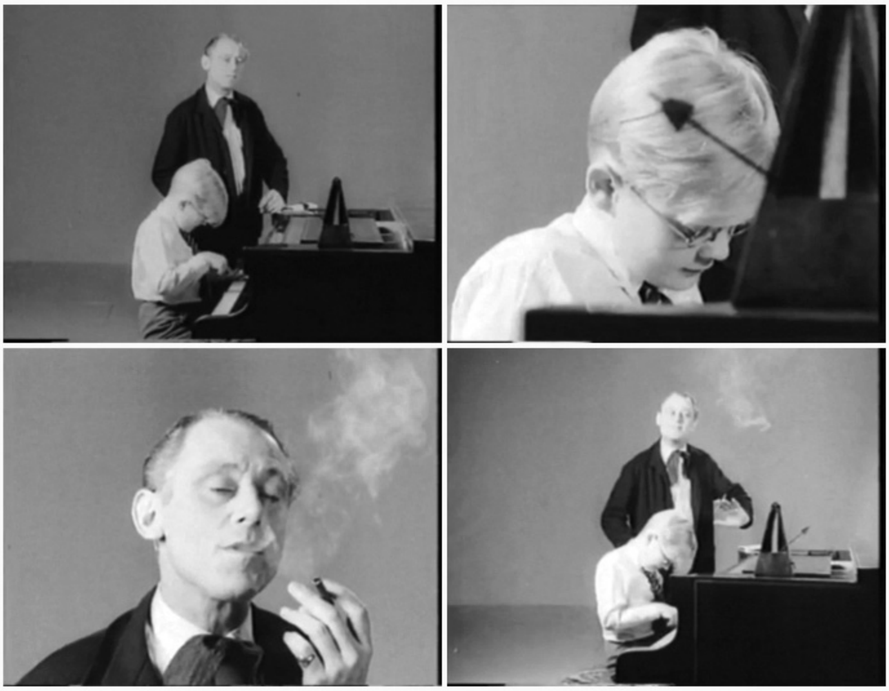
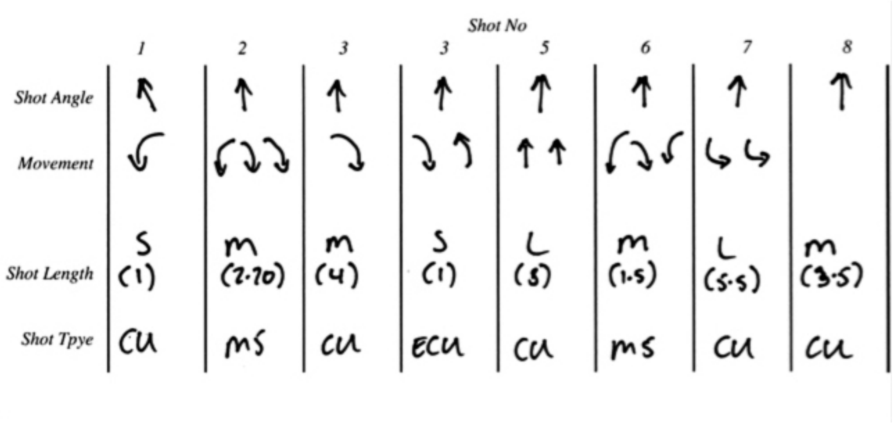


Fig. 1-4. (Top left to bottom right) Hamlet Cigars mise-en-scene analysis.

The work is persistently minimalist in its form, framed by a consistent fixed, straight-on point of view (Fig. 1, 2) with a static, minimal camera movement maintained throughout. The mise-en-scene is stripped to its bare minimum, using specific props to signify the context of a music lesson, such as a piano, metronome, boy and teacher, sparingly to punctuate the setting against a blank set (Fig. 1). The costumes are bare, the boy wearing a tie and glasses, the teacher a cravat and jacket (Fig. 1). The acting style is stripped down, held back through small gestures and minimal movements; the boy's playing is reduced to a physically tense, focussed and intense stabbing of the keys with his pointed fingers, the disdain of the teacher over the boy's playing is realised predominantly through his static posture and facial expression (Fig. 1), the soothing nature of the Hamlet cigar is presented through a gently swaying hand gesture in time to *Air on a G-string* (Fig. 4). The use of sound is restricted to utilising music only, through the out-of-key piano notes and *Air on a G-string*, with no spoken dialogue throughout except with the spoken strap line ‘Happiness is a Cigar called Hamlet’ at the end.



Shot No	1	2	3	3	5	6	7	8
Shot Angle	↖	↑	↑	↑	↑	↑	↑	↑
Movement	⤹	⤹⤵⤵	⤵	⤵⤴	↑↑	⤹⤵⤹	↳↳	
Shot Length	S (1)	M (2.70)	M (4)	S (1)	L (5)	M (1.5)	L (5.5)	M (3.5)
Shot Tpye	CU	MS	CU	ECU	CU	MS	CU	CU

Fig. 5. ‘Music Teacher’ Formal Analysis

The structure of the work, the construction of its shots, shot types, shot lengths, movements, and rhythms, are constructed to describe the change from the chaotic and noisy to the calm and soothing through the minimum possible means. The entire advert consists of 8 shots (Fig. 5) utilising only 3 types of shots: close-up, extreme close-up and medium shot. The work uses a single repeated pattern of close-up and medium shots that is maintained throughout the entire work (Fig. 6). The work is divided into 2 halves, representative of the *chaos* of the out-of-key playing, and the soothing *calm* of the Hamlet cigar (Fig. 1).

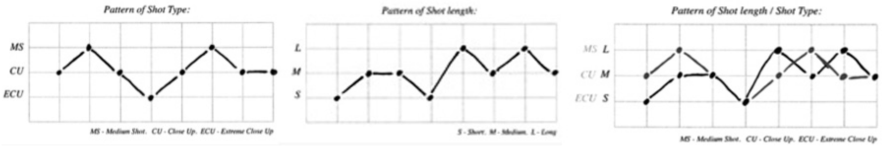


Fig. 6-8. Shot Length against Shot Type; Pattern of Shot Length; Pattern of Shot Length.

The first, chaotic, half is constructed from a pattern of small and medium length close-up and medium shots. The flow is broken by the introduction of the product through the only extreme close-up of the work, midway in shot 4, punctuating the shift to the soothing calm as the teacher smokes his cigar accompanied by Bach’s *Air on a G-string* in shot 5. Within the second, calming, half the pace of the work changes, and is constructed through long and medium length shots through the same use of medium and close-up shots (Fig. 7). The repeated pattern of close-up and medium shots maintains a constant, steady rhythm throughout the work that is interrupted by the introduction of the product in shot 4 by an extreme close-up (Fig. 9), punctuating the calming shift in which the faster cutting between shots in the first ‘chaotic’ half is broken, and slowed down. The accompanying music accompanies the shift through a change from the out-of-key, and out-of-time, to *Air on a G-String* during shot 5 (Fig. 9).

The persistent use of minimalism within the form is utilised to set the context and scene, and to describe the changing shift from the chaotic to a calm. This minimalism permeates throughout the whole work, the minimal mise-en-scene, minimal camera movements and use of shot types, minimal acting and gestures and the minimal use of sound through music. Within the late Modernist landscape of 1960s, in which this work existed, the artistic practice of *minimalism* within the pictorial arts (through avant-garde, expressionist and abstract artworks (Greenberg, 1960) were critically understood as being a part of the Modernist conception of the ‘autonomy of art’, which conceived a specific visual model which was tied to the visual arts which, in the following, will be termed the *Modernist eye*.

1. The Modernist Eye

> The senses are useful when their contribution is not overestimated. In the culture we happen to live in they teach us relatively little. The world of our century is a poor actor: it does show its variegated outside, but its true nature is not immediately apparent either to the eyes or the ears (Arnheim, 1959, p. 196).

As Perceptual Psychologist Rudolf Arnheim claims, the Modernist conceptions of the ‘visual’ and in turn of visual perception tied to the pictorial arts, underestimated the contribution of the non-visual senses within visual perception. Radically transforming visual models of the Middle Ages when visual perception was seen as intertwined directly with a human soul, and as a sensation through which ’reality announces itself to a perceiving subject’, Modernism’s model of the visual aimed instead to escape the domain of human knowledge and experience in order to discover the qualities that defined an ‘absolute autonomy’ (from any human experience and knowledge) of a pictorial artwork (Krauss, 1981, p. 147). The focus on the ‘absolute autonomy of the visual arts’ is widely recognised as a systematic issue during the rise of Modernism (Gamboni, 2002; Krauss, 1993; Bearn, 2000). The notion held that the visual, as the only sense that a pictorial art can invoke, could be constructed outside of the experience of the rest of the experienced body, and defined as an absolute ‘pure’ irreducible ‘essence’ of a pictorial work (Greenberg, 1960, p. 86). This ‘autonomy’ of the visual and separation from the experiencing subject was theorised within the pictorial arts through a perceived notion that each of the arts were to demonstrate that “the kind of experience they provided was valuable in its own right and not to be obtained from any other activity” (Greenberg, 1960, p. 88). To Clement Greenberg, each art “has to perform this demonstration on its own account” (1960, p. 88). The Modernist task was to “eliminate from the specific effects of a visual art any and every effect that might conceivably be borrowed from […] any other art.” (1960, p. 88). It is this logic upon which Modernism’s concept of the visual is built:

> To achieve this autonomy, painting has had above all to divest itself of everything it might share with sculpture, and it is in its effort to do this, and not so much […] to exclude the representational or literary, that painting has made itself abstract (Greenberg, 1960, p. 88).

Greenberg argues that in searching for its autonomy, the pictorial arts orientated themselves toward flatness, as this was the only condition that painting didn't share with any other art form (1960, p. 87). As such, he argued that representation, or illustration, does not attain the uniqueness of pictorial art in the way minimalism could, on the grounds that it is not confined to a two dimensional space:

> All recognizable entities (including pictures themselves) exist in three-dimensional space, and the barest suggestion of a recognizable entity suffices to call up associations of that kind of space (Greenberg, 1960 p. 88).

It is through this autonomy, from any other art form, that Greenberg's Modernism rests upon on two key points: (1) insistence on the optical as "the only sense that a completely and quintessentially pictorial art can invoke" (p. 90) and (2) to exclude the domains of non-visual sensory experience, and to focus upon the relation to the 'essence' of the visual alone. It is through the autonomy from representation and recognition, within the pictorial arts, that the abstract and the minimal are seen as an artistic effort of painting to divest itself of the sculptural, and of subjective recognition.

Rosalind Krauss argues that such a construction of the visual as autonomous from human perception, dis-embodies it from the natural network it exists within, in contrast the visual is always "[d]ependent on the connection of the eye to the whole network of the body's tissue, […] tied to the conditions of nervous life, it is by definition a function of temporality" (1993, p. 216). Krauss argues that vision is always located within a body, within the network of the body's tissue, and temporality of the body. The Modernist model of vision, she argues, lies outside of the temporality of the body: by separating the visual from the rest of the bodily experience it excludes the domain of human knowledge endemic to the visual:

> To exclude the domain of knowledge […] to rewrite the visual in the realm of a reflexive relation to the modality of vision rather than its contents, to savor in and for these qualities like immediacy, vibrancy, simultaneity, effulgence and to experience these qualities without objects (Krauss, 1993, p. 147).

She argues instead that visual phenomena, far from being outside and external to multi-sensory experience, have an "unconscious" that is internal to the perceiver that houses it (Krauss, 1994, p. 178). Her notion of the "optical unconscious", maintains that "the world of visual phenomena: clouds, sea, sky, forest- have an unconscious" (Kraus, 1993, p. 178) that lies within the body of the perceiver. Such a model aims to include the entire experience and knowledge of the perceiver, that works within "[t]he order that operates beyond the reach of the [*purely*] visual, an order that works entirely underground, out of sight" (Krauss, 1993, p. 217; author's inserts and italics). Utilising the phenomenology of Merleau-Ponty and Husserl her "optical unconscious" lies within:

> [A] [p]rimordial intuition that is not in need of "concepts" in order to grasp the world. Nothing comes "before" to shape the aperture that perception opens onto the field of experience (Kraus, 1993, p. 217).

To Krauss, Greenberg's Modernism, tied to the privileging and separation of the optical over other sense experiences, dis-embodies vision from the perceiver's multi-sensory perceptual experience and undermines the very 'unconscious' of where art comes from, that of the perceiver's experience itself. Her 'optical unconscious' roots the visual within the 'unconscious' of the multi-sensory body, aiming to include this 'forgotten' 'unconscious' underground structuring of the body's temporality and knowledge within Modernist models of the visual. To Krauss, the 'visual' model of Modernism thus has an occult, unseen, underground structure that lies outside of a purely artistic endeavour.

2. The [unseen] Modernist Eye

This occult, unseen structure of the visual can be traced throughout phenomenological positions and the work of constructivist artists and perceptual psychologists within the visual arts during the 1960s. Minimalism and ambiguity take on a different role within the work of Ernst Gombrich, Merleau-Ponty and Rudolf Arnheim, who embody visual perception within the behavioural, psychological and multi-sensory experience of the body, the synthesis of which will outline the conditions of an *embodied eye*.

For perceptual psychologist Rudolf Arnheim, the "prejudice" (experience) of the multi-sensory experiencing body always underlies visual perception. In refuting the argument that film cannot be art, as it does nothing but mechanically reproduce reality (1959, p. 8). Arnheim discusses the techniques by which film can be treated as an art form through recognising the embodied nature of visual perception of the spectator. For Arnheim, film's relationship with reality resembles that of painting, literature and dance, and as such, as a medium can be used (but isn't necessarily) to produce artistic results (1959, p. 8). Arhneim argues that *real life* is only ever real in the experience of an embodied subject, and that film - cinema as an event - should not be considered as merely a mechanical reproduction of reality, but should be recognised as a product of the prejudices and experiences of the viewer. To Arnheim, a mechanical approach to film denies the true functioning of the eye as embodied within the functioning of the rest of the body, and as Krauss, he argues:

> Our eyes are not a mechanism functioning independently of the rest of the body. They work in constant cooperation with the other sense organs (Arnheim, 1959, p. 30).

Arnheim maintains that it is the cooperation of the rest of the body with the visual, and the structuring of the visual experience through the cooperation of the rest of the body (the kinesthetic, aural, tactile and olfactory) that structures our experiences of a 'visual' work.[2] The eyes are not merely passive mechanisms functioning in isolation; they are in constant cooperation with the rest of the bodies' sensory experiences, even when these sensory experiences are assumed as absent within a visual work. It is this "absence of the non-visual world of the senses" within a visual work, that is always present within the viewers' perpetual experience, "sensations of smell, equilibrium, or touch are […] never conveyed in a film through direct stimuli, but are suggested indirectly through sight" (Arnheim, 1959, p. 30). Arnheim notes that the very absence of the kinesthetic within the visual representation of a film (arising from a body at rest) is always suggested indirectly, and is present within the perceptual experience of the spectators themselves. Recognising how surprising phenomena result if the eye is engaged and the body is static, Arnheim notes how a feeling of "giddiness" is produced when watching a film taken in which the camera moves rapidly back and forth. This "giddiness" is produced by "the eye participating in a different world from that indicated by the kinesthetic reaction of the body, which is at rest" (Arnheim, 1959, p. 30). Our sense of equilibrium within a film is dependent upon what the eye reports (in cooperation with the other senses), as the body itself receives no kinesthetic stimulation, the experience of equilibrium is absent from the materiality of the film, but is perceptually present within the experience of the film.

The absence of the 'non-visual sense' of sound is perceived through the visual, in the cooperation of all the senses, to construct, within perception, a materially absent sound. Arnheim discusses that within the experience of watching a silent film:

> No one who went unprejudiced to watch a silent film missed the noises, which would have been heard if the same events had been taking place in real life. No one missed the sound of walking feet, nor the rustling of leaves, nor the ticking of a clock (Arnheim, 1959, p. 34).

To Arnheim, the absence of the sound in silent film is experienced within the imagination of the viewer as it is made visible within the work itself, citing Josef von Sternberg's *The Docks on New York*, in which a gunshot is made visible by the sudden rising of a flock of birds (1959, p. 34). Here, the spectator does not infer that the shot has been fired, but actually sees something of the quality of the noise (Arnheim, 1959, p. 108). The 'suddenness, the abruptness of the rising birds, gives visually the exact quality that the shot possesses acoustically' (Arnheim, 1959, p. 108), making the invisible sound visible through an in-direct event, strengthening the effect, and being experienced perceptually by the spectator. For Arnheim, the multi-sensory 'prejudiced' experience of the body structures vision and the constant cooperation of all the sense organs contributes to the entire perceptual experience of the spectator. As such, the minimising of the whole sense experience to the visual (through silent film[3]) will always be structured by the 'unseen' world of the non-visual senses. For Arnheim, the 'visual' engagement with minimal formal structures, always involves the spectator's recognitions and expectations.

Such psychological aspects of visual experience - expectations, intentionality, and desire - are the focus of the art historian Ernst Gombrich. To Gombrich, since in his view there can be no "*innocent eye*" (1964, p. 307), an eye that is merely passive in its perception of cultural codes, the eye is always historical and relative to the body that it belongs to and visual perception is no different. As such, Gombrich maintained that the beholder of the visual image had their own psychological 'share' of the visual representations that were depicted within them. Gombrich's "beholder's share" (pp. 174-175) spoke of the incompleteness of painting arousing the bodily based imaginative faculty of the beholder; what is not depicted within these types of images arouses the beholder's own experiences and expectations. Discussing the concept at work within the perception of 'accidental' shapes such as clouds he notes: "What we read into these accidental shapes depends on our capacity to recognize in them things or images we find stored in our minds" (p. 155). The beholder's share relies upon the psychological concept of the 'projection' of our prior expectations and experiences, our schema, onto the world, in which we can "'project' the familiar form of a face onto the configuration of a car just as we project familiar images into vaguely similar shapes of clouds" (p. 89). This projection of familiar images onto "vaguely similar shapes" is seen within the psychological test of drawing consequences (Fig. 9), in which an original image (an Egyptian owl) is copied and re-copied until it eventually takes on the form of a 'pussycat' (pp. 64-65). Gombrich notes that where a pre-existing category is lacking, within the unfamiliar 'vague' shapes (at around reproduction 5), a distortion sets in (p. 64), and the shape takes on a new form dependent upon the perceiver's schema of experience. It is here that "the first approximate, loose category […] is gradually tightened to fit the form it is to reproduce" (p. 64). It is on this premise of projection that the beholder's share rests, maintaining that "the familiar will always remain the likely starting point for the rendering of the unfamiliar" (p. 72). Exemplified within Eastern artwork, Gombrich points to how Chinese art theory discusses the power of expressing the "invisible" through the absence of brush and ink (p. 175).[4] Within such images, intimate details such as facial features are absent, but the expressive marks that are present are enough to express what is absent, "invisible" within the depiction (Fig. 9):

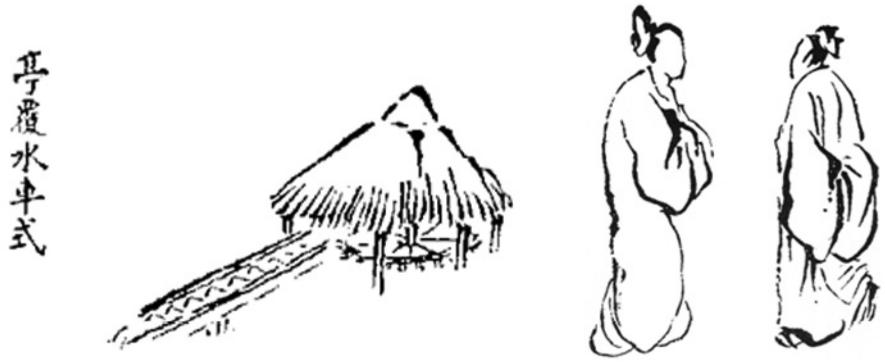


Fig. 9. 'Images from the Mustard seed Manual for Painting', in Gombrich, 1964, p. 79.

> Figures, even though painted without eyes, must seem to look; without ears, must seem to listen [...]. There are things which ten hundred brushstrokes cannot depict but which can be captured by a few simple strokes if they are right. That is truly giving expression to the invisible (Gombrich, 1964, pp. 174-175).

Gombrich believed that it is precisely the restricted visual language of Classical Eastern artwork that encouraged the beholder to complete the images by arousing their imitative faculty. In such a theory the empty surface is as much a part of the image as the strokes of the brush, since the empty space arouses the beholder's share in the perception of the image. It is this power of expectation, rather than conceptual knowledge, Gombrich notes, that moulds what we see in life; the 'expected', projected image is structured from the beholder's temperament, personality and preferences, as such the experienced familiar is always the starting point in the perception of the unfamiliar.

The multi-sensory and psychological dimensions that underpin 'visual' perception are at the centre of Merleau-Ponty's *Phenomenology of Perception*. To Merleau-Ponty, however, the body alone is not seen as the core of all of our perceptual and cognitive experience, but is inseparable from the world in which it exists, subject and object are intertwined in reciprocal specification (Merleau-Ponty, 1963, p. 13). In recognising the reciprocity of object and subject, to which the organism both contributes, but is also conditioned by the external environment, Merleau-Ponty roots perception itself within behaviour:

> Since all movements of the organism are always conditioned by external influences, one can, if one wishes, readily treat behaviour as an effect of the Milieu. But in the same way, since all the stimulations which the organism receives have in turn been possible only by its proceeding movements which have culminated in exposing the receptor organ to external influences, one could also say that behaviour is the first cause of all stimulations (Merleau-Ponty, 1963, p. 13).

To Merleau-Ponty, the reciprocality of the body *in* the world supports and maintains the spectacle of 'vision'. The visual cannot be detached from either the sensing body or the world as a system; as such vision cannot be dis-embodied and understood in isolation from the system, as the system itself maintains it. The visual is intertwined with the tactile, kinesthetic and temporal dimensions of the body. In recognising the embodied nature of visual perception, Merleau-Ponty is able to shift the 'cause of stimulation' within perception from a visual stimulus to the behaviour and movement of the body itself:

> Thus the form of the excitant is created by the organism itself, by its proper manner of offering itself to actions from the outside. […] The environment emerges from the world through the actualization or the being of the organism – [granted that] an organism can only exist if it succeeds in finding in the world an adequate environment (Merleau-Ponty, 1963, p. 13).

Merleau-Ponty shifts and underpins perception itself to the movement and behaviour of the body, a model of perception in which the environment emerges from the world through the very movements and behaviours of the body. The body and world are co-dependent; as such our primary way of relating to things is neither purely sensory, reflexive, cognitive or intellectual, but rather bodily and behavioral.

Through a synthesis of this literature an [unseen] Modernist eye is always *prejudiced* by its psychological and multi-sensory experiences. The 'visual' is never isolated from the temporality of the body that perceives it, the kinesthetic, tactile, aural and olfactory are always *present* within the experience of the 'visual', and as such, *present* in their *absence* within the perceived work. The 'visual' is also always conditioned by the psychological, by expectations and by the desires of human nature. In realising the reciprocality of subject and object, Merleau-Ponty embodies this multi-sensual and psychological 'visual' perception within the behaviour of the body in reciprocal specification with the environment. The embodied eye functions as a part of and upon the presence of bodily behaviour, to construct the 'visual' outside of this reciprocal experience. To talk of 'visual' perception alone, is therefore a construction that privileges the visual over the importance of the other sense experience, radically overestimating the importance of the 'visual'. Arnheim's absence of the non-visual sense world present within the perception of a visual work and Gombrich's notion of the minimal brush strokes enabling 'invisible' features of an image to be present within perception, are approaches that recognise the multi-sensory, embodied nature of perception. Through the minimalism of a multi-sensory experience, through the pictorial, of both the Chinese art and the silent film, the multi-sensory world of the senses is always present within perception. As such, the technique of minimalism through the 'visual' image is a technique that directly acknowledges the perceiver's entire embodied experience, invoking the familiarity of the whole bodily experience within the experience of the perception of the unfamiliar, minimal and vague shapes. Uncovering the techniques of unfamiliarity through minimalism at work within embodied perception, places these techniques as necessary attributes of the human perceptual system itself, in which the unfamiliarity of a 'visual' experience is always structured by the familiarity of prior embodied experience.

3. The Defamiliarized [unseen] Modernist Eye

The conditions of the embodied eye maintain that the familiarity of embodied experience will always remain the starting point, within perception, of the unfamiliar. The unfamiliarity of the minimalist nature at the heart of the Hamlet advertising film form can therefore begin to be viewed as a tactic to engage the familiarity of the experience of the perceiver. Such techniques of 'defamiliarizing' an experience lie at the heart of the artistic avant-garde concept of defamiliarization, in which minimalism and ambiguity aim to do just this. The concept of defamiliarization describes a way of thinking characterised by the literary theorist Viktor Shklovsky during the early 20th century. The concept came as a method to attack the contemporary Modernist theories of the 20th century of the economy of mental effort within the arts (Crawford, 1984). Shklovsky aimed to create artistic literary devices that would create the strongest possible perceptual impression on the reader (Crawford, 1984). He understood perception as an "origin, a primary (originary) experiencing" (Crawford, 1984, p. 210), and foregrounds perception within his model of the arts, in doing so recognises the need to make things unfamiliar, to prolonging perception, in order to experience a work's subjective 'artfulness':

> [T]he device of art is to make things "unfamiliar", to increase the difficulty and length of their perception, since the perceptual process in art is valuable in itself and must be prolonged; art is a way of experiencing the artfulness of an object, the object in art being itself unimportant (Shklovsky, 1914, p. 13).

His notion of estrangement based upon the concept of defamiliarization, aims to make an object strange by removing it out of its sphere of habitual recognition (Shklovsky, 1914, p. 6). This is achieved within the arts by a variety of means; specifically discussing the estrangement used by the Russian writer Leo Tolstoy he notes that "[Tolstoy] does not call a thing by its given name, that is, he describes it as if it were perceived for the first time [...]. He forgoes the conventional names of the various parts of a thing, replaces them instead with the names of corresponding parts in other things" (Shklovsky, 1914, p. 6). This device of estrangement, Shklovsky calls the "rotation" of an object within its semantic space (like turning a real object in space (Crawford, 1984), which shifts the object out of its typical associations into a radically different one, estranging the object. Shklovsky's estrangement relies upon the concept of making strange an object or event through describing it from different points of view, or corresponding events, to invoke a new perceptual impression.

Shklovsky's technique of 'estrangement' can be traced at work within the assumed 'visual' media of film through Arnheim's concept of the 'indirectness' of the use of the medium. Applied to silent film, this concept works upon the principle of the "artistic use of the delimitation of the picture" (Arnheim, 1959, p. 78). Arnheim's concept of indirectness relies upon a paraphrasing of the event through an *indirect,* or slightly removed, consequence, and the artistic exploration of the limits of the pictorial. Describing his technique at work within the literature of Dante, he notes:

> When Francesca de Ramini tells how she fell in love with the man with whom she was in the habit of reading, and only says "we read no more this day". Dante thereby indicates in-directly, simply by giving the consequences, that on this day they kissed each other (Arnheim, 1959, p. 107).

Such a technique describes a situation, rather than attempting to give a concrete action itself by using an *indirect* representation of the event. Returning to Von Sternberg's *The Docks on New York* (1929), Arnheim shows how this indirectness is seen to function throughout the work. Describing a specific scene of a shooting, in which the sound of a gunshot is made visible through paraphrasing it through the visual of a sudden rising of a flock of birds (Fig. 11). Arnheim notes how such an editing choice is not merely a tactic on the part of the director to deal with the silence of the medium, (as it is enough to see the revolver fire, or see a wounded man fall (1959, p. 34)), but is an artistic paraphrase, an "indirect representation of an event that is strange to it" (1959, p. 107). The spectator, also, does not only infer that the shot has been fired, but actually sees something of the quality of the sound itself - the suddenness and the abruptness given visually, is the exact quality the shot possesses acoustically (Arnheim, 1959, p. 108). Instead of giving an audible occurrence itself, the transposition into something visual gives its "telling characteristics" (Arnheim, 1959, p. 109) enough to be experienced as present through perception. By using an indirect representation of an event (the sound of a gunshot) through a material that is indirect to it (visible flock of birds), or, as seen in Dante, by not directly giving the action itself but only its consequences, the techniques of indirectness allow the perceiver to experience telling characteristics of the event through an indirect transposition of another event.[5]

In an example of a different kind, the delimitation of the pictorial through the indirect framing of a shot is used to estrange the work. In *The Docks of New York*, Arnheim again discusses a scene that purposely ignores the framing of the most important part of the shot, a scene in which a woman commits suicide by jumping off a boat (Fig. 10). Arnheim notes how the only thing shown within the shot is that of the partial reflection on the quivering surface of the water, of a partially framed deck of a boat with the woman standing at first and then jumping over board (1959, p. 78). This example demonstrates estrangement through the delivery of a "direct" characteristic (of the story of the suicide) through an indirect and unfamiliar view (Arnheim, 1959, p. 78).[6] The camera is placed in such a position that the most important elements of the shot, the boat and the woman, do not directly appear at all.

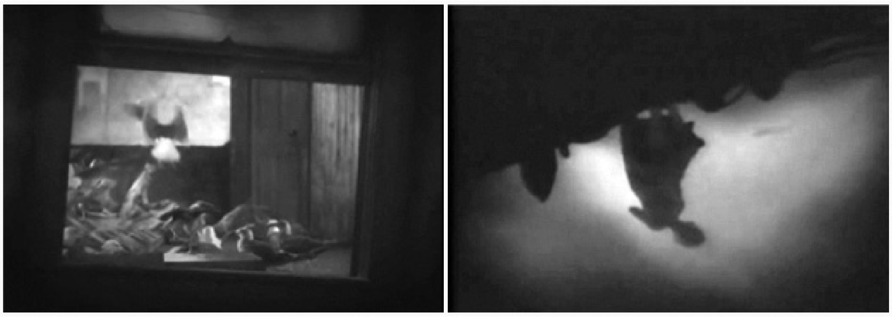


Fig. 10-11. *The Docks of New York* Gun shot; *The Docks of New York* Suicide.

The utilisation of estrangement within silent film works to actively involve the spectator's imagination by paraphrasing an event within the work through indirect representation of an event that is strange to it (Arnheim, 1959, p. 107). Describing the event of a gunshot through the image of a flock of birds paraphrases the event of the gunshot through this slightly removed event. Such a technique visually produces the 'telling characteristic' of the sound of a gunshot, instead of giving an audible occurrence in itself, as such the transposition into something visual gives its characteristic enough to be experienced as present within perception. The indirectness through delimitation of the image works through the removal of key elements from the composition, composed through an unfamiliar point of view. The ambiguity of the suicide (Fig. 12) estranges the event through the minimalism of recognisable elements of the mise-en-scene and through the ambiguity created through the reflections of the water.[7] Arnheim's focus upon silent film, in particular its artistic potential, demonstrates the defamiliarizing effects within a silent film, through estrangement, indirectness and delimitation. The synthesis has revealed three conditions by which defamiliarization may be at work within film: (1) the paraphrasing of one sense or event (sound) through an indirect*,* or slightly removed consequence of another (visual); (2) transposing an event through an indirect, and unfamiliar point of view and (3) through the work of ambiguity and minimalism of mise-en-scene and composition. Such formal treatments at work within an advertising film aim to catch the imagination of the spectator, to enthrall them through unusualness, to actively involve their familiarity, to invoke the unseen.

Epilogue

[The unseen Chaos]

> But the spectator, who perhaps might have watched a direct shot of the event with merely passing interest, is caught and thrilled by the unusualness of the presentation (Arnheim, 1959, p. 79).

As Arnheim notes, the techniques of indirectness can catch the attention of a spectator, with just a passing interest, with an unusualness that thrills and engages. The contextual literature uncovered through the workings of the [unseen] Modernist eye have positioned, through artistic techniques of estrangement, the techniques of minimalism and ambiguity as core attributes of the human perceptual system, a system which constantly enacts a experiential familiarity. It is through this context that the minimalism and ambiguity of the *Hamlet Cigars Music Teacher* advert can be shown to defamiliarize the work, utilising the three conditions of defamiliarization: (1) through the work of ambiguity and minimalism of mise-en-scene and composition; (2) the paraphrasing of one sense or event through an indirect, or slightly removed consequence of another and (3) transposing an event through an indirect, and unfamiliar point of view.

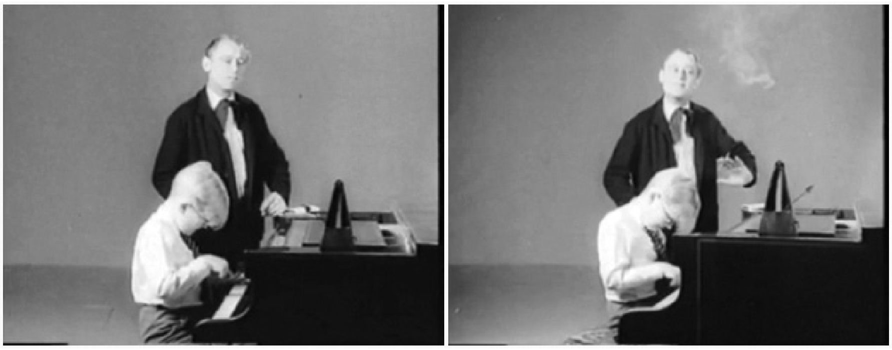


Fig. 12 - 13. Hamlet Cigars Music Teacher.

The work primarily aims to defamiliarize, through the use of ambiguity and minimalism of mise-en-scene, composition and construction. The framing of a consistent fixed straight-on point of view (Fig. 12) with minimal camera movement. The mise-en-scene is stripped to its bare minimum, using specific props to signify the context of a music lesson, such as a piano, metronome, boy and teacher, sparingly to punctuate the setting against a blank set (Fig. 12). The acting style is defamiliarized, held back through small gestures and minimal movements; the boy's playing is reduced to a physically tense, stabbing of the keys with his pointed fingers, the disdain of the teacher over the boy's playing is realised predominantly through his static posture and facial expression (Fig. 12). Little is given through the mise-en-scene itself, the tension between chaos and calm within the work is defined through the structure of the work itself and the use of the sound.

The structure of the work itself, aims to defamiliarize through presenting the minimal possible construction of its shots, shot types, shot lengths, movements, and rhythms. The entire advert consists of eight shots, which utilise only three types of shots. The work uses a single repeated pattern of close-up and medium shots that is maintained throughout the entire work. This pattern of shot types describes the change from chaos to calm through a change in the accompanying shot lengths. The first, chaotic half is constructed from a pattern of small and medium length close-up and medium shots. Within the second, calming, half the pace of the work changes and is constructed through long and medium length shots through the same use of medium and close-up shots (Fig. 13). The shot lengths are constructed to describe the change from the chaotic to the calm, and through a single change in a repeated pattern of shot types, defamiliarizes the pattern in the second half, describing the tension between chaos and calm.

The minimal mise-en-scene of the work gives little in the way of the presenting of the tension between chaos and calm; it is the sound that functions to paraphrase this emotional feeling within the work through the aural. The characteristics of the chaotic and physical playing style of the young boy in the first half of the work is paraphrased through the sound of the out-of-tune notes. The second half characterises the feeling of calm paraphrased through the use of *Air on a G-string*. This tension between the chaos and calm of the sound also works over the image by 'estranging' the experience through an indirect, and unfamiliar sonic experience during the first half. The chaotic unfamiliarity of the out-of-tune notes (notes that are 'estranged' from *Air on a G-String* itself) defamiliarizes the work, creating the chaotic anxiety of the first half, before eventually leading into the calming familiarity of Bach's *Air on a G-string*.

Conclusions: A Very Human Endeavour

The discovery of defamiliarizing techniques within the Hamlet Cigars advertising film is not surprising given the conditions of embodied perception outlined throughout this paper. As the multi-sensory world of the senses is always present within the perception of 'visual' media, this specific treatment of the film form aims to catch the imagination of the spectator, to enthrall them through unusualness to actively involve their familiarity. The concept of the 'autonomy of the pictorial art' relied not just upon the autonomy of the purely visual from human experience and knowledge, but also on the autonomy of art itself from any other human endeavour. The assumption of these techniques as endemic to autonomy of the *artistic*, as exemplified through Greenberg and Arnheim, is challenged through evidence of these techniques permeating throughout psychology and studies of perception. Subtly traceable throughout the literature, everyday perceptual experiences and 'visual' ephemera such as ink blots, images within clouds, calligraphic marks, ambiguous doodles and the medium of comics, all work within the parameters of defamiliarization. The treatment of advertising forms, from the assumption of an autonomy within the arts, subsequently separates artistic practice from other human activities such as the psychological sciences and crafts, which undermines not only the contributions through the interactions between the practices themselves, but also clouds the very nature of these practices – as a part of a very human creative endeavour.

Notes

[1] Endemic to the European funded research project (HERA) 'Technology Exchange and Flow' led by Prof. dr. Michael Punt, Transtechnology Research, Plymouth University.

[2] Arnheim's discussion is based upon the viewing practices of the cinema event, and the ideology of the apparatus. Such events restrict the experience of the media – touching and smelling of painting etc.

[3] This minimalism of a whole multi-sensory experience is also utilised through the accompaniment of music with the projection of the silent films.

[4] Such evidence is also found within the medium of comics, in which the minimal visual style of the comic actively involves the reader's own experience. Scott McCloud presents a multi-sensory notion of 'closure' in which the visual is supported by the reader's experience, which constitutes much more than the visual, by providing an example of being within a kitchen environment. McCloud notes how we can `hear` the boiling pot, we can almost *smell* the food being cooked in the kitchen, even *feel* it or *taste* it (McCloud, 1993).

[5] The structuring of the narrative or expression of a film work through the audio accompaniment is well documented (Chion 1994, 1999). Through such evidence, Arnheim may seem to ignore the use of the accompaniment of sound with the film event as structuring the visual work, however, his focus lies not upon the reduction of a film work to the audiovisual, but upon the concept of the "parallelism of complete segregated representations" (1959, pp. 202-205), which argues that the expression through the combination of separate means of expression of the work (audio, visual, etc.) lies not in the work itself, but at a 'second layer' of a higher faculty, that of the of the perception of the spectator. As such, no one media track is privileged in forming the expression, they all combine in the experience of the spectator themselves. Arnheim's focus here is upon the expressive visual track, as such he does not mention any other accompaniment.

[6] Such a formal technique was prominent within Russian Constructivist photography of the early 20th century. Alexander Rodchenko's concept of rotation fought against what he called the all too familiar 'navel' point of view (with the camera resting on the stomach) that had become canonised within amateur photography. He aimed to photograph from unusual, unfamiliar and strange points of view; photographing everyday objects in everyday situations in ways so long as they remained unrecognised.

[7] Such techniques of estrangement through minimalism can be seen within the work of the German playwright Bertolt Brecht, the early productions of whom Arnheim attended shortly after he began to write critically about film.

References

Arnheim, R. (1959) *Film as Art*. Berkeley and Los Angeles: University of California Press.

Bearne, G. (2000) 'Staging Authenticity: A Critique of Cavell's Modernism', *Philosophy and Literature*, 24, pp. 294-311.

Chion, M. (1994) *Audio-Vision: Sound on Screen*. New York: Columbia University Press.

Chion, M. (1999) *The Voice of Cinema*. New York: Columbia University Press.

Cowan, M. (2010) 'Advertising, Rhythm, and the Filmic Avant-Garde in Weimer: Guido Seeber and Julius Pinschewer's Kipho Film', *October*, 131, pp. 23-50.

Crawford, L. (1984) 'Viktor Shlovskij: Différance in Defamiliarization', *Comparative Literature*, 36 (3), pp. 209-19.

Fried, M. (1982) 'How Modernism Works: A response to T.J Clark', *Critical Inquiry*, 9, pp. 217-234.

Gamboni, D (2002) *Potential Images: Ambiguity and Indeterminacy in Modern Art*. London: Reaktion Books.

Gombrich, E. (1964) *Art and Illusion*. Princeton: Princeton University Press.

Gibbons, J. (2005) *Art and Advertising*. London: I.B. Tauris.

Greenberg, C. (1960) 'Modernist Painting', in O'Brian, J. (ed.) (1986). *Clement Greenberg: The Collected Essays and Criticism*. London, Chicago: The University of Chicago Press.

Higgins, S. (2011) *Arnheim for Film and Media Studies*. New York: Routledge.

Krauss, R. (1986) 'Antivision', *October*, 36, pp. 147-154.

Krauss, R. (1993) *The Optical Unconscious*. London: The MIT Press.

McCloud, S. (1993) *Understanding Comics*. New York: Harper Perennial.

Merleau-Ponty, M. (1962) *The Phenomenology of Perception*. London, New York: Routledge Classic.

Shklovsky, V. (1914) *Theory of Prose*. London: Dalkey Archive Press.

Spiegel, L. (2008) *TV By Design: Modern Art and the Rise of Network Television*. Chicago: University of Chicago Press.

A Monstrous Rhinoceros (as from life): Toward (and Beyond) the Epistemological Nature of the Enacted Pictorial Image

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A Monstrous Rhinoceros (as from life): Toward (and Beyond) the Epistemological Nature of the Enacted Pictorial Image

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Abstract

This paper reveals how both contemporary and prior views of the nature of the pictorial arts since early modernism have been underpinned by the classical concept of *mimesis*, and as a result has brought with it a pre-occupation with both representation and the privileging of the visual. Through tracing the concept of mimesis from its Platonic and Aristotelian roots, the paper will reveal how the concept permeated the visual arts during early modernism, particularly through the work of art historian Aby Warburg. The concept remained dominant within art history until the late twentieth century, and still has its lingering grip on the visual within non-representational models. In discussing 'the more than visual' nature of the pictorial image, the paper draws insight from 'enactivist' literature; particularly Francisco Varela's concept of 'perceptual guidance by action' provides a framework within which to theorise perception as structured by movement and action, and as such the whole multi-sensory-motor experience. Providing a theoretical platform within which to re-think the pictorial image as a multi-sensory-motor process in which no one sense modality is privileged. As such, in offering a speculative theory, the paper maintains, the 'enacted pictorial image' should be theorised as a 'trace', not of a visual world of experience, but of an entire enacted reality.

Introduction

Since early modernism, the conventional view of art and of art history was one that removed art from the stream of lived experience, to treat it as an expression of the imagination of the artist, and as such as a symbolic representation of a concrete external reality (Ingold, 2010; Malafouris, 2007; Wind, 1983). The questioning of the epistemological role of the pictorial image is enjoying a current resurgence within fields dealing with the visual arts, specifically in light of contemporary non-representational models of perception and cognition. From attempts to understanding the practice of drawing as 'bringing forth' of a reality (Cain, 2010), to rethinking paleontological images through its 'processes' of becoming (Malafouris, 2007; Ambrose, 2006). Within the field of anthropology, the symbolic (representational) nature of 'art' has been strongly contested, instead, taking a pragmatist approach, proposing that we should consider the activities of drawing, painting and carving not as a means of representing a world, but of revealing or bringing forth a world through a kind of 'perceptual visual thinking' (Malafouris, 2007, p. 299) linked to the sensi-motor engagement of the artist and the world. Such approaches maintain that in doing so, the studying of the pictorial image (specifically that of the Palaeolithic era) offers radical new epistemic access to the world of visual experience.

This paper positions itself within this debate, and aims to show that whilst efforts within anthropology move away from the underpinning of representation, a further condition remains, that of the privileging of the visual. To begin to tackle this issue, the paper will reveal how both contemporary and prior views of the pictorial arts since early modernism have been underpinned by the concept of mimesis, considered to be the oldest theory of the representational arts, which, as I will show, brought with it a pre-occupation with both representation and the privileging of the visual. Through tracing the concept of mimesis from its Platonic and Aristotelian roots, the paper will reveal how the concept permeated the visual arts during early modernism, pioneered by the work of art historian Aby Warburg, and remained until the late twentieth century, and still has its lingering grip on the visual within non-representational models. In discussing the more than visual nature of the pictorial image, the paper draws insight from 'enactivist' literature; the concept of 'perceptual guidance by action' (Varela *et al.*, 2001) provides a framework within which to theorise perception as structured by movement and action, and as such the whole multi-sensory-motor experience of the artist. Providing a theoretical platform within which to re-think this 'perceptual visual thinking' as a multi-sensi-motor process in which no one sense modality is privileged. As such, in offering a speculative theory, the paper maintains, the 'enacted pictorial image' should be theorised as a 'trace', not of a visual world of experience, but of an entire enacted reality of the artist.

1. Imagination: The 'Visual Mental Image'

As Matthew Potolsky reminds us, the concept of mimesis is considered to be the oldest theory of the Western representational arts, which has survived well into the twentieth century (Potolsky, 2006; Sorbom, 2002). Established during the Classical period in Greece as a means to characterise the epistemological nature of painting, sculpture, poetry, music, dance and theatre as an art (Sorbom, 2002), in complete contrast to other forms of human inquiry,[1] such as history and science, which were seen as a form of universal truth and reason (Potolsky, 2006). In this section I will show how the concept of mimesis rests upon two basic epistemological assumptions that (1) the mind and world are as separate domains, and (2) the visual nature of human experience.

The nature of mimesis during the Classical period is divided between the thought of Plato and Aristotle, and rests upon the core distinction of an artwork as a 'copy', 'imitation', or 'similarity' of an pre-defined external 'real' world, through which is drawn a distinction between the *real* (the concrete object) and the *mimemata* (a painting, sculpture, prose or music), the result of the process of mimesis. Both Plato and Aristotle remain faithful to such a dichotomy, however they have differing views on the epistemological nature of the imitation itself (Sorbom, 2002; Potolsky, 2006). The Platonic model of the image is based upon the concept of an exact copy, or 'mirror image', of the 'real' world (Potolsky, 2006). As such, the Platonic model argues that images and artworks are no more than reflections of the world as it is in reality; passive reflections that require no skill on the part of the artist (pp. 23-24). Such a position on the imaginative image, Potolsky notes, leads Plato to see mimesis as a threat to concrete knowledge and reason, as any imitation that is said to be knowledge of an object, can only ever be illusory (p. 24), and potentially deceptive. In contrast, Aristotle argues that *mimemata*, far from being mere 'mirror images' of reality, have an epistemological value in themselves (pp. 33-38). Rather than merely copying, Aristotelian mimesis is linked directly to perception, and seen as *simulating*, through the imagination, as a self-contained 'heterocosm' that *simulates* the 'real' world through our ways of knowing it. As such, Aristotle's mimesis is not conceptualised as an exact copy of reality, but as a "craft with its own internal laws and aims" (p. 33). Fundamentally, in maintaining mimesis as an act of simulation, Aristotle, in contrast to Plato, holds that mimesis is in fact a natural aspect of human life, and even a unique source of learning. Aristotle is thus able to maintain that at some level each area of knowledge[2] is itself an imitation, maintaining that human beings learn through the process of imitation itself. Such a move to understanding knowledge as imitation, posits mimesis as an active aesthetic process. To Aristotle, the poet (or artist) does not *imitate* reality, but *simulates* and brings reality into existence through the process of mimesis.

Aristotle's insistence upon the epistemological value of mimesis, and its inquiry, had a direct impact upon the knowledge systems of Greek Culture. Examples of his model of *simulation* mimesis, which requires the active human imagination, can be traced to permeate throughout the Greek allegorical mnemonic and knowledge system, the 'art of memory', as studied through the work of the anthropologist Frances Yates. It is here that the reliance upon both representation and the visual, that underpins mimesis, can be clearly seen as influencing the culture, through the system of creating imaginative 'visual mental images' from verbal concepts, to aid memory.

The art of memory[3] was a memory practice, conceived as a theoretical mnemonic tool for the creation and subsequent recollection of 'visual mental images' from memory within oral cultures (Curruthers, 2009). The practice relied upon the principle of the translation of a verbal concept or object, through the imagination of the user based upon mimetic knowledge, into 'visual mental images' arranged within an fictional, imagined space (Sapir, 2006; Yates, 1966), a principle that Frances Yates traces to be influenced by the Aristotelian concepts of knowledge as imitation through mimesis. It is here that the underpinning conditions of representation and the bias of the 'visual' endemic to mimesis, are brought out through this article through the three conditions of 'the art of memory' system: (1) the translatability of verbal concepts into 'visual mental images' (Sapir, 2006, p. 85); (2) the necessity of an 'imaginary fictional place' in order for something to happen, and (3) the disfigurement and unusualness of the 'visual mental images' of objects to be placed within imaginative fictional places (Yates, 1966, p.19).

Yates describes how Greek memory systems built around the time of Aristotle shared a focus upon the importance of the role of the imagination in perception, drawn out through his treatise in *De-Anima*:

> The perceptions brought in by the five senses are first treated or worked over by the faculty of imagination, and it is the images so formed which become the material of the intellectual faculty (Yates, 1966, p. 46).

Here, she maintains not only the importance of the imagination as the intermediary between perception and thought, but also within the creation of 'visual mental images' that became the very material of the intellect itself. Imagination to Aristotle is pictorial in nature, and as such 'the soul never thinks without a mental picture' (p. 47). This 'pictorial' nature of imagination, and intellect, is the fundamental founding support for the use of 'images' within the Greek art of memory system that followed. Yates reveals, by quoting Cicero, how the memory systems, based around the time of Aristotle, required a mediation of the non-visual senses through a visual image,[4] due to the superiority of the visual:

> [T]he most complete pictures are formed in our minds of the things that have been conveyed to them and imprinted on them by the senses, but that the keenest of all our senses is the sense of sight, and that consequently perceptions received by the ears or by reflexion can be most easily retained if they are also conveyed to our minds by the mediation of the eyes (Cicero, in Yates, 1966, p. 19).

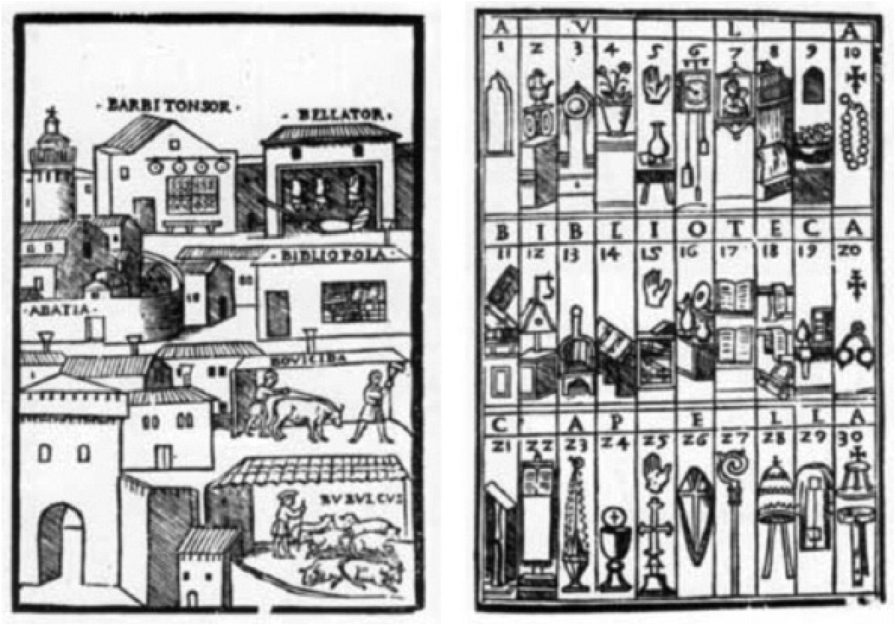


Fig. 1. Depictions of an Abbey Memory System (1533). Left: Abbey Memory System. Right: Images used within the Abbey Memory System. (Yates, 1966, Fig. 6a, 6b)

Yates reveals that to Aristotle, memory "belongs to the same part of the soul as the imagination; it is a collection of mental pictures from sense impressions but with a time element added" (p. 47). The 'art of memory' systems of this period thus required the construction of a 'visual mental image' from an oral description, in which visual objects are placed within an imagined place (Fig. 1). To Yates (p. 23) the 'art of memory' systems function upon this privileging of the visual within imagination, underscored by two basic principles laid out by Cicero; the rules for places and the rules for images. The rules for places require the creation of 'fictitious places', in contrast to the 'real' places[5], the rules for images (which are placed within a 'fictitious place') rely upon the core concept of making the mnemonic images as striking and unusual as possible through their ugliness or deformation, in order to fully awaken the memory during recollection[6] (p. 23). Yates shows how, for Cicero, to remember (for a long periods of time) requires making the images unfamiliar, novel, and to visually disfigure[7] them in some way within the imagination:

> [I]f we set up images of a kind that can adhere longest in memory. And we shall do so if we establish similitude's as striking as possible; if we set up images that are many or vague but active; if we assign to them exceptional beauty or singular ugliness [...] or if we somehow disfigure them (Yates, 1966, p. 26).

The 'art of memory' system, underpinned by the Aristotelians concept of mimesis, rests upon three key points: (1) the perfect, transparent translatability of verbal concepts into 'visual mental images' (Sapir, 2006, p. 85). (This does not necessarily mean that there is a resemblance between what has to be memorised and its mental image); (2) an absolute necessity of a 'fictional place'; in order for something to happen, the place becomes inseparable from the images themselves (Yates, 1966), and (3) the disfigurement and unusualness of the 'visual mental images' created in order to awaken the memory of them (Yates, 1966). Surveying the Classical concept of mimesis and its direct influence upon the 'visual memory systems' reveals both a dichotomy between mind and world, and a bias toward the visual, pictorial nature of imagination.

Aristotelian mimesis, as *simulation*, draws a dichotomy between *perception* (of sense data of the real world), and the *imagination* (of the intellect that simulates or represents the sense data of the real world). Mimesis here is a product of the imagination, and so is the 'mental visual images' it produces. The reliance upon both *representation* and the *visual* within the theory of mimesis would underpin later thought regarding the epistemological nature of the 'pictorial image' during a revival of mimesis within art history and anthropology during the modernism of the nineteenth and twentieth centuries, in which the pictorial image was theorised as a projection of an expressive, imaginative, psychological disposition of the artist.

2. Perception: Modernism and the Emotional Mimetic Image

The resurgence of mimesis throughout the late nineteenth century is placed alongside the rise of the general interest in empathy within the aesthetics of late nineteenth century modernism (Rampley, 2001, p. 124). During this period mimesis takes on a much wider scope being placed directly within the category of human perception, within which Robert Vischer's essay 'The Optical Sense of Form' was a central text.[8] Vischer emphasises the role that emotions and feelings play on our perception of the visible world, maintaining that our "aesthetic response to form is at least partially conditioned by the inner psychological life of the percipient" (p. 124). As such he argues: "It is quite possible in the sphere of imagination for purely formal phenomena to coalesce with other essential features of our humanity. This is the work or achievement of our representational or imaginative faculty" (Harrison, 1998, pp. 690). Such an increase in the interest of empathy and mimesis within aesthetics takes on a wider scope through the emerging field of anthropology (Ramley, 2001, p. 124), particularly applied to the nature of the pictorial image. Predominantly within the work of the art historian Aby Warburg, who in aiming to join the psychological with the anthropological,[9] recognised the perceptual possibility of mimesis (Rampley, 2001) applying it to the study of the pictorial arts, not merely as a product of the emotional faculty of the imagination, as Vischer claimed, but within the activity of the physical expression of the entire body (Wind, 1983).

In asking the question of how "human and pictorial expressions originate; what are the feelings or points of view, conscious or unconscious, under which they are stored in the archives of the memory?" (Gombrich, 1970, p. 222), Warburg applied the concept of mimesis, in order to foreground perception in the studying of the pictorial image as a concrete object itself, as conditioned by the physical mimetic experience of the body and thus the techniques used.[10] Warburg took on the concept of mimesis to discuss the nature and origins of the 'visual pictorial image', as being underpinned by the emotions and psychology of the artist who formed them, his 'pathos formula' expressed his main theory regarding the relationship between what he termed the 'primitive'[11] human psyche and the "manipulation of the external chaotic world that surrounds" (Efal, 2007, p. 221). To Warburg, any stimulus from the outside world always involves, within perception, a projection of a psychologically known 'visual mental image':

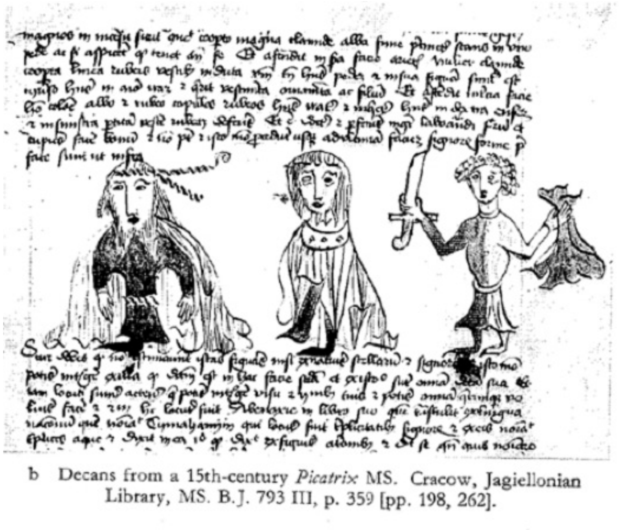
> For any stimulus, be it visual or auditory, a biomorphic cause of a definite and intelligible nature is projected which enables the mind to take defensive measures [...] when a door creaks in the wind [...] such stimuli arouse anxieties among savages or children who may project into such sounds the image of a snarling dog (Gombrich, 1970, p. 217).

For any stimulus, such as a sound, a psychological 'visual mental image' is projected for the cause of the stimulus. It is such a 'phobic reflex of cause projection', Warburg maintained, that is always present at the edge of consciousness (Gombrich, 1970, p. 218). It is upon this principle, of the projection of a psychological 'visual mental image', that Warburg's theories of the origins of the pictorial image, as the projection of the psychological ego, are based. Warburg, like Vischer, focused upon the psychological and emotional projection of the psyche onto and through inanimate objects. However, he differs in that his theories of the 'pictorial image' rest upon the recognition that man was, as Gombrich claims, first and foremost, a tool using animal, who through using tools, was able to widen and extend his ego:

> I regard man as a tool-using animal whose activity consists in connecting and separating. In this activity he is apt to lose the organic sensation of the ego. The hand permits him to manipulate things which, as inanimate objects, lack a nervous system but which nevertheless provide a material extension of the ego. [...] there exists indeed a situation in which man can become assimilated to something that is not he himself precisely by manipulating or wearing objects which his bloodstream does not reach (Gombrich, 1970, p. 221).

It is here that Warburg extends mimesis, beyond that of a faculty of the imagination to the physical act of manipulating or wearing an object, and is thus able to maintain that man made objects and pictorial images are mimetic in origin. To Warburg, mimesis moves beyond an imaginative reflection of the active mind and becomes situated within the expressive gestures of the experiencing body itself (Wind, 1983, p. 30-32). As such, to Warburg, human muscles themselves serve the purpose of mimetic expression (p. 31), which is always associated with the minimum of reflection. In pursuing this move, Warburg was able to suggest that the nature of the formation of the pictorial image must be studied "*in statu nascendi* in the shape of the expressive gestures made by the body" (Wind, 1983, p. 30). To Warburg, the 'style' of artefacts and images are formed in the very expressive gestures of the body that formed them. Using this extended theory of mimesis, Warburg was able to trace a clear cycle of the development of the image of the Greek Hero Perseus, from the Greek origin to the *perversion* of that form in a distorting Oriental and mediaeval tradition (Fig. 2), through to its restitution in the Renaissance (Gombrich, 1970, p. 194). Warburg suggested that at each stage of *re-form* within these oral cultures, the form of Perseus was 'sterilized'[12], stripped of expressive meaning, through verbal descriptions and translations (becoming a 'stimulus' much like the sound of creaking door) and 'polarized' or given new expressive meaning (the projection of a new mental image – like the snarling dog) through new cultural imaginations, which ultimately structured and formed the new visual aesthetic.

Warburg aimed to isolate and study these psychological factors that conditioned the formulation of style (Wind, 1983) of the pictorial image throughout different cultures and times. As such he believed that "any attempt to detach the image from its relation to religion and poetry, to cult and drama, is like cutting off its lifeblood" (p. 25). It is through the studying of the concrete object itself, as conditioned by the nature of the techniques and psychology used to make it, that Warburg aimed to understand the epistemological nature of the pictorial image, as a projection of imaginative, visual and psychological dispositions.



b Decans from a 15th-century *Picatrix* MS. Cracow, Jagiellonian Library, MS. B.J. 793 III, p. 359 [pp. 198, 262].

Fig. 2. Images from a 15th-century Arabic Magic Manuscript, depicting 'Persues' (far right). (Gombrich, 1986, pl. 39)

3. The Psychologically Charged Image

Such a 'psychology of the pictorial arts' remained central to discussions of fields related to the visual arts well into the 20th century, and became the focus of discussions of the psychological nature of the pictorial image.[13] Particularly traced through the work of the art historian Ernst Gombrich, these theories inherited the concerns and biases endemic within the traces of mimesis. Gombrich's concept of 'schema and correction' can be seen as a direct extension of Warburg's 'pathos formula'. The theory of 'schema and correction' rests upon a model of perception that Gombrich calls the 'searchlight theory'[14], which emphasises the active role of the living organism, with their experiences (schema) in probing and testing (correction) the environment:

> It might be said, therefore, that the very process of perception is based on […] the rhythm of schema and correction. It is a rhythm which presupposes constant activity on our part in making guesses and modifying them in the light of experience (Gombrich, 1964, p. 272).

Gombrich maintains that our perceptions are representational, and are bound within the constant activity of the organism, beginning as vague and general, and as we require greater clarity through experience, they will become progressively more articulated. He maintains, like Warburg, that the 'familiarity' of our psychological experience (what he called a 'schema') is always a frame of reference for the 'unfamiliar' experiences of the external world. He applies his concept of 'schema and correction' to the pictorial image through discussing the activity of the artist, within which he argues that "the artist begins, not with his visual impressions of an external world, but with his idea or concept" (Gombrich, 1964, p. 62). To Gombrich, we must always have a starting point or a standard of comparison "in order to begin that process of making and matching and remaking which finally becomes embodied in the finished image" (p. 321). The artist's process of depiction works much like a simile in which the process of *copying*, of the 'motif' (the concrete thing being depicted) is compared to the artist's 'schematic form' (prior experience). He outlines the process of 'schema and correction' through the discussion of copying an ambiguous shape such as an ink blot:

> The draughtsman tries first to classify the blot and fit it into some sort of familiar scheme – he will say, for instance, that it is triangular or that it looks like a fish. Having selected such a scheme to fit the form approximately, he will proceed to adjust it, noticing for instance that the triangle is rounded at the top, or that the fish ends in a pigtail (Gombrich, 1964, p. 64).

To Gombrich, the 'schema' represents the power of expectation, rather than that of pure conceptual knowledge, which moulds and shapes how we understand what we see in life. He demonstrated this through the test of 'serial reproduction'[15] (Bartlett, 1995 p. 180), in which a series of drawings are produced each depicting a series of transformations from the original Egyptian owl to a cat through the serial copying and reproduction from memory (Fig. 3). It is around reproduction five that the 'unfamiliar' shape, which has no pre-existing category within the schema of experience of the subjects, is 'distorted' to gradually assume the shape of a pussycat (Gombrich, 1964, p. 64). To Gombrich, where the pre-existing category (such as the ambiguous nature of the owl/cat hybrid) is lacking, a 'distortion' founded upon the ideas or concepts of the artist schema, takes over (p. 64).

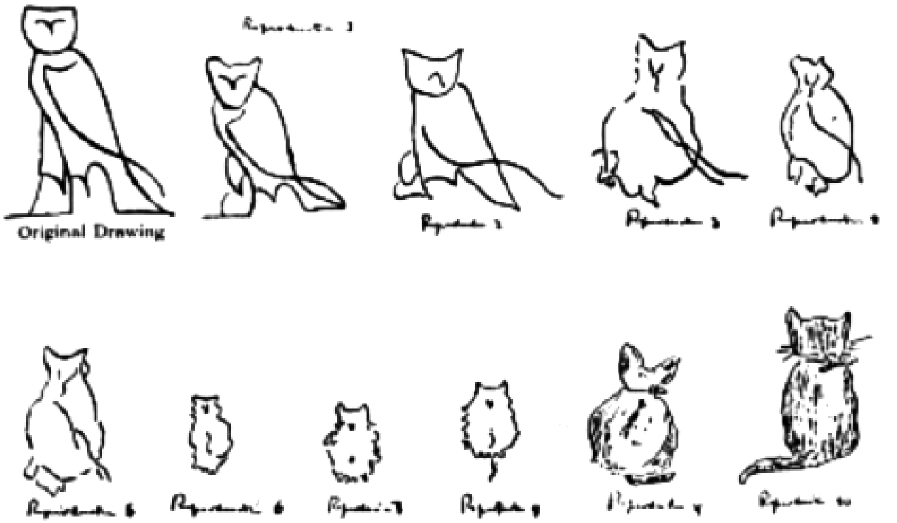


Fig. 3. Transformation of a Hieroglyph through serial copying. From Bartlett 1995 (Gombrich, 1964, p.64).

Thus to Gombrich, the 'familiarity' of our own prior experiences "will always remain the likely starting point for the rendering of the unfamiliar" (p. 72). Upon this premise Gombrich maintains that an existing representation (based upon the artist's schema) will always have an influence over the artist, even when he strives to record the "truth" (p. 72), which he maintains results in "adaptations" of the "motif" which can be seen as "distorted" representations of reality. The workings of such an approach become explicit within his reading of Albrecht Dürer's woodcut of a rhinoceros (Fig. 4) from 1577.

Albrecht Dürer had never seen a rhinoceros first hand. When creating his woodcut of a rhinoceros, he had to rely upon descriptions and second hand evidence[16]: a sketch of the animal that had been sent to Rome as a present for Pope Leo X and a Portuguese newsletter that was sent to Nuremberg playing out the stories of the bitter rivalry between the elephant and rhinoceros from Pliny the Elder[17] put to test by the King of Portugal (Batrum, 2002, p. 283). It is together with these brief sketches and a description from a newsletter that Gombrich suggests were used to begin to build up Dürer's depiction (Gombrich, 1964, pp. 70-71), within which he filled in the 'gaps' from his own imagination coloured by his own experiences rendering exotic beasts and dragons, evident within the details of the image. From the Portuguese descriptions of the triumphant fight of the rhinoceros, the creature is given skin like plated armour and hard scales covering the legs, it also has a second horn on its back (possibly inherited from the stories of Pliny) with a powerful stance (Fig. 4). It is this fusion of prior experience/expectation and 'information' of the descriptions of a rhinoceros that, for Gombrich, builds up the artist (distorted) depictions of the world.

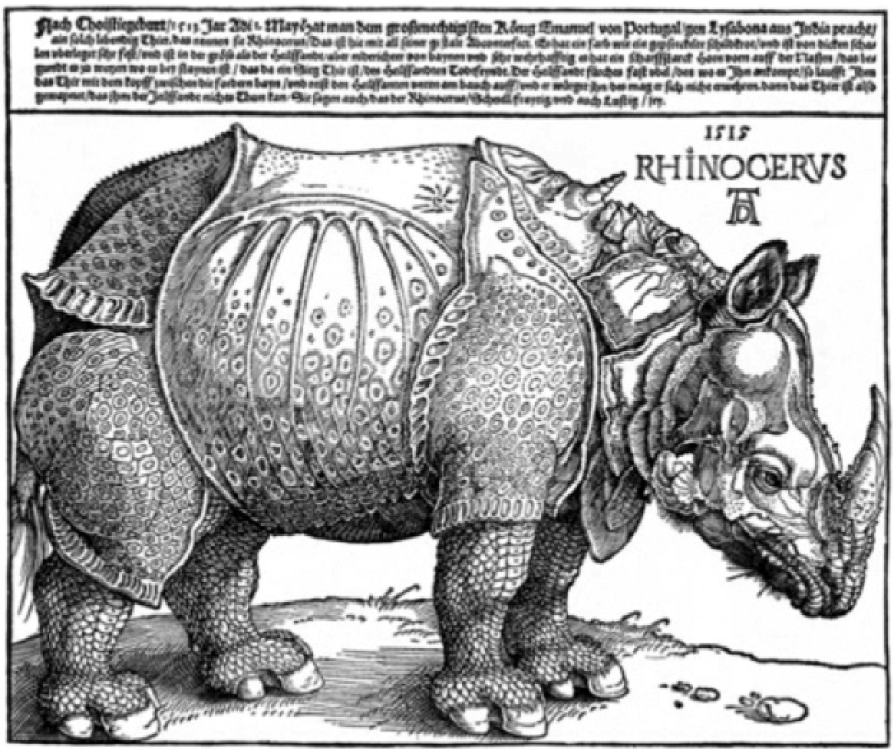


Fig. 4. Albrecht Dürer, Woodcut – Rhinoceros, 1515.

As the literature has shown, through the underpinnings of empathy, mimesis and psychology to reading of the pictorial image during Western Modernity, we can read the concerns with both representation and the visual that situate the pictorial image: (1) as a product of human perception and imagination, as a 'copy' of an external world; (2) as treated as a 'visual' artefact, and (3) as no more than an expression of the psychology, emotion and experience of the artist. Such an understanding treats perception and the external world as separate epistemological domains, as such these images are treated as visual representations of something; an owl, a rhinoceros, grounded upon the notion of representation. The Study of Dürer's Rhinoceros demonstrates well the visual bias inherent within such an approach, through the reading of the psychologically charged and distorted 'visual features' such as scales, body armour and dual horns as visual representations (or distortions) of actual 'visual' features, other non-visual aspects are not considered. In viewing these images through such a representational model, the epistemological status of the image is reduced to a 'perversion', 'deformation' or even 'mis-constual' of a single concrete reality, representing the psychological disposition of the artist.

In aiming to overcome this epistemological dualism inherent within the symbolic readings of the psychological models of the pictorial image, anthropologist Tim Ingold (2010, pp. 110-131), maintains that in denying the views of Western Modernity and the reliance upon representation that treat artworks and depictions as an expression of the imagination of the artist, what we understand as representational art, should "be understood as ways not of representing the world of immediate experience on a higher, more 'symbolic' plane, but of probing more deeply into it and of discovering the significance that lies therein." Drawing, carving, painting and depicting, to Ingold, are not a matter of representing a world, they are a process of "thinking" a world, of "bringing forth" or, as will be outlined in the following section, enacting a world. As the paper will show, such a move compounds the problems of representation, but still leaves behind the lingering privileging of the visual.

4. Thinking: The [Visual] Enacted Image

In shifting from theorising the pictorial image from representing to thinking, Ingold (2010, p. 130-131) maintains that there is no distinction between ecology and art, that there is no distinction between the "organic provisioning" of the environment and the free play of imagination, they are entwined. Ingold suggests that to move away from an understanding of "depictions"[18] as representational, we must better understand the *relationships* between human beings, animals and the land (p. 112). In doing this, the purpose of a 'depiction' emerges as not to *represent*, but to *reveal*, as an *activity* to reach a deeper levels of knowledge and understanding. As such, Ingold maintains that "depictions" are not to be understood as an artistic object for the purpose of further reflection, but as an emerging understanding, between body and world, what could be termed as a process of "embodied thinking" (pp. 126-127). He contends that the activities of carving and painting should not be seen as modalities of the production of art, instead, 'art' should be seen as one "peculiar, and historically very specific objectification of the activities of painting and carving" (p. 131), that is, of the activity of "perceptual thinking". In extending Ingold's insight, Lamfros Malafouris (2010) suggests that the pictorial image should be approached as an activity in itself, whose purpose is not to alter a 'fixed' external world, but to bring forth a world, making available information as a part of a specific human perceptual experience. As such (speaking of the Palaeolithic image), Malafouris focuses upon the 'activity' of imaging as being 'brought forth' from a new process of acting and thinking within the world, as a result of a way of perceptual 'learning' through 'probing' it. Here, images:

> [B]efore and beyond representation, they first 'bring forth' a new process of acting within this world and at the same time as thinking about it. This thinking however, should not be understood –at least not in the first instance- as that of 'higher level' abstract symbolic type. This thinking should be understood in the more basic 'lower' sense, namely as a new form of active sensi-motor engagement (Malafouris, 2010, p. 295).

In moving beyond the symbolic 'higher' level to a 'lower' level of a sensi-motor account, two implications for his theory of 'imagery' emerge: (1) that it enables us to understand seeing and perceiving as a form of 'skillful interactive engagement, as a form of acting in the world' (p. 295) and (2) it enables us to conceive the role of the (Paleolithic) image as a ‘continuous prosthetic part of this probing mechanism and thus a cultural extension of the visual brain’ (p. 295). As such, he maintains that the process and act of drawing or painting is an act of bringing forth a world through perceptual learning and compounded to visual thinking. Based upon this, Malafouris is able to claim that the early Paleolithic cave imagery in fact provide a scaffolding device that enables human perception to gradually become aware of itself, or to think, perceptually, through the very production of images. He demonstrates such a process through tracing the use of basic visual gestalts within early cave art, such as similarity and proximity (Fig. 4), which he sees as evidence of ‘bringing forth’ the possibility of new forms of visual thinking by the image-maker, through the activity of painting itself. This conception of the ‘activity of imaging’ requires not a conception as to *what* the image means, but rather *how* it means, investigated through its most salient perceptual features. To Malafouris, such evidence suggests that through the process or activity of ‘imaging’, the underlying mechanism of human perception itself (of that period) become transformed into an object *for* perception and contemplation (p. 299); a process of ‘active visual thinking’. To Malafouris, the ‘invisible’ gestalt visual patterns he traces throughout the visual works offer us a new mode of epistemic access to the visual world of experience, not as representing a world, but as a mode of active, ‘visual’ thinking of a world.

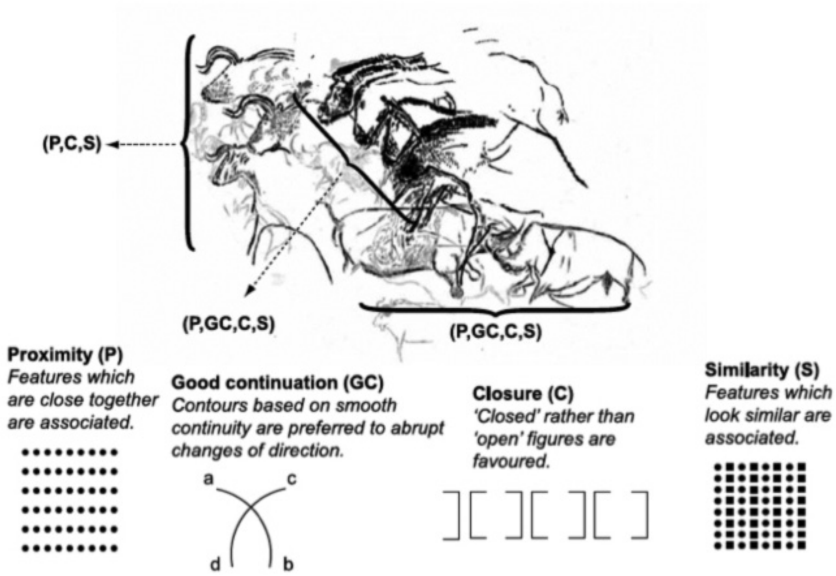

(P,C,S)
(P,GC,C,S)
(P,GC,C,S)
Proximity (P)
Features which are close together are associated.
Good continuation (GC)
Contours based on smooth continuity are preferred to abrupt changes of direction.
a
c
d
b
Closure (C)
'Closed' rather than 'open' figures are favoured.
Similarity (S)
Features which look similar are associated.

Fig. 5. Major perceptual Gestalts, Chauvet Cave, France. (Malafouris, 2010, p. 299)

The embodied anthropological perspective of Ingold and Malafouris counters the modernist pre-occupation tied to mimesis in structuring understandings of the pictorial image; that of representation. However, the second pre-occupation, the privileging of the visual, is still overestimated, we still ‘think’ visually, Malafouris goes as far as to maintain that the pictorial image is for exclusive reflection by visual perception, and that visual images give us epistemic access only to visual experiences of the world. The idea of 'active visual thinking' a world is also a central focus of enacted models of perception and cognition (Varela *et al.*, 2001; Noe, 2003), however, these models suggest that 'visual' perception is guided and structured by the movement of the multi-sensory body, as such the 'activity of imaging' can move beyond mere 'active visual thinking', to encompass an entire multi-sensory enacted dimension of experience.

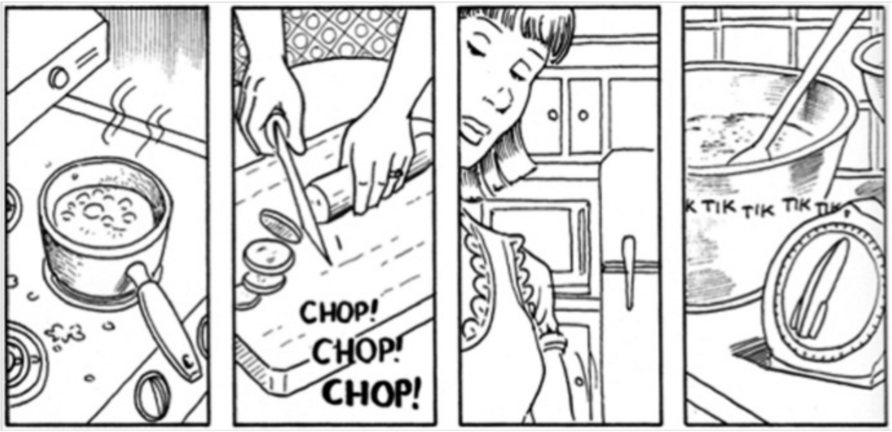

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Fig. 6. Kitchen scene as constructed through the narrative of a comic (from McCloud, 1993, p.89).

'Perceptual Guidance by action' (Varela *et al.*, 1993, p. 175) maintains that as all stimulations are only possible through movement, as such, what we term 'visual' perception is guided by the action of the whole multi-sensory body in the world. Thus, objects are not seen by the visual extraction of features of a pre existing world, but rather by 'features' of the world which are enacted by the perceptual guidance of action[19] (1993, p. 175), in which what we perceive (in this case visually) is structured and guided by the actions and movement of the body. As perception is guided and structured by the movement of the body coupled with the world, 'visual' perception is redundant to and structured by the rest of the enacted dimension[20], which provide a situation in which to theorise the pictorial image within a framework in which no one sense modality is privileged. Evidence to support such thought can be found through a number of sources; Bahrick and Lickliter (2000, pp. 190-201) show how auditory information redundantly supports the visual channel, and as such aids in comprehension and learning. Their 'Intersensory Redundancy Hypothesis' claims that visual learning is more efficient when redundantly supported by audio experience[21]. Such multi-sensory structuring of visual experience can also be demonstrated through the 'visual' media of comics. Scott McCloud (1993, p. 89) notes how in perceiving a seemingly 'visual' only media, in which no sound, taste or smell is materially present, we have no problem in establishing, and experiencing, the multi-sensory context of the scene. In discussing a kitchen scene (Fig. 5), he observes that we can almost smell the food cooking, hear the boiling pot and egg timer and taste the food, perceptually through the assumed visual only panels.

With the insights drawn from 'perceptual guidance by action' we can theorise an epistemology of the pictorial image that does not restrict itself to that of visual experience alone. As we have seen, enacted non-representational approaches to the epistemological status of pictorial images maintain that, rather than resting an epistemological inquiry upon either perception or a concrete reality, that the epistemological status should be placed within the bringing forth, or thinking, of a world through the activities of the codependent system of body and world. As bodily action does not simply express previously formed mental concepts, bodily actions are a part of the activity in which concepts themselves are formed, the process of depiction can be thought of in terms of a coming to know, and a subsequent bringing forth of a world, a thinking of a world. Thinking is not seen as a 'visual' process, but as a multi-sensi-motor process in which no one sense modality is privileged. As such, the enacted pictorial image becomes a 'trace', not of a visual world of experience, but of an entire enacted reality.

Conclusions: A Monstrous Rhinoceros (as from Life)

This paper has shown how in bringing together literature from anthropology, philosophy, cognitive science and art history, we can provide a framework in which the nature of, and discussions of, the pictorial image can move beyond the two concerns drawn from modernism; representation and visual bias, and begin to theorise a status that does not reduce itself to a product of perception, and does not restrict itself to that of visual experience. Such an approach, at present, will be theoretical and speculative, however with further work the intricacies of such an approach will become apparent. This paper can suggest, however, that within such an approach, we can 'read' not merely visual gestalts and patterns, but the entire enacted experience of the artist that formed it, the entire multi sensory experiences, the culture it is embedded within, the use of technologies and the philosophies created and lived by. Such readings could make available for reflection an epistemic access to an entire embodied experience. The Enacted Pictorial Image as such, is not merely a copy nor a perversion, or an expression of a reality; it *is* a multi- faceted reality itself.

Upon further reflection, a revisiting of Warburg's approach seems timely in light of the linking of ecology to imagination through the work of Malafouris and Ingold, revealing the 'lifeblood' of a human artefact lying within its relations to practices, technologies, beliefs, ideas and imaginations. The analysis of the very multi-sensory, experiential aspects of all of these cultural bindings could reveal the deeper roots of the reality that the images and objects brought forth. Upon this thought the paper will conclude with a further question: could we read, for example, within Dürer's Rhinoceros the effects of the emergence within the 16th century of experiments with technologies of travel and flight, such as parachutes and submarines, on the experiential, perceptual and cognitive awareness of the artist through the pronounced physical weight of the rhinoceros itself?

Notes

[1] Potolski (2006, p. 18) outlines how mimesis first appeared within Plato's dialogues as luxurious and unnecessary, existing only among the Hunters, Workers, Actors and makers of women's adornments. It is defined as secondary and unhealthy to an Ideal state, separating it from the real, rational and essential and equated with the emotional and irrational.

[2] Aristotle is careful in his distinctions of different kinds of knowledge (Baktir, 2003). He claims that there are different kinds of truth that are attached to art and philosophy. Art deals with the aesthetic and universal truth, and philosophy with the concrete and absolute truth. Both however, are treated as mimetic.

[3] The Greek culture heavily relied upon mnemonic systems known as the 'art of memory', which existed from the time of the Sophists, through the Middle Ages until the sixteenth century. The 'art of memory' is a theoretical memory system based upon the use of imaginative narrative structures for the improvement of memory, used particularly by orators and poets at the time of Simonides. Frances Yates (1966) traces the sources for the art of memory systems from its Latin roots, within Cicero's *De Oratore*, through the Middle Ages up to the Renaissance.

[4] Yates (1966, p. 19) reveals how through the 'discovery' of the sense of sight as the strongest of all the senses, attributed to Simonides, the art of memory systems rely upon a construction of a 'visual mental image'.

[5] Further conditions for the rules for places can also be seen to rely upon the underpinning of a visual bias. Such as a desolate, deserted, solitary place, of a moderate size, not too brightly lit and not too dark (Yates, 1966, p. 23).

[6] Yates outlines how the rules for images aim to work with the imagination to aid memory by opposing the banal though creating visually striking imaginary: "When we see in everyday life things that are petty, ordinary, and banal, we generally fail to remember them, because the mind is not being stirred by anything novel or marvellous. But if we see or hear something exceptionally base, dishonourable, unusual, great, unbelievable, or ridiculous, that we are likely to remember for a long time" (Yates, 1966, p. 25).

[7] It is through such striking and unusual images that memory is helped by "arousing emotional affects", though figures "wearing crowns or purple cloaks, bloodstained or smeared with paint, of human figures dramatically engaged in some activity", creating an unusual and extraordinary imaginary world (Yates, 1966, p. 23).

[8] Vischer's theories are situated within the prolonged debate between Formalist and Idealist philosophies during the late 19th century, within which he distinguishes two different understandings of content, drawn from the Formalist and Idealist positions respectively: (1) the objectively given content, which is directly presented to us by the object of contemplation in its own right and (2) the subjective content, our own psychological life which as percipients we bring into contact with any and every phenomenon capable of being grasped aesthetically. In attempting to find a middle ground within the debate, Vischer employed the concept of empathy that he maintained could exist both "in the case of aesthetic perception and artistic presentation" (Vischer, in Harrison, p. 690).

[9] The joining of the psychological (through *empathy*) to the anthropological was first outlined within the work of Wilhelm Worringer (1908) in his *Abstraction and Empathy*.

[10] Warburg's positioning of the epistemological within perception is driven by the denial of the formalist 'autonomy of the arts', and its belief in separating the formal artistic object from the context of its formation (Wind, 1983, pp. 23-24).

[11] Warburg's theory of the pictorial image stems from his research and theories of 'primitive' (pre-literate) symbolism, primarily evident through his research regarding the Hopi Serpent Ritual.

[12] Warburg use of the term 'Aesthetic Sterilization' to describe the stripping down of an 'image' (mental or pictorial) of any belief and prior aesthetic so as to allow another aesthetic based upon new beliefs to be created in the imagination. Gombrich (1986, p. 198) notes how this can be best summarised through the description of the process of the ars memoria in creating new imaginative images from verbal descriptions: "No religion, so long as it is believed, can have that kind of beauty which we find in the Gods of Titian, of Botticelli, or of our own romantic poets. To this day you cannot make poetry of that sort out of the Christian Heaven and Hell. The Gods must be, as it were, disinfected of belief; the last taint of the sacrifice, and of urgent practical interest, the selfish prayer, must be washed away from them, before that other divinity can come to light in the imagination." (C.S Lewis, in Gombrich, 1970, p. 198).

[13] Particularly through the work of perceptual psychologists Rudolf Arnheim (1974) and Herman Von Helmholtz (1910).

[14] His model of perception is an attempt to reorient all the traditional views of the human mind, which were based upon what he termed the 'bucket theory of the mind'. The concept of the mind in which sense-data are deposited and processed.

[15] An image (an Egyptian hieroglyph) is given to a subject, who must reproduce the image accurately from memory. This reproduction is then given to a second subject who also reproduces it from memory.

[16] The description of the rhinoceros Dürer inscribed on the top of his woodcut outlines his understanding of the beast: "On 1 May 1515 was brought from India to the great and powerful King Emanuel of Portugal at Lisbon a live animal called a Rhinoceros. His form is here represented. It has the colour of speckled Tortoise and it is covered with thick scales. It is like an elephant in size, but lower on its legs and almost invulnerable. It has a strong sharp horn on its nose, which it sharpens on stones. The stupid animal is the elephant's deadly enemy. The elephant is very frightened of it, as when they meet it runs […]. Because the animal is so well armed, there is nothing that the elephant can do to it" (Translation of text inscribed with Dürer's Rhinoceros woodcut; Bartrum, 2002, p. 287).

[17] Chapter 29 of Pliny's *The Natural History* states: At the same games the rhinoceros was also exhibited, an animal which has a single horn projecting from the nose; it has been frequently seen since then. This too is another natural-born enemy of the elephant. It prepares itself for the combat by sharpening its horn against the rocks; and in fighting directs it chiefly against the belly of its adversary, which it knows to be the softest part. The two animals are of equal length, but the legs of the rhinoceros are much the shorter:

its skin is the colour of box-wood. Cuvier says that this was the single-horned rhinoceros of India. The commentators have been at a loss to reconcile this description with the Epigram of Martial, Spect. Ep. xxii., where he speaks of the rhinoceros exhibited by Domitian, as having two horns. It has been proved that this latter was of the two-horned species, by the medals of that emperor, now in existence. Martial, Spect. Ep. ix., seems also to have been acquainted with the single-horned species. That with two horns is mentioned by Pausanias as the Æthiopian bull. We learn from modern naturalists, that the two-horned species is a native of the southern parts of Africa, while that with one horn is from Asia (Bostock ,1957).

[18] Ingold restricts his analysis to the paintings, drawings, carvings and sculptures of a certain peoples that are known as 'hunter-gatherers' within anthropological literature. Such a people have a very intimate relationship with the land and with animals, which stands somewhat in contrast to a Westerner.

[19] Varela demonstrates perceptual guidance by action through his discussion of the 'visual guidance by action' through Held and Hein's kitten study, in which "Held and Hein raised kittens in the dark and exposed them to light only under controlled conditions. A first group of animals were allowed to move around normally, but each of them was harnessed to a simple carriage and basket that contained a number of the second group of animals. The two groups therefore shared the same visual experience, but the second group was entirely passive. When the animals were released after a few weeks of this treatment, the first group of kittens behaved normally, but those who had been carried around behaved as if they were blind: they bumped into objects and fell over edges". (Varela, 1993, p. 175).

[20] As outlined elsewhere (Woodward, 2010), the non-visual nature of an 'enacted dimension' of experience, as involving every aspect of possible human experience, in which there exists no division of the sense experience.

[21] Bahrick and Lickliter (2000) showed that five-month-old infants could differentiate between two five-element rhythms (of hammers hitting a surface) when the rhythms were presented bi-modally, (audio and video) but showed no evidence of differentiating the rhythms when they were presented uni-modally (video only). These studies all agree that auditory information redundantly supports the visual channel, and as such aids in comprehension and learning.

References

Ambrose, D. (2006) '30,000 BC: Painting Animality: Deleuze and Prehistoric painting', *Journal of the Theoretical Humanities*, 11(2), pp. 137-152.

Arnheim, R. (1974) *Art and Visual Perception: A Psychology of the Creative Eye.* Berkeley and Los Angeles, California: University of California Press.

Bahrick, L.E. and Lickliter, R. (2000) 'Intersensory redundancy guides attentional selectivity and perceptual learning in infancy', *Developmental Psychology*, 36, pp. 190-201.

Baktir, H. (2003) 'The Concept of Imitation in Plato and Aristotle (Aristo ve Plato'Da Taklit)', *Sosyal Bilimler Enstitusu Dersigi Sayi*, 2(2), pp.167-179.

Bartlett, F. C. (1923) *Psychology and Primitive Culture*. Cambridge: Cambridge University Press.

Bartrum, G. (2002) *Albrecht Dürer and His Legacy: The Graphic Work of a Renaissance Artist*. Princeton: Princeton University Press.

Bostock, J. (1957) *The Natural History of Pliny the Elder*. London: Taylor and Francis.

Cain, P. (2010) *Drawing: The Enacted Evolution of the Practitioner*. Chicago: Intellect.

Curruthers, M. (2009) 'Ars Oblivionalis, Ars Inveniendi: The Cherub Figure and the Arts of Memory', *Gesta*, 48(2), pp. 1-17.

Efal, A. (2000) 'Warburg's "Pathos Formula" in Psychoanalytic and Benjaminian Contexts', *Assaph - Studies in Art History*, 5, pp. 221-238.

Gombrich, E. (1960) *Art and Illusion: A Study in the Psychology of Pictorial Representation*. London: Phaidon.

Gombrich, E. (1970) *Aby Warburg: An Intellectual Biography*. Chicago: University of Chicago Press.

Harrison, C. (1998) 'The Aesthetic Act and Pure Form: 1874', in Harrison, C., Wood, P. and Gaiger, J. (eds.) *Art in Theory: 1815-1900*. Oxford: Blackwell Publishers, pp. 690-693.

Hutchins, E. (2010) 'Enaction, Imagination, and Insight', in Stewart, J., Gapenne, O. and Di Paola, E. (eds.) *Enaction: Towards a New Paradigm for Cognitive Science*. London: The MIT Press.

Ingold, T. (2010) *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*. London: Routledge.

Malafouris, L. (2007) 'Before and Beyond Representation: Towards an Enacted Conception of the Palaeolithic Image', in Renfrew, C. (ed.) *Image and Imagination: A Global Prehistory of Figurative Representation*. Cambridge: Mcdonald Institute Monographs.

McCloud, S. (1993) *Understanding Comics*. New York: Harper Perennial.

Noe, A. (2004) *Action in Perception*. Massachusetts, Cambridge: The MIT Press.

Potolski, M. (2006) *Mimesis*. London: Routledge.

Rampley, M. (1997) 'From Symbol to Allegory: Aby Warburg's Theory of Art', *The Art Bulletin*, 79(1), pp. 41-55.

Rampley, M. (2001) 'Mimesis and Allegory: On Aby Warburg and Walter Benjamin', in Woodfield, R. (ed.) *Art History as Cultural History: Warburg's Projects*. Amsterdam: G+B Arts.

Richter, P. (1976) 'Professor Gombrich's model of Schema and Correction', *British Journal of Aesthetics*, 16(4), pp. 338-346.

Sapir, I. (2006) 'Narrative, Memory and the Crisis of Mimesis: The Case of Adam Elsheimer and Giordano Bruno', *Studies across Disciplines in the Humanities and Social Sciences*, 1, pp. 84-96.

Sörbom, G. (2008) 'The Classical Concept of Mimesis', in Smith, P. and Wilde, C. (eds.) *A Companion to Art Theory*. London: Blackwell Publishing Ltd.

Yates, F. (1964) *Giordano Bruno and the Hermetic Tradition*. London: Routledge.

Yates, F. (1966) *The Art of Memory*. London: Routledge and Kegan Paul.

Wind, E. (1983) *The Eloquence of Symbols*. Oxford: Clarendon Press.

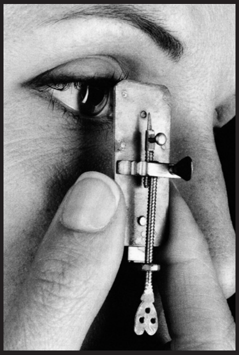
Woodward, M. (2010) 'A Brief history and Theory of Not Looking, Toward a Field Theory of the Audio-visual', *Transtechnology Research Reader 2010*, pp. 106-120.

Varela, F., Thompson, E. and Rosch, E. (1993) *The Embodied Mind: Cognitive Science and Human Experience*. Massachusetts, Cambridge: The MIT Press.

Varela, F. (1979) *Autopoiesis and Cognition: The Realization of the Living*. Dordrecht: D. Reidel Publishing.

Being Through Painting and Weaving: A Brief Commentary on Intuition

Martyn Woodward



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Being Through Painting and Weaving: A Brief Commentary on Intuition

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Prologue

Before you begin to read this paper, take a moment of your time to walk outside. Breathe in the air, feel the cold wind enveloping your body, and find a pebble or a rounded stone. Place the stone in front of you on your desk and choose a piece of classical music to listen to. Pick up the closest pen to hand, hold the stone in the other, and take five minutes to feel the inspiration. Then, make a mark(s) on the stone – any mark, anywhere. When finished, place the stone back on your desk, put the pen to one side. Leave the music playing if you wish, and continue to read.

Introduction

This paper represents the most recent attempt in an on-going project to formulate an account of artistic creation (in relation to the visual artefact) that leaves behind the prevailing notion that the human practitioner works upon, and is separate from, an inert material world. This idea is seen, in particular, in some of the contemporary approaches of psychology (Hodgkinson et al., 2008), where creative processes such as intuition and inspiration are understood as 'impulses' or 'feelings from within'; they are classed as somatic and affective hypotheses about the world that occur prior to rational thought, encased within the experiential dimension of the human body. Such accounts presuppose a clear boundary between the body in which the intuition or inspiration is 'encased' and the external world out of which it forms its hypotheses.

This model of creativity is embedded within particular 'matter-form' models of creation, such as that of 'hylomorphism' (Simondon, 1992), which have become axiomatic across much of Western art and media theory,[1] history and philosophy.[2] This theory maintains that an artefact (a statue, for example, or a basket) is created by the imposition of a pre-defined form (morphe) by the practitioner upon an external inert material (hyle). Its creation is understood in terms of a design specification applied to a material, which can be traced back to a pre-designed form in the mind of the human agent.

This paper, in contrast, proceeds from the claim that the mind cannot be confined to the brain or body of the practitioner, as accounts of the 'extended mind' reveal,[3] but extends into the wider components and processes of the environment, which include that of an energised matter. As such, what can be termed as the 'inspiration', 'impulse' or indeed 'intuition' underlying the human creative process cannot be fully accounted for by human agency, but requires a framework that can encompass a more distributed account of human creativity.

In the attempt to extend the notion of inspiration beyond the body of the practitioner, the work of Merleau-Ponty (1964), in particular, provides an account of artistic 'inspiration' that is distributed amongst the wider processes and forces of the milieu or environment that (in some way) gives rise to the figure depicted. Here, the formal, figural qualities of line and shape cannot be separated from the wider context of the object they are depicting or the materials being used. Merleau-Ponty reveals that, for practitioners such as modern painters, the very movement of the line's generation, of the stroke, is bound up in a complex entanglement of forces emanating from the body, the materials and the environment in which they work.

Following Merleau-Ponty, this paper moves the focus away from the analysis of a pre-established form imposed upon inert matter and focuses upon these distributed processes of 'form-giving' that give rise to 'human-made' forms. Through building an account of artistic inspiration that reflects upon the actual processes of the practices of painting and weaving, it provides an alternative account of the human (as drawn from the work of Merleau-Ponty, 1962; 1963; 1964) – one that is reciprocally bound to the environment, within which it can be situated as a small commentary upon the process of artistic intuition.

A distributed inspiration

In his work, *Eye and Mind*, Merleau-Ponty (1964, pp. 178-179) declares that the entire history of painting during the modern period, including its efforts to detach itself from illusionism in order to acquire its own dimension,[4] always had a metaphysical significance. However, this significance is of a different order to that accounted for by the idealists in the field of the psychology of perception. The metaphysical, for Merleau-Ponty, is existential – extending out beyond the body and intermingling with the objects of the world. His account of mind and inspiration, drawn from the arts, is a central tenet of his existential phenomenology; it is most fully articulated in his earlier work challenging the psychological accounts of mind that prevailed in the early 20th century, which viewed sensation as a reflex of external stimuli.

In *The Structure of Behaviour*, Merleau-Ponty (1963, p. 11-14) builds a model of existential 'stimulation' in which he argues there is no one direction of stimuli and response; instead, both the milieu and the organism's perception are co-constituted or intermingled, and emerge through movement and behaviour:

> The properties of the object and the intentions of the subject ... are not only intermingled: they constitute a new whole. When the eye and the ear follow an animal in flight, it is impossible to say 'which started first' in the exchange of stimuli and responses. Since all movements of the organism are always conditioned by external influences, one can, if one wishes, readily treat behaviour as an effect of the milieu. But in the same way, since all the stimulations which the organism receives have in turn been possible only by its proceeding movements which have culminated in exposing the receptor organ to external influences, one could also say that behaviour is the first cause of all stimulations. Thus the form of the excitant is created by the organism itself, by its proper manner of offering itself to actions from the outside. ... The environment emerges from the world through the actualisation or the being of the organism – [granted that] an organism can only exist if it succeeds in finding in the world an adequate environment. (Merleau-Ponty, 1963, p. 13)

For Merleau-Ponty, the properties of the milieu (of the object) and the intentions of the subject are co-constituted; there is no primacy of either world or perception (intention) as they are symbiotic and constitute a new 'whole' or reality, which is seen as emerging from this intermingling. As such, he declares that the true source of any 'stimulation' is movement or behaviour – a behaviour that is constituted by the co-dependence of organism and milieu. Merleau-Ponty's existential phenomenology thus provides an account of the mind of the practitioner as not confined by the boundary of the skin but extending into, and intermingling with, the objects and bodies that constitute the milieu, the cause of which is behaviour and movement. The effect is the emergence of a new reality or 'whole'.

The painter's vision is, for Merleau-Ponty (1964), not a 'physical-optical' view of the outside world. The world does not stand before the artist as a representation; rather, it is the painter to whom the things of the world give birth by a sort of concentration or coming-to-itself through the visible (a coming-to-itself that is born from the movements and gestures of the artist as they paint) (pp. 179-181). This understanding puts an emphasis upon the wider processes of how a painting comes about, rather than what a painting represents. As such, following the writings of modern artists such as Klee and Cezanne,[5] the activity of painting is seen as a rendering visible of the invisible forces that constitute the 'distributed mind' of the artist – forces and processes of mind that are distributed in the environment. As Merleau-Ponty (1964, p. 166) declares, the mind of the artist goes out beyond the body to wander among objects themselves. Built upon this distributed model of mind, his description of the processes of the painter during the modern period speaks of 'inspiration' in a literal sense:

> There really is inspiration and expiration of Being, respiration in Being, action and passion so slightly discernible that it becomes impossible to distinguish between who sees and who is seen, who paints and what is painted. (Merleau-Ponty, 1964, p. 167)

Merleau-Ponty's existential phenomenology accounts for a painter's mind that flows like air between the body and the world, between the subject and the object, beginning and residing in neither; mind cannot be attributed to a single body, but is relational between all bodies.

Merleau-Ponty's model of mind and painting as distributed amongst the processes of a wider system points toward an alternative account of the human, one that is in part coupled and in part symbiotic with the environment. This account finds further support within the later 'extended mind' hypotheses of cognitive science and anthropology, particularly as developed by Bateson (2000 [1972]) and Varela and Maturana (1979), whose 'systems theory' and theory of 'autopoeisis', respectively, provide an alternative model of the human as an organism that is coupled with the environment, where both mind and environment are emergent, immanent, through movement.

The 'extended mind' hypothesis

For thinkers such as Bateson (2000 [1972]), working within anthropology during the 1970s, the boundary assumed between organism and environment (that is, between an external 'physical' world and an internal 'mental' world) is not absolute. "The world of information processing is not limited to the skin" (Bateson, 2000 [1972], p. 460) and is seen, in some cases, as extended within a wider system of relations and processes involving the material world. For Bateson, who draws an epistemology and ontology from cybernetics, when seeking to explain the behaviour of man (or any other system), the system itself must be understood in its totality. In other words, the mental characteristics of the system are immanent, not in part, but in the system as a whole (p. 316). The mind is seen as immanent within a larger system of man plus environment (p. 317).

As such, Bateson maintains that to fully understand the mind is to look toward the practitioner as a part of a larger system of relations that they are working both with and within. This is characterised by his example describing the system of processes that comprise a man felling a tree with an axe:[6]

> Each stroke of the axe is modified or corrected, according to the shape of the cut face of the tree left by the previous stroke.

> This self-corrective (i.e., mental) process is brought about by a total system, tree-eyes-brain-muscles-axe-stroke-tree; and it is this total system that has the characteristics of immanent mind. (Bateson, 2000 [1972], p. 317)

For Bateson, the processes involved with the constitution of mind (or the mental), such as perception and cognition, are brought forth through the total system of relations involving the wider system of the material world. As such, he reveals, mind should not be confined to a process that exists solely within the boundary of a practitioner's body, but is, as anthropologist Ingold (2011, pp. 16-19) describes, 'leaky', constituted in part by processes that extend within the material world. Bateson believes that what designates the organism is always the organism plus environment – that is, an organism-environment system, maintained through the processes, movements and actions that cause the self-corrective (mental) processes to be brought forth from within.

The 'extended mind' hypothesis is characteristically embedded within the concept of 'autopoiesis' (Varela and Maturana, 1979; 2001). This maintains that cognition, perception and action emerge together within the relational, reciprocal system that includes body and world. An autopoeitic system is defined not by its individual components (as separate entities), but by the processes and relations between the components:

> An autopoietic system is organized (defined as a unity) as a network of processes of production (transformation and destruction) of components that through their interactions and transformations continuously regenerate and realize the network of processes (relations) that produce them; and constitute it (the machine) as a concrete unity in the space in which they exist by specifying the topological domain of its realization as such a network. (Varela and Maturana, 1979, p. 13)

An autopoietic system is understood as a network of components and processes, which reciprocally constitute each other. What the organism is able to do is structured by the abilities of the organism and its nervous system. The environment emerges out of the infinite possibilities for action that make up the world. For the organism, through its actions, the world is limited by what it is able to do and its possibilities for action. The enacted environment in turn limits the possible movements and actions, and this restructures the organism's own actions, and the system continues. Both the organism and the environment are enacted (emerge) reciprocally.

For Varela and Maturana, cognition and perception emerge within the whole system and are not confined within a single organism. The autopoietic system is brought forth through its own organisation, an organisation that "is not the material properties of its components, but the relations (or processes) between the components" (Varela and Maturana, 1979, p. 7). For Varela and Maturana, as for Bateson, mind is neither confined to the brain nor to the boundary of a single organism; it is distributed throughout the whole system of relations (including the external world) within the processes of the system's self-organisation.

The accounts of an extended mind outlined by Bateson and Varela and Maturana reflect the existential phenomenological accounts of a 'distributed inspiration' exemplified by the painters described by Merleau-Ponty: the artist never works alone, but is in constant reciprocal relationship with the world and the objects they are painting. It is by investigating more fully these distributed processes made visible by the practitioner that this paper will return to the concept of 'intuition' or 'inspiration', departing from the conventional psychological accounts and proceeding instead from the theory, drawn from the arts, of a distributed and extended mind, through a philosophical reflection upon the practices of painting and weaving.

Painting: lines, forces and movement

In his notebooks, Klee (1964; 1973) reveals through his experiments that the processes of creativity (the impetus to create) that give rise to 'human-made forms' are just as much a part of the energetic world we inhabit as they are of the human body. In reflecting upon his own practice of painting and drawing, Klee constructs an "elementary theory of creativity" (1964, p. 269), in which human subjectivity is not the only impetus in the creative process of the painter. In focusing his analysis not upon the final form of a work, but upon the very processes of 'form-giving', he was able to realise a theory of creativity that included energies external to the human body. For Klee, there is always a form-giving process to creativity that cannot be accounted for solely by human subjectivity. He demonstrates this through experimentation with what he terms 'sand figures' – he runs sound waves through layers of sand and analyses the forms and figures that emerge (fig. 1). Through such experiments, Klee was able to speculate that form is not applied to a material from the outside by a practitioner, but that:

> … [f]orm is set by the processes of giving form, which is more important than form itself. Form must on no account be considered as something to be got over with, as a result, as an end, but rather as genesis, growth, essence. … What is good is form-giving. What is bad is form. Form is the end, death. Form-giving is movement, action. Form-giving is life. (Klee, 1964, p. 269)

The shift of focus from a final form to the very form-giving processes that give rise to it is central to his theory of creativity. For Klee, to focus on a final form is to kill the form's very creation, to neglect the true genesis and growth of the form; form-giving itself is life. Klee's theory is a precursor of the later rejection of 'hylomorphism' characterised by Simondon (1992).

To frame his theory of creativity based upon these distributed form-giving processes, Klee (1964) draws an analogy with that of the growth of a seed, in which the impetus to grow (what he sees as the very act of creation) is not limited by an impetus from within the boundary of the organism's skin. Instead, "a certain impetus from without, the relation to earth and atmosphere, begets the capacity to grow" (p. 29). As he notes, a seed has extensions into the earth, water and air (fig. 2). These extensions are interdependent with the growth of the structure of the organism itself, its nutritional and nervous system (p. 31). For Klee, there is a mutual reciprocity between the nutritional organs and the environment (the greater 'breathing -space'), in that the nutritional value and breathing-space of the environment will allow the organism's structure to grow and enlarge:

> Extensions in the air and space and within [the] soil are interdependent, just as in developed organisms the functions of nutrition and respiration are interdependent. A broader nutritional base may give rise to large respiratory organs, while greater breathing-space may enlarge the nutritional organs. (Klee, 1964, p. 31)

In turn, the organism's growth will depend upon a newer nutritional value in the environment. Thus, the nervous system and its extensions into air and space and within the soil are interdependent with the organism's capacity to grow. This concept of 'organism' (as in the example of the seed) is extended to encompass the environment through external and internal energies. Klee uses it as an analogy to think about human creativity, in particular the growth of drawn and painted form.

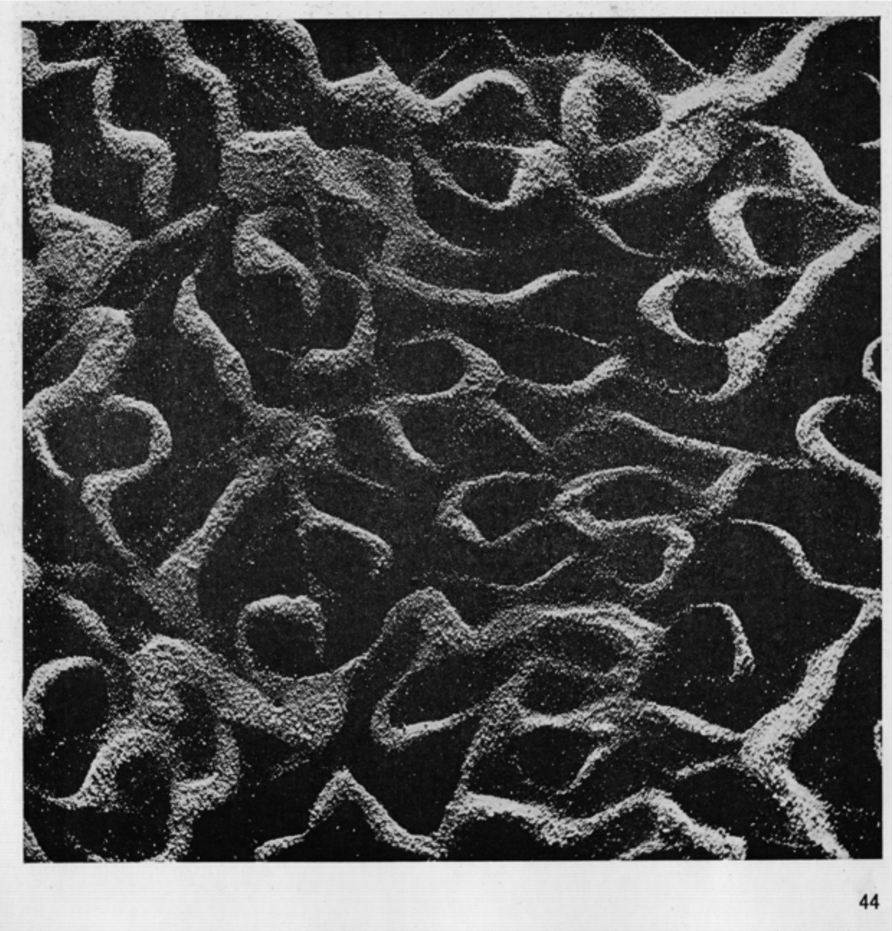

Fig. 1. Paul Klee: 'The Structure and Dynamics of Waves and Vibrations' (1973, p. 31)

For Klee, certain types of line (or strokes of a painter's brush) always begin from a point, just like a seed, and grow through the impulses (from within and without) that set it in motion. As movement is given to the brush, from a body within a world, the line is grown through this movement, which is enabled and impinged upon by energetic relations not only within the body (such as emotion and desire), but also within the environment (the atmosphere and the earth) and the materials used. Movement is thus the true generator of form, and also the site of agency: "The Primordial movement, the agent, is a point that sets itself in motion (genesis of form). A line comes into being" (Klee, 1964, p. 105).

Form (or figuration) is always the manifestation of the processes of form-giving within the entwining energies that are both resonated by the artist and by the material and environment in which the artist works. Thus the practice

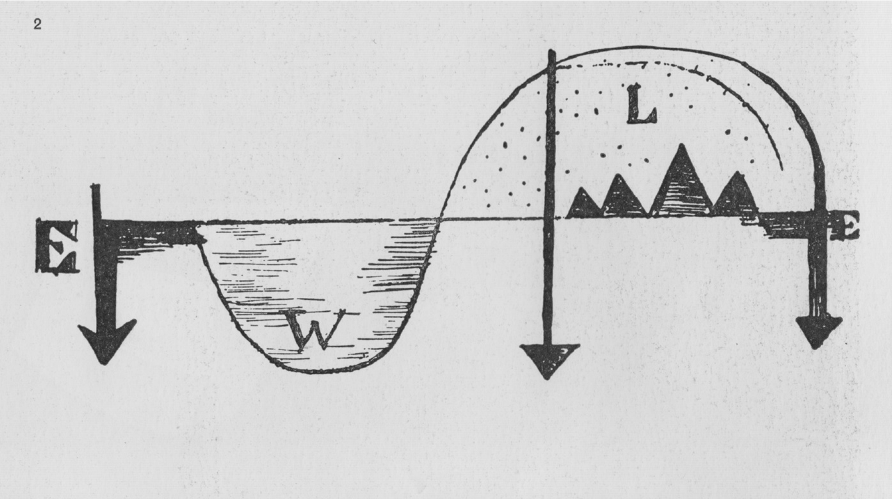

Fig. 2. Paul Klee: 'Earth, Water, Air' (1970)

of painting, for Klee (1964, p. 10), is always a form-giving process rather than a representational one; the strokes of the brush do not render the visible (that is, copy a world as seen by the artist), but render visible the energies and forces of the form-giving processes the artist is involved within. The painted line and the stroke (or figuration) are grown within the distributed and energetic form-giving processes that arise from the relationship between the body, the material and the environment.

The notion of figuration as rendering invisible energies visible is exactly what Deleuze (2002, p. 56), following Klee, claims to be the elementary task of painting itself. Deleuze recognises that for modernist painters such as Millet, Cezanne, Bacon and Van Gogh, a common notion is described, in that the act of painting is (in some respect) the process of capturing the energetic forces of the world: for Cezanne, painting had the task of "rendering visible the folding force of the mountains, the germinating force of the seed, the thermic force of the landscape", and with Van Gogh, it was a matter of inventing forces to be rendered, such as the forces of the germination of a seed (p. 57). For Deleuze, the move toward abstraction and the figural[7] by modernist painting was an attempt to attain sensation directly – a sensation that was related to external forces. For a sensation to even exist, a force must be exerted on the body:

> Force is closely related to sensation: for a sensation to exist, a force must be exerted on a body, on a point of the wave. But if force is the condition of sensation, it is nonetheless not the force that is sensed, since the sensation 'gives' something completely different from the forces that condition it. (Deleuze, 2002, p. 56)

For Deleuze, the 'forces of the cosmos', as outlined by Klee and Cezanne, are lines or threads that exert themselves upon the body and penetrate it, resulting in a sensation that promotes further action, much like Klee's sand figures. This rendering of force within figuration through sensation was exactly what he maintains Millet was alluding to when he defended his 'peasant paintings' from socialist

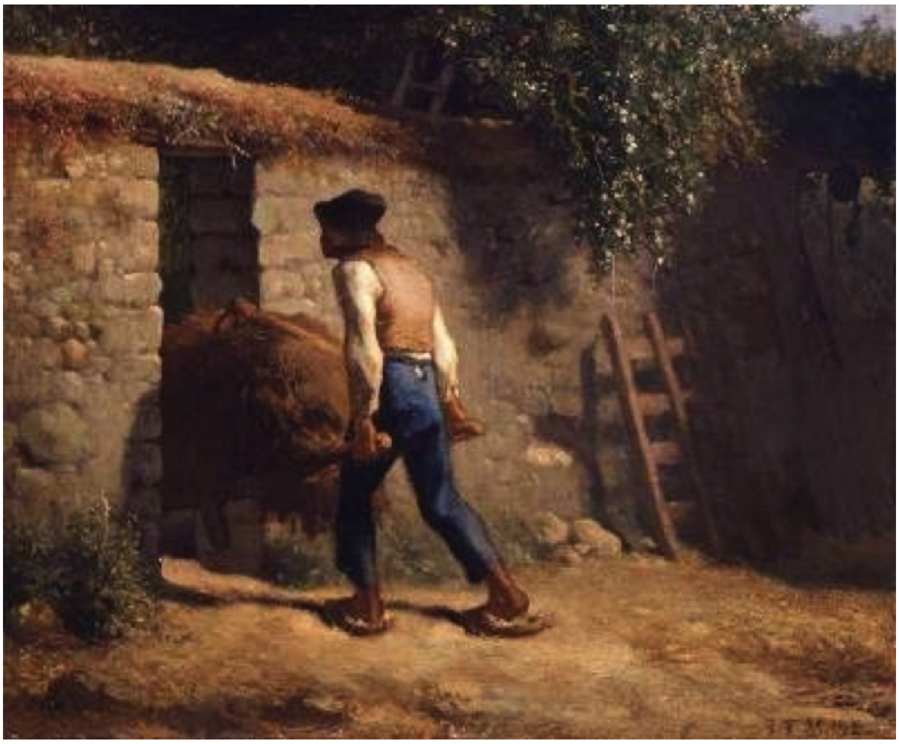

Fig. 3. Jean-Francois Millet: 'Peasant with Wheelbarrow' (1848-1852)

criticism during the late nineteenth century (fig. 3). When criticised for painting "peasants who were carrying an offertory like a sack of potatoes" in a figuration that was reserved for the gods, the artist responded by saying that "the weight common to the two objects was more profound than the figurative distinction" (Deleuze, 2002, p. 57). Deleuze claims that, as a modern painter, Millet (just like Cezanne and Klee) was striving to give a visible existence to the seemingly invisible forces of weight and gravity, and not merely portraying figurative sacks of potatoes or wheelbarrows of manure.

As revealed through a study of Klee's work, figuration within painting can be understood as arresting a much longer and more deeply distributed form-giving process that extends both into the body and into the world. In describing the growth of a stroke or line, we cannot ignore the impulse from the earth, from the sea, from the air, from the atmosphere, from the body and from the materials used. Movement is only possible because of forces of resistance, tension and energy that emanate from outside the body, as well as the energies and forces within; there is an impulse both from within and from without that begets the growth of form. As lines grow through these impinging forces, movement itself is the true generator of form. To understand the form solely in terms of the final form (as applied to a material by a human mind) is to kill the form-giving processes, the traces of the movement that gave rise to it. As Deleuze (2002) reveals, sensations, which give rise to figuration, are themselves lines – lines that extend both from the body and into the environment and vice versa. Sensations themselves are 'lines of force': lines from both the practitioner's body and the environment, which entangle, and which beget and enable motion, and generate the movement with which the figurative brush stroke of the painter is grown. In such an account, mind and inspiration is distributed within the movement beget by the body acting within a world.

The notion that the painted line is grown, born out of the generative nature of movement itself, can be extended to thinking about artefacts and material culture. Anthropologists such as Ingold (2011) conceive of artefacts not as made, but as grown within a field of distributed relational forces. Ingold maintains, with Simondon and Deleuze, that matter has properties, tensions, resistances and forces, which play a fundamental role in the form-generating processes of the artefact through a material engagement[8] with the human practitioner. Such an account of material engagement is revealed in Ingold's reflections on the form-giving processes of weaving a basket.

Weaving: threads, fields and layers

Ingold (2011, p. 215) believes that to read a work of art or an artefact entirely in terms of its form is to read creativity[9] backwards, to start from the outcome and to trace it, through a sequence of antecedent conditions, to an idea in the mind of an agent. Reflecting Klee's theory, he insists that a work of art is not an object but a 'thing', and the role of the artist is not to reproduce a preconceived idea, but to bring forth form through joining and following the forces and flow of the materials. The 'creative impetus' of things lies, for Ingold, not in the tracing back of a single idea, but in following the forward movement[10] of the flow of materials that gives rise to things – that is, the form-giving process itself.

In using the example of weaving a basket as a philosophical metaphor for the making of artefacts, Ingold (2011) asks whether we can really maintain that the basket has been created (made) through the imposition of a human design working on the surface of some raw material. Have the forces impacting upon the surface been applied from without (p. 341)? His answer is, not exactly. Basketry, he claims, involves the bending and interweaving of many fibres that may exert a considerable resistance of their own. The basket holds together, and assumes a rigid form, precisely because of its tensile structure (p. 342). The form of the basket, for Ingold, is thus the result of the play of forces, both internal and external to the material that constitutes it. The basket's form grows within a force field that catches the weaver up in a reciprocal dialogue.

Ingold describes the way the movement of the practitioner generating material forms is distributed within the resistances and energies of the properties of the material itself as an active force – a force that begets the very movement that generates the form:

> The actual concrete form of the basket … does not issue from an idea. It rather comes into being through the gradual unfolding of the field of forces set up through the active and sensuous engagement of practitioner and material. This field is neither internal to the material nor internal to the practitioner (hence external to the material); rather, it cuts across the emergent interface between them. Effectively, the form of the basket emerges through a pattern of skilled movement, and it is the rhythmic repetition of that movement that gives rise to the regularity of the form. (Ingold, 2011, p. 342)

What Ingold (2011, p. 353) refers to as 'skilled movement'[11] is, in Bateson's (2000 [1972]) terminology, an immanent property of a total field of relations constituted by the presence of the organism (the practitioner) in a richly structured environment.[12] That is, skill is always situated within a wider system, or 'field of forces', which is constituted by both the practitioner's movements and the properties, resistances and forces of the material itself that beget that movement,[13] and which cannot be reduced to a single formula. In this respect, Ingold sees the growth of artefacts as a process of 'autopoiesis' (p. 345) – the self-transformation over time of the system of relations within which the organism or artefact comes into being. Consequently, as the human practitioner is involved in the same system as the material with which they are working, their activity does not transform that system, but is part and parcel of the system's transformation of itself. Just as with the concept of 'autopeoisis', Ingold's schema of the creation of human artefacts foregrounds the processes that give rise to the form – processes, distributed between the material properties and the practitioner, that are beget by movement.

What Ingold makes transparent is that the form of the basket cannot be fully accounted for by the concept of a human design applied to a material. The actual form of the basket comes into being through the gradual unfolding of a field of forces created by the active engagement between practitioner and material: "This field of forces is neither internal to the material nor internal to the practitioner … rather it cuts across the emergent interface between them" (2010, p. 342). The form of the basket emerges (or is grown) through a pattern of skilled movement that is built up gradually over time as the practitioner increasingly comes to terms with the tensions and resistances of the material. It is the rhythmic repetition of that movement that gives rise to the basket's form. There is no template to work from. The developing form itself acts as its own template, since each turn of the spiral is made by laying the longitudinal fibres along the edge formed by the preceding one (p. 345). The action has a narrative quality, in the sense that every movement, like the line in a story, grows rhythmically out of the one before and lays the groundwork for the next (p. 347).

As Ingold reveals, much like the painted line, the basket's form grows within a distributed relational force field, within which the weaver is caught up in reciprocal dialogue. The developing form, the movement, acts as its own template – what is possible now came from the previous layer, which sets up a new field of forces within which the practitioner can work and is caught up in, reciprocally. The artefact (the basket), in short, is a crystallisation of movement and activity within a relational field, its regularities of form embodying the regularities of movement that gave rise to it (p.345). "It is within this weave that our projects of making, whatever they may be, are formulated and come to fruition" (Ingold, 2011, p. 348). Whilst we cannot attribute a 'true' agency to either the practitioner or the material, we can say that a possible site of agency (and, as such, elements of inspiration, impulse or intuition) could be the very movement that gives rise to the form, a movement that involves both practitioner and material, and both material and immaterial dimensions in equal measure, a movement within which form is grown as a trace of the distributed form-giving processes that gave rise to it.

From form to form-giving

Both these conceptions of form-giving maintain a common thread – that form is not to be understood as a fixed point to be analysed from above, but should be seen as the momentary resting of form-giving processes, of lines of movement, entangled within lines of energy, force and matter. A basket or a paint stroke is not, in this sense, an object or an artefact, but an 'entanglement', and the role of the maker is not to reproduce a preconceived idea, but to bring forth form through joining and following the forces and flow of materials. The origin of form is, then, not a single point of origin, but a bundle of lines of movement in counterpoint to the trajectories of the lines of force and energy that constitute the world. Form-giving is a forward movement following the flows and trajectories of matter that give rise to things – the trajectories of diverse constituents, in which the trajectories themselves are just as much a part of the emerging form as the form itself. In such cases, form – or 'entanglement' – is constituted by much deeper form-giving processes which are distributed along (im)material lines or threads of force, energy, properties, matter and movement, within which the practitioner is reciprocally entangled, following its trajectory and flow.

The accounts of creative practice by modern painters, philosophers and contemporary anthropologists, which recognise the extended nature of mind, point to a re-thinking of the ontology of human-made forms by departing from the analysis of form and the anthropocentric account of intuition of conventional psychology, and turning instead to an analysis of the distributed form-giving processes of the generation of form. With painting and weaving, the practitioner always works from within the world, not upon it. They do not think and feel solely from within the confines of the body, but from deep within the flow and forces of the world itself, of its lines of forward motion, following its trajectory as it becomes. As Klee (1964) reveals, the practitioner thinks through the very material they are using, from within the world that they work within; mind flows between the body, earth, sea, air and atmosphere. For the weaver, as Ingold (2011) shows, neither is the mind above nor nature below, they are symbiotic. Mind is in the very weave of the surface of the world itself, and as such it can be seen as distributed within matter, forces and processes.

From distributed mind to distributed human

> Had I wished to present the man 'as he is', then I should have had to use such bewildering confusion of line that pure elementary representation would have been out of the question. The result would have been vagueness beyond recognition. … And anyway, I do not wish to represent the man as he is, but only as he might be. (Klee, 1964, p. 53)

Klee's account of his depiction of the human as a bewildering confusion of lines (Fig. 6) is underpinned by his conception of the human nervous system as that of a seed, interdependent with its wider milieu – the air, sea and soil. This alternative model of the human suggested by Klee during the modern period echoes the philosophy of Bergson: his 'process philosophy' conceived of the human nervous system as "[a]n enormous number of threads which stretch from the periphery to the center [sic], and from the center to the periphery" (1911, p. 45), a periphery that, as Klee reveals, also extends into the environment.

This extension of the nervous system, and subsequent questioning of the boundary between organism and environment, underpins Ingold's account of the human, following thinkers such as Hagerstrand (1976) and the biologist von Uexkull (2010), which recognises every constituent of the environment – human, animal, plant, stone, building – as a continuous trajectory or thread of becoming that is always in counterpoint[14] to the rest of the 'tapestry of the world'. What is important for Ingold is von Uexkull's notion of the world as a tapestry or melody of lines and scores, in which the animal and the medium (the environment) are co-constituted.[15]

Ingold (2008) foregrounds von Uexkull's notion of counterpoint in order to re-think the boundary assumed between an organism's nervous system and the environment, conceiving the human organism itself as a counterpoint; not as a bounded entity, but as a line of becoming, whose very being includes that which it is a counterpoint to – the properties and energies of the environment. The notion of the bounded organism is a consequence of what Ingold terms the "logic of inversion" (pp. 70-72), a maintenance of an axiomatic distinction between man and nature, commonplace within network models across a broad range of disciplines.[16] This logic of inversion, Ingold reveals, turns the trajectories along which life is lived[17] into boundaries within which life is contained; life is thus reduced to an internal property of a bounded organism that occupies a world rather than inhabiting it (pp. 1797-1798). Ingold refutes the network model of relations by questioning the very need for a distinction between the organism (or 'node') and its line of connection or relation – that is, the need for a distinction between the material component and the immaterial process of relations.[18] He maintains that within a network model there can be:

> … no mutuality without prior separation of the elements whose constitution is at issue. That is to say, the establishment of relations between these elements – whether they be organisms, persons or things of any other kind – necessarily requires that each is turned in upon itself prior to its integration into the network. (Ingold, 2011, p. 70)

Crucially, for Ingold, network models of organisms treat the material 'node' (the organism) separately from its relations within the rest of the network (the processes) and, as such, logically entail that the organism and its nervous system are constituted prior to its engagement (or insertion) within the environment. Such a logic, he suggests, neglects the diverse and distributed counterpoints of von Uexkull's wider 'tapestry of the world' by maintaining that the material nature of the organism can be distinguished from the immaterial processes of its relations and interactions with the environment.

To undo this inversion, and to recognise fully the relational nature of being, is to repudiate the distinction between a thing (as matter) and their relations (as processes) – that is, to recognise that organism and environment are always constituted as a relation to each other (Ingold, 2011, pp. 69-70). The organism is not to be specified genotypically (as a separate body) prior to its entry into the environment, and conversely, the environment is not to be specified as a set of physical constraints, in advance of the organisms that arrive to fill it (p. 19); they are instead 'contrapuntal'. Ingold conceives of an organism not as a bounded entity, but as a bundle of lines; not as a node within a network, but as a knot within a tissue of other knots, whose constituent strands (or counterpoints), which become tied up with other strands, comprise not a network of relations, but a 'meshwork' or tapestry of the environment – a meshwork in which Klee's depiction of man as a bundle of lines finds a further resonance.

A brief commentary on intuition

It is within this context that the paper returns to the notion of 'intuition' as characterised by the psychology of perception referred to at the beginning. Can we still maintain that intuition is an internal hypothesis of an external world? A somatic feeling? We can, but only if we accept the body as separate from the material world in which it works. If, however, we look for 'intuition' within the wider distributed meshwork of entanglement within which the human practitioner works, we can no longer maintain this view. This paper suggests, instead, that a feeling of 'intuition' should be understood more as the 'virtual' presence of the wider fabric of

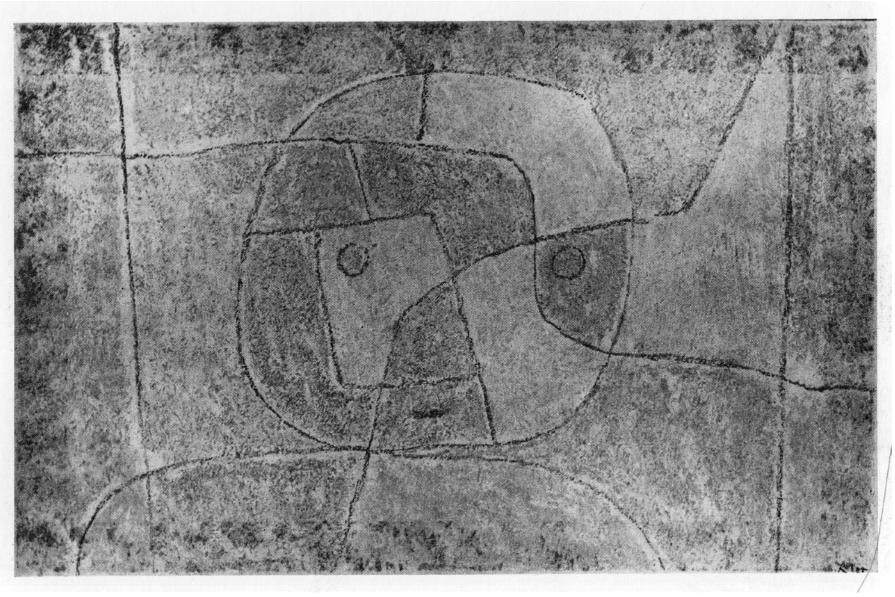

Fig. 4. Paul Klee: 'Child Ph' (1933)

reality that we are entwined within, the infinite possibilities for action and movement – a glimpse of the entangled meshwork we are all a part of, a glimpse of something outside of our assumed boundary of bodily and material existence, a glimpse into the possibilities for action and movement, both past and present, a glimpse of the entanglement. In this sense, intuition is never merely a hypothesis; rather, it is a moment amidst a process embedded within the very bringing forth of a reality itself. It is a momentary revelation of the bewildering confusion of line that, as Klee remarks, constitutes the human entangled within a meshwork of material and immaterial processes (fig. 4).

Epilogue

Whilst reflecting upon the content of this paper, return to the stone you marked and placed on your desk. Hold it in your hand once more and study the marks you have made. Feel the weight of the stone, its shape, its surface, and imagine the resistances that the pencil (or chalk or pen) you used to make the marks came up against. Imagine the resistances the pencil (or chalk or pen) itself caused. Remember the music you played whilst making the marks, and feel the temperature of the room around you. Study the marks in terms of the wider tapestry of forces and materials which begat your movement, and look for its traces within the marks you made.

Notes

[1] Specifically, the psychology of perception as represented by the work of Arnheim (1959; 1969; 1974), Gombrich (1964), a revival of Arnheim's psychological film theory for application within contemporary media and film studies (Higgins, 2011), contemporary film studies dealing with the mimetic and perceptual dimensions of film form (Marks, 2002; Sobchack, 2004), and the re-thinking of film theory in terms of perception (Elsaesser and Haganer, 2010).

[2] Dominant within much of Western philosophy and thinking since the time of Aristotle, and now a central axiom of mainstream modern thinking, the 'hylomorphic' (matter-form) model of creation describes a way of thinking about the creation of objects (substances) that conforms to the notion of the human mind (and the human organism) as autonomous from, and dominant to, the natural external world that the human agent works upon as if it were inert or 'dead' matter. Such thinking accounts for the generation of a 'thing' only in terms of the form imposed on inert matter by a productive human agent. Simondon (1986, p. 299) argues that, in privileging this anthropocentric model of creativity, the very agency of the matter itself (its properties, forces and resistances) that play a part in the actual processes of a thing's creation (the activity of physically making the object, involving the material forces and processes) are neglected and reduced to the process of "putting forward, or putting into effect, the already conceived form, from the mind of the productive agent".

[3] Proponents such as Bateson (1979), Varela (1979), Clark (2011) and Thompson (2010) reveal how specific processes of the human mind, such as cognition and perception, are external to the body, bound up within processes of engagement with a wider system, which includes the material world.

[4] Merleau-Ponty eludes here to the model of art history built upon the notion of the 'autonomy of art' – that is, art as autonomous from human perception and metaphysics. The influential work of Clement Greenberg (1960) and his followers helped it become the dominant account of the period.

[5] Merleau-Ponty (1964) believed that modernist painters had a sensitivity to such a situation in which the processes and activity of painting are caught up within the very processes between the body and the world. In citing the painter André Marchand, he notes that the artist is always penetrated by the universe as he paints, is always buried by the world he paints, through feelings, sights and sounds (p. 167). For Merleau-Ponty, the mind of the painter does not lie within the boundary of the body, it is distributed: "[t]he painter lives in fascination", fascinations which, to him, seem to emanate from the things themselves. For the modern painter, the very gestures most proper to him are not confined to his body, but are a part of the world itself. Merleau-Ponty cites Marchand's (after Klee) recognition of this world: "In a forest, I have felt many times over that it was not I who looked at the forest. Some days I felt that the trees were looking at me, were speaking to me … I was there, listening … I think that the painter must be penetrated by the universe and not want to penetrate it … I expect to be inwardly submerged, buried.“ (Marchand cited in Merleau-Ponty, 1964, pp. 167-8).

[6] This totality of the system Bateson (2000, pp. 317-319) sees as conventionally being eschewed by the commonly understood notion of 'self', in which a person may perceive an event they are a part of. A person may believe, he claims, that "I cut down the tree", and that they are the delimited agent which performed an act upon a delimited object. However, he says this belief is misleading, it a way of maintaining the separation of the internal mental processes from the physical external world. This 'false belief' that Bateson points to is outlined further in contemporary anthropology (Malafouris, 2008), in which it is conceived as a conflation of the notions of agency and ownership.

[7] The formal conventional accounts of modernist art claim that it aimed to escape the clichés of the past by focusing upon figuration (how an object is represented by the artist) or abstraction (investigating the essence of the medium itself), in order to either investigate the form of painting imposed by the artist, or the matter

of the practice itself.

[8] As Klee also reveals, such a materiality has been overlooked for too long in conventional accounts of creativity, which focus upon the notion of a designed form imposed upon inert matter (Ingold, 2010; 2011).

[9] By 'creativity' Ingold is referring to a form-giving process acting within a field of forces, which is distributed in a material engagement between the practitioner and the material world.

[10] Ingold builds his notion of 'forward movement' upon the work of Deleuze and Guattari, specifically their distinction between 'iteration' and 'itineration' (Deleuze and Guattari, 2004, p. 410). The work of iteration is one of reproduction of pre-defined form, whereas a work of itineration is creative, the co-substantiality between artisan and material that lies in the trajectory of forward motion.

[11] What Ingold describes as 'skill' he maintains is a skilled movement that is emergent (not purely implicit, not purely learnt), a product of the entire 'structural history' of the engagement of practitioner with the materials. What is possible through this skilled movement is based upon (but not entirely determined by) the structural history of movements and engagements.

[12] Ingold (2010, pp. 352-353) returns to Bateson's model of the axe-man (cf. previous section), in which he situates 'skill' within a wider system that is as much mental as physical. Thus, it is a property not of the individual human body, but of the total field of relations that includes axe, man and tree.

[13] Malafouris (2008) offers a further account of material agency within pottery. Here, the potter's intentionality is seen as emergent in the relationship between the material state of the clay that needs moulding, the speed of the wheel being turned, and the pressure needed by the potter to pull the pot into shape.

[14] For von Uexkull (2010), the rules or properties that constitute the environment can be said to shape, and be shaped by, the composition of an organism's cells – a shaping he sees as a 'melody' of development of both environment and organism, which expresses, in some way, both the properties of the environment and the properties of the organism. Forms (of organisms or environments) are contrapuntal (or plastic), emerging within multiple semi-independent melodic lines, always as a counterpoint to the entire composition, emerging from what is of interest to the organism(s) involved.

[15] "Nothing is left to chance in nature. In every instance a very intimate meaning rule joins the animal and its medium; they are united in a duet, in which the two partners' properties are contrapuntally made for each other …" (von Uexkull, 2010, p. 100).

[16] Ingold (2010) reveals how network images have become commonplace across a broad spectrum of disciplines, embedded within terms such as the 'web of life' in ecology, 'social networks' in sociology, and the 'agent-object network' in material culture.

[17] Such a trajectory is what Deleuze and Guattari (2004, p. 323) term a 'line of becoming', which is not "defined by the points it connects, or by the points that compose it; on the contrary, it passes between points, it comes up through the middle, it runs … transversally to the localized relation to distant or contiguous points. A point is always a point of origin. But a line of becoming has neither beginning nor end … only a middle … A becoming is always in the middle: one can only get in by the middle. A becoming is neither one nor two, nor the relation of the two; it is the in-between."

[18] As is evident within Varela autopoietic system, "[t]he organization of the system is not the material properties of its components, but the relations (or processes) between the components" (Varela and Maturana, 1979, p. 7), the organism is clearly bounded, in a reciprocal relation to the environment, constituting a network of components and relations, of separate material and immaterial domains.

References

Arnheim, R. (1959) *Film as Art*. Los Angeles, London: University of California Press.

Arnheim, R. (1969) *Visual Thinking*. Reprint. Los Angeles, London: University of California Press.

Arnheim, R. (1974) *Art and Visual Perception: A Psychology of the Creative Eye*. Los Angeles, London: University of California Press.

Bateson, G. (2000 [1972]) *Steps to an Ecology of Mind*. Chicago: University of Chicago Press.

Bergson, H. (1911) *Matter and Memory*. London: Allen and Unwin [Forgotten Books].

Clark, A. (2011) *Supersizing the Mind: Embodiment, Action, and Cognitive Extension*. Oxford: Oxford University Press.

Deleuze, G. (2002) *Francis Bacon: The Logic of Sensation*. London: Continuum.

Deleuze, G. and Guattari, F. (2004) *A Thousand Plateaus: Capitalism and Schizophrenia.* London, New York: Continuum.

Elsaesser, T. and Hagener, M. (2010) *Film Theory: An Introduction Through the Senses*. London: Routledge.

Gombrich, E. (1964) *Art and illusion*. Princeton: Princeton University Press.

Greenberg, C. (1960: 1986) 'Modernist Painting', in O'Brian, J. (ed.) (1986) *Clement Greenberg: The Collected Essays and Criticism*. London, Chicago: University of Chicago Press.

Hagerstrand, T. (1976) 'Geography and the Study of Interaction Between Nature and Society'. *Geoforum*, 7, pp. 329-34.

Higgins, S. (2011) *Arnheim for Film and Media Studies*. New York: Routledge.

Hodgkinson, G., Langer-Fox, J., Sadler-Smith, E. (2008) 'Intuition: A fundamental Bridging Construct in the Behavioral Sciences', *British Journal of Psychology*, 99, pp. 1-27.

Ingold, T. (2008) 'Bindings Against Boundaries: Entanglements of Life in an Open World', *Environment and Planning* A, 2008, Vol 40, pp. 1796-1810.

Ingold, T. (2010) *The Perception of the Environment: Essays on Livlihood, Dwelling and Skill*. London: Routledge

Ingold, T. (2011) B*eing Alive: Essays on Movement, Knowledge and Description*. London: Routledge.

Jenney, H. (2001) *Cymatics: A Study of Wave Phenomena and Vibration*. Newmarket, NH: Macromedia.

Klee, P. (1964) *Notebooks Vol.1: The Thinking Eye.* London: Lund Humphries Publishers .

Klee, P. (1973) *Notebooks Vol.2: The Nature of Nature.* London: Lund Humphries Publishers.

Malafouris, L. (2008) 'At the Potters Wheel: An Argument for Material Agency', in Knappet, K. and Malafouris, L. (eds.) *Material Agency: Toward a Non-Anthroprocentric Approach*. New York: Springer.

Marks, L. (2002) *Touch: Sensuous Theory and Multisensory Media*. Minneapolis: University of Minnesota Press.

Merleau-Ponty, M. (1962) *The Phenomenology of Perception*. London: Routledge Classic.

Merleau-Ponty, M. (1963) *The Structure of Behavior.* Pennsylvania: Duquesne University Press.

Merleau-Ponty, M. (1964) *The Primacy of Perception.* Illinois: Northwestern University Press.

Merleau-Ponty, M. (1968) *The Visible and the Invisible,* Illinois: Northwestern University Press.

Simondon, G. (1992) 'The Genesis of the Individual', in Crary, J. and Kwinter, S. (eds.) *Zone 6: Incorporations.* New York: Zone Books, pp. 296-319.

Sobchack, V. (2004) *Carnal Thoughts: Embodiment and Moving Image Culture*. Berkeley: University of California Press.

Thomspon, E. (2010) *Mind in Life: Biology, Phenomenology, and the Sciences of Mind*. London, Massachusetts: Harvard University Press.

Von Uexkull, J. (2010) *A Foray Into the Worlds of Animals and Humans with a Theory of Meaning*. London: University of Minnesota Press.

Varela, F and Maturana, H. (1979) *Autopoeisis and Cognition: The Realization of the Living*. Netherlands: D. Riedel Publishing.

Varela, F. and Maturana, H. (2001) *The Tree of Knowledge*, Massachusetts: Shambala.

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An Electrical Deep Time of the Modern Imagination

Giovanna Costantini's article in this issue of LIRIQ reveals an holistic voice for contemporary Art-science, through that of the Japanese artist Hiroshi Sugimoto, who traces the emergence of human thought over hundreds and thousands of years, to an indistinct 'origin' which merges with time and the universe. With this in mind, Costantini suggests that over time, human thought has become increasingly more detached from these indistinct origins, informed by a positivistic-materialistic world-view, and instead points to a more holistic account of human thought, free of positivism, in which matter and mind are inclusive, co-dependent, interconnected and reciprocal.

Knowledge, within this phenomenal and vitalist view, is manifest within a world in which subject and object are not separated, knowledge is emergent from, what Costantini terms a "primordial sea of being". Costantini points to an account of human history that is both "deep and dynamic", a process of continuous engagement in which thought itself is consistently reworked. Within Costantini's vitalist account of Sugimoto's work, such dualisms as nature and culture, earth and sky, past and present dissolve. The 'origins' that Sugimoto seeks are, for Costantini, revealed as the very essence of the creative process itself, a "vital energy born of the relationship within and over time." A force that Costantini maintains is a sustenance that inspires the very fusion of contemporary art and science, a "deeper" vitalist energy within which both art and science have emerged, from a shared primordial sea of being.

The Scientia 2013 call offers a further charter to these deeper waters, recognising that "knowledge during the period of the Scientific Revolution was inherently interdisciplinary, involving complex mixtures of fields and objects that had not yet been separated into their modern 'scientific' hierarchies." According to Michael Punt this is an indication of how the seventeenth and eighteenth century became a key moment within which the practices of scientific investigation, and that of the arts and crafts, were intimately linked through a complex and reciprocal entanglement involving a co-constructed knowledge. These entanglements are seen by Punt as "performative", in which knowledge does not 'control' and frame an external world, but is directly engaged with, and performed by the actors, along with its ontology. This moment during the modern period is suggested to provide a form of "theatrical engagement" which is being re-visited by contemporary scientists and philosophers of science with a perceived need to engage more with the wider spectrum of the arts and popular culture. This theatrical engagement offered, however, has a much deeper resonance than may be accounted for through attempts to fuse art and science currently realised. Costantini's "deeper" vitalism finds further recognition through the importance of the often neglected notion of *Deep Time,* formulated during the eighteenth century, as a fundamental aspect of modern thinking, (re)discovering the depths of human thinking that lie within the very deep structures of the earth.

Media Archeologist Siegfried Zielinski reminds us that during the turn of the eighteenth and nineteenth century, the notion that the earth was older than previously believed (as maintained through divine accounts) became a core topic within the academies (2002, pp. 3-6). For Zielinski, James Hutton's *Theory of the Earth* (1778), explained a history of the earth that was free of a theological dogma, and was conceived not in terms of a linear progression but as a *dynamic cycle* of erosion, deposition, consolidation and uplifting. As Zielinski describes, for Hutton, the earth had a *deep time*, that ran much deeper than the upper crust of the earth, that of granite, and extended into the sub-strata below which was now seen to co-constitute the upper layer. For Zielinski, Hutton's concept of the earth was as a cyclic self-renewing machine, without beginning or end, constituted by matter and energy flows.

The construction of a deep time to the earth brought a further implication for the very role and notion of the human itself. Shryock and Smail (2009) suggest in their re-thinking of modern historiography, the subsequent emergence of Charles Darwin's *On the Origin of Species by Means of Natural Selection* (1859) brought about a drastic change in the sense of the role of the human within the universe (pp. 26-27). The evolutionary approach of Darwin, they suggest, resulted in a new sense of human history, in which the human's role was no longer seen as essential and permanent, the human itself had a *deep time*: a deeper relation to the very environment in which they are situated. The human was now implicated within, and impacted upon, by distributed (and non-human) determinants.

For this deep time to figure more fully within an account of human history, Smail suggests that methods and narratives were needed that could triangulate between agents and materials, methods that could not be fully supported within the models of human cognition, which stressed the rational rather than relational, held at the time (pp. 30-31). The maintenance of a *materialist* account of history during the eighteenth and nineteenth century could not fully support the emergence of *deep time*—the immaterial, energetic and relational aspects—as such, Shryock and Smail offer a re-assessment of deep time's implications for both the human and human history by utilising a more contemporary distributed account of cognition and the human drawn from anthropology. What Shryock and Smail alert us to is an under-realised aspect of eighteenth and nineteenth century (modern) thought, that of deep time itself, that runs a lot deeper within human cognition, imagination and creativity than has been accounted for within conventional materialist accounts of history. A deep time that alludes to a model of mind, and of the human, which is itself distributed amongst much wider determinants than may have been accounted for.

This anthropological re-imagining of the modern period offers a re-assessment of the activities of artists and scientists, which begins to recognise the wider distributed aspects of their collaborations, themselves within the energies and flows of Hutton's account of the earth, that have determining roles to play upon the human. Whereas Costantini and Punt recognise the wider, distributed aspects of Artscience across many brains, imaginations and experiences, the suggested recovery of Aby Warburg's pathosformula (Punt) brings a pathosformula which is in part co-constituted within the wider *deep time* relations of the earth itself. Situating Warburg's thinking back within the emergence of *Deep Time* during the modern period, as Smail and Zielinski suggest within the work of Charles Darwin and James Hutton, points not just to the nuances of the collaboration between discrete practices such as craft and science; the engineering precision required for scientific repeatability, but to the 'deeper', distributed elements of the wider pathosformula of the time that both craft and science fundamentally share, to the wider dimensions of reality not entirely that of the human.

Such 'deep time' aspects of the modern era are becoming more increasingly acknowledged, such as the emergence of electricity; Morus' *Currents From the Underworld, Electricity and the Technology of Display in Early Victorian England*, and Benz's *The Theology of Electricity: On the Encounter and Explanation of Theology and Science in the Seventeenth and Eighteenth Centuries*. These accounts provide access to the deeper determining aspects of electricity upon the distributed pathosformula that the arts, crafts and sciences can be said to share and emerge from within, as Paolo Bertucci uncovers (2006), the emergence of electricity brought with it a different order of the natural world, which includes the human. Costantini's own reference of Faraday's Cage as a guide for Artscience, points not only to the conductivity of the entwined metal bars that share the electrical current but also to the conditions of the behaviour of electricity upon the very construction of the cage itself. To understand the deeply entangled and intimate relations between art and science more fully for a contemporary re-evaluation, is then not to begin from the material (and co-operative) engagements between diverse peoples as a site of origin, but to begin by situating both scientific and artistic practice themselves within the distributed, and deeper, pathosformula of the period—a pathosformula that is in part constituted by the emergence of electricity. The re-instating of the pathosformula within the deep time relations of the earth provide a meshwork to further develop the more holistic accounts of human thought, free of positivistic and materialistic world-views, a further voice for contemporary Artscience.

References

Bertucci, P. (2006) 'Promethean Sparks: Electricity and the Order of Nature in the 18th Century', in Zielinski, S. (ed.) *Variantology 1: On Deep Time Relations of Arts, Sciences and Technologies*, Cologne: Walther Konig, pp. 41–59.

Michaud, P. (2004) *Aby Warburg and the Images in Motion*. New York: Zone Books.

Papapetros, S. (2012) *On the Animation of the Inorganic: Art, Architecture, and the Extension of Life*. Chicago: Chicago University Press.

Shryock, A. and Smail, D. (2011) *Deep History: The Architecture of the Past and Present.* Berkeley: University of California Press.

Smail, D. (2008) *On Deep History and the Brain*. Berkeley: University of California Press.

Zielinski, S. (2006) *Deep Time of the Media: Toward an Archaeology of Hearing and*

Seeing by Technical Means. London: The MIT Press.

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Artifacts, Entanglements & Deep History: A Reflection on the Sublime in Art and Science

The emergence of deep history is shaping a contemporary concern with the origins of the human and its artifacts, beyond a reliance upon the written word of the (more shallow) past, which has formed a somewhat materialist history constituted by persons and things. Instead of a reliance upon documentary written evidence, a deep history attempts to re-instate the 'pre-history' of the written word – a genealogical and archeological history - through the *traces* of human consciousness left within human made artifacts, which themselves become containers for meanings and social relations (Shryock and Smail, 2011). Shryock and Smail insist that materials, just as the written word, contain *traces* of human kinship relations and exchanges. Seen within fossils, tools, pictures, household items, ecological change and genetic variation, these traces thus 'document' a deep history of the human mind, that extends into the material world. Such a reading of a deep history of the human through artifacts, may give evidence for an imaginary dimension of human desire (Punt, 2000), and by extension human perception, which opens up a deep history of the human beyond that of an axiomatic materialism.

Such a deep history would comprise a symbiotic treatment of material and immaterial - (im)material - dimensions of human experience, engaging within a world that itself is comprised of materials, forces and energies. Manuel DeLanda's non-linear geological history provides a useful guide, documenting the deep geological time and energy flows, which change speeds and momentarily harden to form the very crusts and landmarks of the environment (2000). Makers, such as designers and painters, have been sensitive to such an (im)material symbiosis through their practices. The painter Paul Klee's elementary theory of creativity recognised that form is always "set by the processes of giving form" (1964, p. 269), that energies and forces which are external to the practitioner, the properties of the materials used, beget movement and allow forms, such as painted lines and strokes, to emerge or grow. Such *form-giving* processes of growth involve not merely a single 'human' agent's intentions, but as contemporary studies in material culture have recognised, the very material properties, tensions, and resistances of matter itself (Ingold, 2010).

These (im)material *form-giving* processes of material engagement comprise, as the time geographer Torsten Hagerstrand termed, the texture of the world, a "Tapestry of Nature which history is weaving" (1976, p. 332), in which every constituent of the environment – human, animal, plant, stone, building - has (and is) a continuous trajectory (or thread) of becoming in counter-point to the rest of the tapestry. As the constituents move through time they encounter one another, and the trajectories of these diverse constituents are bundled together in diverse combinations of entanglements or knots. The Human, for Hagerstrand, as well as the human artifact, is always a counterpoint to trajectories constantly becoming, and as such is constituted by these trajectories just as much as their own threads of life. The origins that a deep history alert us to are, thus, not be found through an analysis of the traces left captured within the object themselves, but through the tracing of the *form-giving* process and trajectories that leave the traces.

Such thinkers concerned with this 'materiality' of form-giving maintain that the *origins* of human made tools, pictures or artifacts, are not to be traced backwards - from the outcome through a sequence of antecedent conditions, to an idea in the mind of an agent, but forwards - in recognising that the maker's role is to bring forth form through joining and following the forces and flows of materials themselves (Ingold, 2010). The 'creative origin' of an artefact lies, not in the tracing backwards to a single idea down a network of relations, but in the tracing of the forward movement, of the entanglements, following the flows of materials that give rise to things - the trajectories of diverse constituents, a tapestry or a meshwork.

An artifact is not, in this sense, an object (in distinction from a subject), or a 'thing' (as distinct from, but impacting upon humans), but is brought forth - is an *entanglement* of the joining and following of forces and flows of materials (Ingold, 2010). The origin of form is then not a single point of origin, but an *entanglement* of lines of movement in counter-point, the *form-giving* process itself. To trace a deep history of the distributed human through artifacts, then, is a question of tracing not an origin, but the form-giving processes - the trajectories of which the artifact is a counterpoint - the meshwork behind materials such as tools and pictures. Such a move could reveal a model of the human in which the (im)material nature of the meshwork, with the properties and energy flows of the material world, acts as an extension of human agency. Human desire, as much as a desire of the materials themselves, play out through degrees of resistance, dependency and engagement.

This (im)material meshwork of *entanglements* could constitute the very sublime experiences revealed by the preceding editorials, the “thrills of connection to a larger reality” (Malina) which come with the thrill of discovery, leading to a “feeling that there is something more to an experience than what is expressed or grasped at that point” (Sarukkai), a “fascination with the infinite unknown” (Punt). Such a feeling, however, could describe not an internal bodily affect, but could comprise a momentary reveal of the distributed entanglement of the human within a wider meshwork, which comprises the very fabric of the larger reality. Situated within this meshwork we could suggest that Science doesn’t necessarily deal with the altogether different world of instrumentation to that of the human senses that may be believed. Nor to that of the artist. Rather, Scientific instruments- just like fossils, tools and household items- could be seen themselves as a material trace of *kinshipping*, of desire, cognition and imagination (Drayson, 2011), entangled within the meshwork of the world. As the presence of the sublime within the disciplines of science and art could reveal the very connecting fabric of their interwoven nature, the sublime itself could be a key (or a thread pick) to unraveling this deep inter-woven tapestry of reality. A historiography of the human, and by counterpoint - of disciplines themselves, could be achieved through the very deep history of the artifacts, knots, entanglements and meshworks that give them form.

References

Delanda, M. (2000) *A Thousand Years of Nonlinear History*. New York, Zone Books.

Drayson, H (2011) *Gestalt Biometrics and their Applications*. PhD thesis. University of Plymouth.

Hagerstrand, T. (1976) ‘Geography and the Study of Interaction Between Nature and Society’. *Geoforum,* 7, pp. 329-34.

Ingold, T. (2000) *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*. London: Routledge.

Klee, P. (1973) *Notebooks Vol.2: The Nature of Nature*. London: Lund Humphries Publishers.

Punt, M. (2000) *Early Cinema and the Technological Imaginary*. PhD thesis. University of Amsterdam [Online]. Available at: http://dare.uva.nl (Accessed: 31 May 2012).

Shryock, A. and Smail, D. (2011) *Deep History: The Architecture of the Past and Present*. Berkeley: University of California Press.